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**Forest management planning  
framework  
Property rights and decentralisation**

**A Theoretical Overview**

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## Forewords

This working paper is the second of a series of three papers constituting a part of the author's PhD thesis entitled 'Design of a planning system for sustainable forest management in the Congo Basin'. In addition to the focus of this paper, institutional governance systems (IGS), the other two working papers examine various means of 'Linking normative and strategic planning in unique forest management planning' (Working Paper 52 - 2008) and 'the institutional governance system for forest management planning: a possible theoretical model' (Working Paper 54 - 2008). All three papers have been discussed in colloquia and revised by the author.

Congo Basin rainforests are among the world's most threatened (deforestation and degradation) ecosystems and constitute a major environmental problem nowadays. The absence of sustainable use has been partly due to the globally insufficient quality of forest management plans,<sup>1</sup> associated with the general lack of planning outcomes implementation. Various authors agree that the main reasons for forest management planning problems lie in inadequate institutional frameworks<sup>2</sup> and in the fact that institutional frameworks have been ignored in forest management planning processes. In other words, if forest management planning is of poor quality because current institutions provide a weak basis, the question is not only what types of institutions are needed, but more importantly how these must be developed. Going beyond classical statements in the forest planning literature that emphasise technical design in planning like Central European planning methods, operations research, this theoretical overview is based on recent developments in the multidisciplinary literature (social, political, economics, etc.) on new institutional economics theory and the institutional governance theory on natural resource governance, as well as on empirical data<sup>3</sup>.

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1 On 8.84 million ha of natural permanent forest (production forest), only 500.000 ha are managed sustainably and a management plan is applied to about 2 million. 80% of the Forest management planMP is of poor quality (International Tropical Timber Organisation (ITTO) (2005), Doucet & Vandenhoute (2006)). Here, forest management planning is the focus because the outcomes may mitigate global warming; improve the living conditions of local poor people, as well as economic efficiency (if goods are produced at the lowest possible cost). The forest management plans or contracts which have been approved by the Cameroonian forest administration become formal rules. These rules must then implemented by the forest concession holders for the FMU or the local government of the forest council area (cf. forest law 1994 and "Art. 222 sur l'aménagement forestier" (quoted by Présidence de la République du Cameroun (PRC) (1994,1995)). The situation of the rest of the forest production area is unknown. Until today, there are still only two forest concession enterprises.

2 Understanding the institutional situation is an essential prerequisite for improving forest management planning performance.

3 These questions may be considered in the light of case study results from India, Bolivia, Cameroon, Guatemala and Nepal.

Accordingly, this paper is based on the understanding that the institutional aspect of planning includes in Congo Basin region mainly two concepts: property rights and decentralisation.

The main tenet of this paper touches on reviews of recent developments and key issues in relation to property rights and decentralisation within the context of forest resource management. Therefore this paper revisits the debate about property rights<sup>4</sup> and decentralisation<sup>5</sup> of natural resources and brings together various issues. It indicates that this institutional framework has long been ignored and should be an important feature of future forest management planning and implementation.

The conclusion of this paper is that the present institutional framework is inappropriate<sup>6</sup> to achieve better forest management planning outcomes, and changes in this framework are suggested. This review puts forward the need for designing or integrating the institutional framework in the forest management planning process and for devising effective institutional governance systems for the forest management planning set-up that allows all stakeholders and specifically those at the local level to take control. Only efficient non-market institutions may facilitate the implementation of forest management planning implementation which may encourage forest management planning stakeholders to engage in planning implementation by providing appropriate incentives and reducing uncertainty. These analyses and conclusions mainly address forest concession and the forest management unit's framework. Additionally, the paper is relevant to forest councils in the tropical rainforests of the Congo Basin, specifically in Cameroon. It also focuses on the management of other CPR in different tropical countries. This paper will be of considerable interest to managers, practitioners and academics active in the area of tropical forest management planning in the Congo Basin.

I wish you a pleasant and inspiring read.

Sicco Dany Dogmo Pokem (Freiburg, Germany)

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<sup>4</sup> Hardin (1968)'s tragedy of the commons, the tragedy of anticommon, collective action, and the prisoner's dilemma, public and communal management, common property regime.

<sup>5</sup> Democratic decentralisation, political patronage, deconcentration, recentralisation.

<sup>6</sup> Confusing property rights systems and the failure of decentralisation processes (due to political patronage).

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## List of acronyms and abbreviations

CBNRM	Community Based Natural Resources Management
CF	Community Forest
CIFOR	Center for International Forestry Research
CPR	Common Pool Resources
FFMC	Forestry Fee Management Committees
FM	Forest Monitor
FMU	Forest Management Unit
GFW	Global Forest Watch
IMF	International Monetary Fund
ITTO	International Tropical Timber Organisation
NAS	National Academy of Science
NIE	New Institutional Economics
NGOs	Non-Governmental organizations
NPFE	Non Permanent Forest Estate
PFE	Permanent Forest Estate
PRC	Présidence de la République du Cameroun
RFA	Annual Forest royalties
SAP	Structural Adjustment Program
SSV	Sales of Standing Volume (SSV)
ToC	Tragedy of Common
TAC	Tragedy of the AntiCommon
UN	United Nations
UNCED	United Nations Conference on Environment and Development
WB	World Bank
WRI	World Resources Institute



# 1 Introduction

Throughout much of the last 20 years, international attention in forestry has focused on the plight of tropical forests, resource degradation, declining biodiversity and the impact of decreasing forest resources on the global climate. Less attention has been devoted to local issues of the decreasing access to forest resources and its implications for local people dependent on forests for securing their livelihoods. Only in recent years, the forest sector has undergone a fundamental transformation, largely as a result of restructuring, downsizing, changes in ownership and increased recognition of the multiple benefits that forests provide. Many efforts to reform the economic and political performance of many of the developing countries were made. The United Nations (UN 2004)<sup>7</sup> reported that the pursuit of sustainable development requires a political system that secures effective participation in decision-making. In this respect, many authors<sup>8</sup> show that the principle of sustainability is best secured by decentralising the management of resources upon which local communities depend and giving these communities an effective say over the use of these resources. More specifically it should promote local communities' initiatives empowering people's organisations and strengthening local democracy.<sup>9</sup> But the achievement of such a principle in practice is still distant<sup>10</sup>. The extent to which this principle can and should direct development policy as well as forest planning is still to be investigated. Therefore, Ostrom (1998)<sup>11</sup> showed that many of the forestry related political reforms<sup>12</sup> have not led to their intended outcomes and may even have generated counterproductive results.<sup>13</sup> She assumed that at the root of these counterproductive results, there is a real quest for a new world order where actions are assessed in the light of their impact on individuals, and where governments and their agents are held accountable at the local level. In this context some would contend that this should be the underlying reason to trust the new world order previously announced by Ostrom (1998).<sup>14</sup>

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<sup>7</sup> The following view was expressed at the Rio Conference which was subscribed by all major donor organisations and international agreements (UN 2004).

<sup>8</sup> Ribot (2004); Larson (2004); Oyono (2004a).

<sup>9</sup> See also Colchester (1995); Burger & Majer (2003); Earth Summit (2002).

<sup>10</sup> I.e. the lack of devising ways to sustain the earth's ability to support diverse life, including a reasonable quality of life for humans. This involves making decisions despite uncertainty, complexity, and substantial biophysical constraints as well as conflicting human values and interests (Dietz et al. (2003)).

<sup>11</sup> Cf. Ostrom (2007).

<sup>12</sup> Political reforms (property rights: privatisations, strong centralisation, forest community; decentralisation: taxation system, municipalities, for Cameroon "Comité Paysan Forêt", etc...).

<sup>13</sup> See also for review Castadot et al. (2007) and Ango et al. (2007) whose cases studies show that there is big gap between expectations of the Cameroonian forest communities and the actual problems the local communities are confronted with.

<sup>14</sup> See also Colchester (1995).

Others see this new world order as a means through which the costs of government can be decreased and active participation of the stakeholders, specifically, local communities can be enhanced. In addition to the decentralisation discourse there is serious confusion about property right regimes in most of the developing countries, especially the lack of incentives for sustainability that have generated past misunderstandings and inadequate institutional reform efforts, such as strong central governments or privatised government owned assets and the currently promoted decentralisation of resource control.<sup>15</sup> Furthermore, in this paper it is assumed that the forest management planning is an appropriate vehicle through which the existing form of governance can be challenged. In fact, Dietz et al. (2003) argued that in the absence of effective governance institutions at the appropriate scale, natural resources and the environment are in peril from increasing human population, consumption, and deployment of advanced technologies for resource use, all of which have reached unprecedented levels. They show that the threats of massive ecosystem degradations are results of inadequate governance.<sup>16</sup> Inshore tropical Cameroonian forests are similarly degraded where there is open access, privatisation, or a top-down ruling regime, leaving specifically local users but also other stakeholders with insufficient autonomy and understanding to design effective institutions. For example, the degraded Forest Management Unit (FMU) or forest council in Cameroon is governed by top-down rules based on models that were not credible among the stakeholders. As a result, compliance has been relatively low and there has been strong resistance to strengthening existing restrictions. This is in marked contrast to some cases, which have been governed by formal and informal user institutions. Consequently it is highlighted that the consideration of the forest as Common Pools resources (CPR), which is collaboratively planned by various stakeholders<sup>17</sup> employing credible rules, may result in very high levels of law compliance or forest plan implementations. This paper therefore introduces the need for a novel approach to forest planning which allows the local actors (forest users), owners, planning experts, as well as any other stakeholder group to jointly design the forest management plans, because such a governance system can increase the users' trust in the end product as well as complement the intuitive planning skills of the forest planning experts.

In this respect, Congo Basin rainforests are among the world's most threatened (deforestation and degradation) ecosystems and constitute a major environmental problem nowadays. The

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<sup>15</sup> Ostrom (1998, 2007); Barnett et al. (2000); Hobley (1996).

<sup>16</sup> Dietz et al. (2003).

<sup>17</sup> Collaborative planning aims at creating self motivated co-operation and trust among the participants and avoiding responses originating from reactive and conflict driven thinking and interaction.

absence of sustainable use has been partly due to the globally insufficient quality of forest management plans, associated with the general lack of planning outcomes implementation. Various authors agree that the main reasons for forest management planning problems lie in inadequate institutional frameworks and in the fact that institutional frameworks have been ignored in forest management planning processes. In other words, if forest management planning is of poor quality because current institutions provide a weak basis, the question is not only what types of institutions are needed, but more importantly how these must be developed. As the owner of the forests the state, with its coercive force, is not a neutral party. Therefore it becomes a major issue that the government shows credible commitment and does not abuse its power. Therefore poor governance, e.g. caused by corruption, the government's lacking capacity to monitor forest companies' operations, or insufficient enforcement of legislation, is detrimental.<sup>18</sup> Consequently, forests become the centre of many conflicts<sup>19</sup> between stakeholders who are mostly excluded from the planning process or just passively consulted to keep "social peace", this is especially the case in relation to local people. The lack of credible commitment by the main stakeholders, their confidence in the ongoing classical planning, and the limit of the state to pass and enforce appropriate property rights led to the inefficient planning outcomes or institutions that have evolved in different countries of the Congo basin. Such an environment discourages investments in socially profitable enterprises, and creates groups interested in maintaining the current constraints for their own benefit. In fact, the forest management plan mostly serves the interests of companies and neglects those of local communities that have the traditional rights to use the resources. Due to these failures of classical and traditional planning<sup>20</sup> compliance with and effective enforcement of forest management plans has been very low. The development of credible commitment to the forest management planning process equally integrating the main stakeholders is a necessary condition for successful planning implementation and economic growth according to North (1986).<sup>21</sup> At the moment institutions are designed by the dominant stakeholders with greater bargaining strength and not for the sake of efficiency; some of the current procedures are not very efficient and may persist for a long time, resulting in the

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<sup>18</sup> Enormous debt burdens; a lack of democratic space for meaningful civil society involvement, corruption and unfavourable technical, financial, political and institutional conditions inhibit the emergence and implementation of policies that would facilitate ecological, economical and social sustainability.

<sup>19</sup> Not well defined property rights system, failure of the decentralisation reform, inadequate benefit sharing system...

<sup>20</sup> It is a complex contracting that allows the forest company and the states to capture the gains from the forests harvesting in a world of impersonal exchange which is not accompanied by third-party or neutral enforcement which is here the main stakeholders for forest planning.

<sup>21</sup> See also North (2005).

failure of the planning process outcome. The key to economic efficiency are different property rights, which depend on political effectiveness.<sup>22</sup>

To address these concerns, this paper raises fundamental questions in relation to institutional governance aspects of the forest management planning process within the forestry sector. These are: What are the impacts of institutional change on forest management planning or on formal and non-formal forestry institutions? Does decentralisation have a positive impact on the conservation and use of natural resources? How central is a restructuring of the property rights framework to enable effective institutional change or decentralisation? These questions emphasise once more the complexity of the institutional governance system of forest management planning. Within this context Webster (1990)<sup>23</sup> raised the question whether such reforms are necessarily a 'good thing'? Do changed property rights, decentralisation and devolution reforms lead to greater equity in forest management planning outcomes? Is this an attainable goal or principle? Is the quest, spearheaded by Western-based doctrines leading to efficiency and accountability of public organisations, as prescribed by the predominant 'development' approach pursued in developing countries? Or are investments and privatisation an appropriate response to the needs of villagers who want to gain greater control over the use of and access to natural resources? Under what circumstances are common pool resources sustainably managed? These questions may be considered in the light of case study results from India, Bolivia, Cameroon, Guatemala, Nepal, and the Congo Basin countries. Some experts from these countries question the validity of a direct transfer of Western ideology about property rights and decentralisation systems to developing countries.<sup>24</sup> In reality, the ongoing development approach for the Congo Basin, for example, has been characterised by excessive centralisation, large-scale investments and the employment of modern technology, which has often resulted in severe inequalities and widespread impoverishment. Consequently, previous measures have frequently given rise to unregulated industry and concessions with capitalist interests contributing to both environmental degradation and the dispossession and impoverishment of indigenous people. These negative effects of policy reform pursued in developing countries and imposed by the World Bank and International Monetary Fund (WB, IMF) have already been proven in many countries, specifically in Congo Basin countries.<sup>25</sup> The alternative approach to development,

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<sup>22</sup> North (1990, 1992).

<sup>23</sup> Webster (1990 cited by Osmaston & Webster 2004).

<sup>24</sup> Ostrom (2007).

<sup>25</sup> See Forest Monitor (FM) (2001).

which is exemplified by the grassroots environmental movements<sup>26</sup>, is characterised by small-scale activities, improved technologies, and local control of resources, widespread economic and social participation and environmental conservation.<sup>27</sup>

This working paper highlights social and policy dilemmas and makes use of various secondary data indicating how to improve collaboration between stakeholders within forest management planning procedures. It examines the prerequisites for effective institutional normative, strategic, tactical and operational forest planning, and also the establishment of an institutional framework to ensure successful implementation. In this regard, it is important that the new institutional economics (NIE), institutional governance and social and participatory theories and methods are considered. One hypothesis is that, as the users of natural resources gain more control, the management of these resources and the scope for poverty alleviation improves. Devising effective governance systems is akin to a co-evolutionary race. A set of rules crafted to fit one set of socio-ecological conditions can erode as social, economic and technological developments increase the potential for human damage to ecosystems, and even to the biosphere itself. Furthermore, humans devise ways of evading governance rules. Thus, successful commons governance requires that rules evolve.

As the title suggests, this paper's main focus is on forest management planning and its institutional framework. It touches on recent developments and key issues in property rights, decentralisation of public forest administrations, benefit-sharing arrangements, prevention of illegal logging and cross-sectoral linkages. This paper is subdivided into five sections. Following this introduction consisting of the problem statement, the objectives of the paper, as well as an overview of the document's structure, the second section addresses the New Institutional Economic theory and the Institutional Governance theory, as well as empirical evidence referring to forest management planning. The latter serve as excellent examples for applying these theories because of the multi-functionality and complexity of the tropical forests investigated. The third section discusses property rights systems reviewing the definition of the term institution as well as the property rights debate, specifically the "tragedy of the commons" (ToC), "the tragedy of the anticommons" (TAC), and the common pool resources debates and their governance principles. The fourth section deals with the institutional governance theories or approaches like the decentralisation concept (definition,

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<sup>26</sup> See FM (2001).

<sup>27</sup> Ghai & Vivian 1992: 15 cited by Redclift (1995).

form, dimension and its effect or impacts on the management of the commons). The last section provides the conclusions derived from the analyses presented in the previous sections.

## **2 Theoretical reference for the institutional framework needed for forest planning**

The theoretical reference is based on a literature review focusing on institutional frameworks in forestry and recent empirical data. This theoretical reference principally includes the theories of NIE and institutional governance. Altogether the review incorporates findings presented by many different authors<sup>28</sup> around the world.

### **2.1 New institutional economics and institutional governance**

The approach of NIE has been described by North (1992) as an attempt to integrate institutionalism or to incorporate a theory of institutions into mainstream neoclassical economics. In contrast to the many earlier attempts to overturn or replace neo-classical theory, the NIE theory builds on, modifies, and extends neoclassical theory to permit it to come to grips and deal with an entire range of issues previously excluded.<sup>29</sup> NIE has been understood by North (1992) as a result of changes in the institutional matrix that defines incentives for structuring society, as well as political and economic institutions, which are the underlying determinants of economic performance. Thus, NIE expands neo-classical economic theories in order to explain economic behaviour by incorporating a property rights analysis, an economic analysis of law, public choice theory, constitutional economics, the theory of collective action, transaction costs of economic performance, hierarchy and organisation, the principal-agent approach, the theory of relational contracts, and comparative economic systems.<sup>30</sup>

This paper solely deals with property rights regimes, because of their importance in relation to tropical Cameroonian forests. A few key aspects of different viewpoints about ownership can be singled out. Starting with the so-called “property rights school”,<sup>31</sup> property rights have

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<sup>28</sup> Bhagirath & Engel (2006); Agrawal & Ostrom (2001); Agrawal & Ribot (1999); Sekhar (2000); Agrawal (2001); Dietz et al. (2003); Ostrom (1998, 2007).

<sup>29</sup> North (1992).

<sup>30</sup> A detailed discussion of NIE can be found in Eggertsson (1990), North (1986,1990,1992), Ménard (2000).

<sup>31</sup> They argued that private property is the most appropriate way to make the individuals internalise the externalities. Instead a solution is found by developing and enforcing a system of defined individual property rights. Those inconvenienced by pollution and other externalities, would sue those responsible for the inconvenience. In other words, here, the most appropriate way to make the individuals internalise the

been defined as social relations with respect to the use of scarce resources and enforced through a variety of means that include formal laws, informal norms and private initiatives. Ownership has thus been interpreted as a form of aggregation of such social relations in a bundle of rights over the use of scarce resources. Demsetz (1967) defined property rights as rules that define or delimit the range of activities granted to individuals in dealing with specific assets. These rules are also instruments for stakeholders involved and derive their significance from the fact that they help form expectations in relation to dealings with others.

Property rights are expressed through laws, customs, and mores of a society. This includes the right to use an asset, the right to derive income from an asset, the right to transfer ownership of an asset, and the right to exclude others from using this asset. Property rights structure the incentives present in an economic system which in turn influences economic behaviour of each economic agent. In fact, property rights significantly affect the incentives individuals' face, which ultimately determine the final outcome of forest resource management. Bhagirath & Engel (2006) argued that an important reason for the massive degradation of natural resources in developing countries is a lack of well-defined and secure property rights,<sup>32</sup> for example, 18.000 people live inside and/or near forest concession areas, "Concession Forestière Camerounaise"<sup>33</sup> in East Cameroon, These people believe to be the true owners of the forest (community forests). At the same time, the state claims to be the owner of the forests and converts these into forest concessions without taking into account local forest peoples living in extreme poverty. This situation presents the permanent conflicts. The same situation prevails in reserves, parks and/or protected areas. Consequently, due to the lack of an adequate institutional framework and unclear property rights the forest management plans elaborated by the forest holders are still not being implemented in Cameroon resulting in road blockings by rural communities during log transports, for instance.<sup>34</sup> The reform of the property rights system in Cameroon does not solve the problems by means of introducing forest communities. The implementation of these is also critically questioned<sup>35</sup> and not all villages have the opportunity to become a forest community because they are located inside the forest concession. In this respect, the NIE approach stresses the need to explore how the

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externalities is by creating private property. Another way to best deal with these externalities, such as pollution and traffic noise, is government intervention. (see for more Baland & Platteau (2000); Demsetz (1967); available also at: [www.uk.geocities.com](http://www.uk.geocities.com) (accessed 14.10.2008).

<sup>32</sup> Ribot (2002); Larson & Ribot (2004).

<sup>33</sup> "Concession Forestière Camerounaise" a company which belongs to the French "Groupe Rougier".

<sup>34</sup> Djomo et al. (2000).

<sup>35</sup> Ango et al. (2007). Une expérience de gestion forestière locale et décentralisée au Cameroun. La forêt communautaire de Kongo. Castadot et al. (2007): Séduisante Théorie douloureuse pratique: La forêt communautaire camerounaise en butte à sa propre législation.



definition and enforcement of property rights influence the manner in which economic agents behave but especially to seek solutions to how to overcome these property right problems. The question that arises is: How can management planning outcomes or regimes be determined?

## 2.2 Institutional governance

Institutional governance looks at governance<sup>36</sup> regimes at the institutional level. The governance regimes cover important aspects of decentralisation which represent new extensive forestry reforms of the last two decades. These reforms have fundamentally transformed the institutional conditions for natural resource governance in most developing countries, specifically the Congo Basin countries. In fact, the total disregard of land and resource rights of many forest peoples is often a major source of conflict between a national government, corporate logging interests and forest peoples. This shows that the forest governance regime depends on the behaviour of several actors. However, the customary law of forest peoples, based on their traditional practices and cultural values, has often been undermined or even replaced by statute law imposed by a colonising power or otherwise adopted and imposed across the land within the national boundaries, without consultation or consent of forest peoples.

In Cameroon, under Law 94, the local people's rights to land are recognised and protected, yet in practice these rights are ignored or not enforced, which benefits the forestry sector industries and the government. This issue illustrates how “the game is played” or the “governance of contractual relations”. In this context two approaches will be of interest in reviewing the institutional framework of forest planning: the decentralisation or devolution mechanism<sup>37</sup> as well as participatory and conflict resolution mechanisms (distribution of power). These two approaches of the “Institutional governance mechanism” have been described by Overdevest & Rickenbach (2006a,b) in the sense of a market based mechanism,

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<sup>36</sup> The concept of “governance” was used in the 1990s by the “new public administration,” the National Performance Review, and the reinventing government movement in the United States to reflect the idea of implementing public policies not just through governmental bureaucracies but also through a variety of public-private partnerships, outsourcing, and privatisation. A parallel influence in the 1990s was the growing importance of networking (including electronic networking) in policy development and coordination: governance was associated with networking, whereas government was associated with traditional bureaucratic hierarchies in public administration (e.g. Hajer & Wagenaar (2003)).

<sup>37</sup> Institutional change towards a new institutional order in forestry which has been promoted as a new approach to benefit sharing.

signalise mechanism and learning mechanism. However, only the former of these two approaches - the more relevant in the context of this paper - will be analysed in more detail since this paper cannot cover all aspects.

### **3 Institutional change in forest management planning: Term definition and dimension**

#### **3.1 Institutions as a key to forest planning**

A central focus of human activity has been, and continues to be, the effort by human beings to gain greater control over their lives by developing a structure to order their relationship to the environment. In effect, the ubiquitous objective has been to reduce the uncertainty that characterises that environment. Throughout most of history, North (2005) highlighted that the central uncertainty has been the physical environment; but as humans have increasingly gained greater control over the physical environment with the development of science and technology, he argues that the main uncertainties are now resulting from human interaction which have taken overwhelming priority.<sup>38</sup> In recent decades, economists have increasingly given attention to the interrelations between institutional structures and economic behaviour in order to understand how institutions and transaction activities can affect development within a community. For example, Lucker & Kundhlande (1998) argued that property rights affect the expansion of the market system, production and distribution of output, and affect incentives to efficiently manage resources.<sup>39</sup> In contrast social scientists emphasised the deeper and more resilient aspects of social structures.<sup>40</sup> In some cases, human interaction is characterised by pervasive uncertainty, which manifests itself in transaction costs to exchange. Institutions are a way to reduce this uncertainty and make it possible to secure gains from trade.<sup>41</sup> However, there is no need for the domination of one approach over another in a large and diverse discipline dealing with equally diverse versions of government.

There is no standardised definition of the term “institutions”<sup>42</sup> and there is little agreement about the meaning of the term. The definition applied in this paper is based on those of North

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<sup>38</sup> North (2005).

<sup>39</sup> Lucker & Kundhlande (1998).

<sup>40</sup> Review of processes through which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behaviour (Scott (2004) quoted by Ostrom (2005)).

<sup>41</sup> North (1990, 2005)

<sup>42</sup> See Ostrom article about “an Agenda for the study of institution” for a careful examination of the definition of institution (Ostrom (1986)).

## Institutional change in forest management planning: Definitions and dimension

(2005), Ostrom (2005) who defined “institution” as a set of rules, norms, and routines<sup>43</sup> of an arena (action situation) in a society, which impose constraints on the actions of agents. They structure incentives in human exchange, whether political, social, or economic.<sup>44</sup> These rules, norms, and routines are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life.<sup>45</sup> Institutional<sup>46</sup> theory distinguishes between formal (De jure) and informal (De facto) institutions (normative behaviour codes) and their enforcement characteristics. Economic performance is determined by the combination of rules, norms, and enforcement characteristics.<sup>47</sup>

- a) De jure rules or formal rules (or constitutional order): these are state rules and/or enforced rules. Their legitimacy depends on the enforcement power of the state. People may be forced to follow these rules even if they contradict local norms and informal rules. They include statute law, common law, regulations, property rights,<sup>48</sup> contracts, taxes, subsidies and so forth and all citizens are subject to sanctions in case of violation. These rules can be modified or changed easily through legislation whenever there is need for change, therefore these rules can be changed overnight. The state may not engage in private contracts but can regulate these;
- b) De facto or informal rules or normative behaviour codes:<sup>49</sup> these are based in local power and authorities and may derive legitimacy from local culture and norms. In some circumstances their effectiveness may persist despite contradicting De jure rules. These informal constraints are part of culture which are voluntarily observed as norms, as conventions, norms of behaviour, cultural values and self imposed codes of conduct. Informal norms only change gradually.<sup>50</sup>

Feder & Feeny (1991) and Van Kooten & Wang (2001) argued that De jure and de facto codes evolve slowly whereas the institutional arrangements may be modified more easily. Specifically in Africa, Asia and South America, they showed that all three categories of institutions are evolving over time but also that it is very likely that they are likely to lack

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<sup>43</sup> The prescription that humans use to organise all forms of repetitive and structured interactions or social structures that have attained a high degree of resilience (Ostrom (2005).

<sup>44</sup> North (1990, 1992); Furubotn et al. (1997); Menard & Shirley (2005).

<sup>45</sup> Scott (2004) quoted by Ostrom (2005).

<sup>46</sup> Based on North (1990); Eggerston (1990); Feder & Feeny (1991); Van Kooten & Wang (2001).

<sup>47</sup> North (1990) compare: Feder & Feeny (1991); Van Kooten & Wang (2001).

<sup>48</sup> There are some informal rules within the property rights system.

<sup>49</sup> This is fundamental: cultural values influence and shape all institutional arrangements.

<sup>50</sup> North (1986); North (2005); Van Kooten & Wang (2001).

congruence. In this respect, although the formal legal system may provide for alienability, the transfer of land to private owners may represent a violation of cultural norms. For example, the legal framework established forest concessions (private firms) against traditional norms in Cameroon. Similarly, De jure codes may grant private property rights and there may formally be laws establishing such rights, but the corresponding registration and enforcement mechanisms may be largely absent.<sup>51</sup>

In forestry there are several important levels of interpretation of what constitutes an institution. In the next section, the most important institutional framework for forest management planning will be discussed in the light of New Institutional Economics (NIE), namely the property rights concept, on the one hand the ToC as opposed to governance of the commons. The latter disagrees with the conclusions of the “Tragedy of the Commons” that only privatisation or state control can achieve to avoid degradation.<sup>52</sup> On the other hand the TAC which focuses on an entirely different debate around the effects of fragmentation and proliferation of private property rights and its effects on scientific research. Some have extended this debate to natural resources. However, the combination of these two important property rights theories will also be addressed. Following the discussion of property rights another concept within the context of institutional governance; namely, the decentralisation concept will also be discussed in the light of institutional governance theory.

### **3.2 Property rights “debate”**

The manner in which people use forestry resources depends on the property rights governing these resources. Property rights are an institutional form (these can also be called rules) which regulate the access to and use of resources by humans. Those rights should be enforced by the state as a ‘unit of coercion’.<sup>53</sup> It has been assumed that property rights, whether De facto or De jure, significantly affects the incentives individuals’ face, which ultimately determines the final outcome of resource management.<sup>54</sup> Property rights provide agents with the incentives to use land efficiently and to invest in land conservation and improvement and therefore this process is characterised as market-based innovations.<sup>55</sup> Unclear or insecure rights are thought

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<sup>51</sup> Feder & Feeny (1991); Van Kooten & Wang (2001).

<sup>52</sup> Fortmann (2008) quoted by Feder & Feeny (1991).

<sup>53</sup> Arlinghaus et al. (2007).

<sup>54</sup> Bhagirath & Engel (2006).

<sup>55</sup> Antinori (2000).

to inhibit exchange, erode incentives to invest in activities that increase long term productivity of resources, and affect the amount of output produced in the economy.<sup>56</sup> It is argued that one of the reasons for the massive degradation of natural resources as well as the ineffective implementation of the forest management planning outcome in developing countries may result from a lack of clearly defined and secure property rights.<sup>57</sup> Many conflicts over forests arise because of difficulties in clarifying the property regimes and many empirical studies link the absence of clear property rights to rapid loss of vegetation cover, overgrazing, and soil erosion.<sup>58</sup> In this respect, property rights issues<sup>59</sup> are important concerns within the forest management planning framework as a means of achieving sustainability, efficiency, and equity for natural resource use patterns. The debate<sup>60</sup> has been overshadowed by increasing conflicts between stakeholders in relation to forest management planning outcomes and now focuses on what type of institutional arrangement is the most appropriate in the given social context; aspects of these arrangements include property right structures as well as organisational structures.

In general, according to Feder & Feeny (1991),<sup>61</sup> “property as a social institution implies a system of relations between individuals [...] it involves rights, duties, powers, privileges, forbearance, etc., of certain kinds”. It deals with relationships amongst people, as well as between people and things.<sup>62</sup> In addition, social scientists stress that it is not merely a relationship between people and things, but a relationship of people with regard to things. The section of David Hume’s “A Treatise of Human Nature” quoted by Van Kooten & Wang

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<sup>56</sup> Luckert & Kundhlande (1998).

<sup>57</sup> Panayotou (1993); Bhagirath & Engel (2006).

<sup>58</sup> Luckert & Kundhlande (1998).

<sup>59</sup> Property rights in general and land rights in particular have to be considered in the context of the overall institutional structure of the society and economy.

<sup>60</sup> The debate is based on the question what the efficient or best property rights system is for sustainable forest management of natural resources (Feder & Feeny (1991); Luckert & Kundhlande (1998); Van Kooten & Wang (2001). How to reach an agreement between stakeholders involved? In fact, after the colonial period in Cameroon, as in many Central African countries, the “independent government” continued to use the same principle or law designed by the coloniser, which were essentially the nationalisation or strong centralisation of the resource management from 1960 until 1980. Afterwards, the World Bank and the FMI introduced the concept of forest concessions, as well as protected areas, forest reserves etc. as part of the Structural Adjustment Programme which was based on neo classical economics. In this sense the commons were privatised or nationalised again. The result was an increased forest degradation and deforestation, due to logging, as well as increased poverty of the local peoples, the so-called TAC. The 1992 Rio Declaration as well as the resulting forest principles and agenda 21 promoted a new definition of sustainability equally integrating three dimensions: social, economic and ecological aspects. Due to this there a new law was introduced in 1994, which took into account the interests of the local people in relation to forest concession management. However, there is still a lack of tools addressing this. At the same time, the concept of forest communities was introduced, also suffering from many problems (institutional problems as well as mismanagement) which again resulted in forest destruction or degradation. Some forest communities have been discontinued but poverty persists (tragedy of the commons). The question now is: what property rights system can guarantee the improvement of the living condition of local communities?

<sup>61</sup> Cf. also Van Kooten & Wang (2001).

<sup>62</sup> Whether these things are tangible or intangible ideas, etc.

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(2001)<sup>63</sup> titled “of property and riches” is often cited as the fountain of studies of property. In the broadest and simplest sense, spanning history and cultures around the world, property may be defined as the fruit of creative work. Property is also usually thought of in terms of a bundle of rights<sup>64</sup> encompassing varying rights and responsibilities depending on the type of property. There is also delineation between private, public, communal, and common ownership. Most often property includes the right to exclude others. This attribute is important, but there seems to be no universal agreement on defining property as being protected by the local sovereignty. Ownership does not necessarily equate with sovereignty. If ownership gave supreme authority it would be sovereignty, not ownership. Within the economics literature, numerous definitions of property rights can be found.<sup>65</sup>

However, common to most economic definitions of property rights is the existence of a valuable good or service within the context of social conditions.<sup>66</sup> These social conditions may include many different levels of rules. These rules may apply to individuals, households, villages, or even larger groups of people. Furthermore, when applied to natural resources, they find that such complex sets of social conditions frequently vary across landscapes and types of natural resources.<sup>67</sup> For economists, these numerous types of social conditions represent complex frameworks of incentives that influence the behaviour of property rights holders and thereby influence the values associated with natural resources.<sup>68</sup> For a more comprehensive discussion on economic definitions and behavioural concepts of property rights see Haley and Luckert.<sup>69</sup> In contrast to the property right engineering perspective, the Chicago School<sup>70</sup> has pointed out that there may not be a need for the engineering of property rights. In short, it is argued that market forces and transactions between rational households may cause property rights to evolve and fix potential problems.<sup>71</sup>

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<sup>63</sup> Van Kooten & Wang (2001).

<sup>64</sup> The bundle of rights is a common way to explain the complexities of property ownership (From Wikipedia, the free encyclopedia). It encompasses such things as the right to possess, alienate, exclude. In other words, the bundle of rights defines the relationship between people and their control over things (possession, exclusion, etc.). Social scientists also frequently conceive property as a bundle of rights.

<sup>65</sup> Luckert (2001); Van Kooten & Wang (2001).

<sup>66</sup> Furubotn & Pejovich (1972); Paavola (2007); Haddad (2003); Luckert (2001); Van Kooten & Wang (2001).

<sup>67</sup> Bromley (1989); Bruce & Fortmann (1988).

<sup>68</sup> Ostrom (1999a,b); Ostrom & Walker (2000).

<sup>69</sup> Luckert (2001).

<sup>70</sup> The term “Chicago School” arises from several eminent scholars, many of whom are Nobel Prize winners that have emerged from the University of Chicago.

<sup>71</sup> North (1990); Sethi & Somanathan (1996); Luckert (2001).

The state of the 22 million ha of forest in Cameroon is the greatest concern. The need for clarifying the property rights system has been one of the most prominent subjects discussed in forestry during the last two decades. Specifically, the need for greater community participation in natural resource management is increasingly recognised. This became apparent in 1994 when the new forestry law laid emphasis on this issue.<sup>72</sup> In fact, the conflicting nature of forest management<sup>73</sup> and the widespread feelings of distrust among local populations, state agencies, logging operators, and conservation organisations indicate that there is a great need to address the complex situation of property rights. In doing so the different interests at stake must be taken into consideration and the development of management regimes must be a learning process for all parties involved. Collaborative strategies and mechanisms are needed to accommodate these multiple interests. In this section, the emphasis was on the property rights regime for common-pool resources like forests. The following two concepts will analyse and discuss the ToC and the TAC.

### **3.2.1 Tragedy of the Commons (ToC)**

The term is originally derived from a parable published by William Forster Lloyd in his 1833 book on population.<sup>74</sup> It was then expanded and made popular by Hardin (1968).<sup>75</sup> Many authors described it as a problem of market failure. Hardin (1968) drew attention to two human factors that drive environmental change. The first factor is the increasing demand for natural resources and environmental services, stemming from human population growth and per capita resource consumption. The second factor is that people would not organise themselves. Instead each individual would maximise his or her own utility and thus extract resources from the environment and eject effluents into it. Social scientists refer to this as institutional arrangements.<sup>76</sup> While the article of Hardin (1968) confuses open access with common property resource management regimes, it serves as a basic introduction to the discussion of common property and property rights research in general. In fact, in Hardin's classic account of social dilemma situations, he develops his pessimistic view of the ToC. Given the incentive structure of social dilemmas, he predicts inefficient excess appropriation of common-pool resources. The ToC or prisoner dilemma game in which individual resource users overexploit resources which does not serve the common good and, therefore, also represents a conflict between individual and group rationality. This tendency to dissipate rents

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<sup>72</sup> Abega et al. (1999).

<sup>73</sup> Disagreements on the set of rights, regulations and duties of the actors.

<sup>74</sup> Hardin (1968); Aizpurua & Galilea (2000); Falk et al. (2002).

<sup>75</sup> In his essay on "The Tragedy of the Commons".

<sup>76</sup> Hardin (1968).



in open access resources has long been recognised, perhaps earliest by Aristotle in “Politics”.<sup>77</sup>

In the course of his essay, Hardin (1968) developed the theme, drawing in examples of latter day “commons”, such as the atmosphere, forests, oceans, rivers, fish stocks, national parks, advertising and even parking metres. A major theme running throughout the essay is the growth of human populations; with the Earth's resources being a general commons. These thoughts were influenced by neo-Malthusian concepts and the ToC model which legitimised the belief that local people (users of the commons) cause resource depletion and inevitably become trapped in tragic overuse.<sup>78</sup> The common problem arises in these situations from an overlapping distribution of rights where acquisition means absolute priority in ownership or other rights. Neoclassical scholars argued that, when each person has the same right to use the resource and no one has the right to exclude the others, the dominant strategy for each person is to overuse the resource, without regard to the common interest in assuring that the resource is put to its best use.<sup>79</sup> According to the ToC theory, rational individual behaviour leads to resource over-exploitation, if private rights are absent.<sup>80</sup> This view coincides with the commonly expressed views that the peasants are the destroyers of the environment, whereas the government is the custodian.<sup>81</sup> In this respect some scholars argue that local peoples are responsible for the destruction of the tropical forest. In fact, the ideas conceptualised by Hardin (1968) already existed earlier and influenced policy making in natural resource management. According to Demsetz (1967)<sup>82</sup> and the example of Hardin (1968) about “herdsmen” the common property rights induce the failure of the primary function of property rights which consist of guiding incentives to achieve a greater internalisation of externalities.

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<sup>77</sup> Ancient philosophy, as represented by Aristotle, as the intellectual basis for the tragedy (followed by Hobbes and his leviathan) also advocates this view in one of the first known expositions on ToC. Hardin (1968) highlighted that the least care is bestowed upon what is common to most people. Every one chiefly thinks of his own benefit and hardly at all of the common interest. Additionally, He said that conflicts arise from the fact that people gain the same benefits even if some invest more labour than others. Accordingly those that work hard and receive little will necessarily complain of those who labour little and receive or consume much. But indeed there is always a difficulty in men living together and sharing, especially in the case of common property.

<sup>78</sup> Ostron (1999a,b); Sekhar (2000).

<sup>79</sup> Aizpurua & Galilea (2000).

<sup>80</sup> Hardin's essay describes a traditional English village pasture open to all, where herdsmen can freely graze their cattle. Each herdsman, however, has the incentive to graze as many cattle as possible in order to obtain greater profits from their sale. The consequence is that the herdsmen become trapped in a race to increase their herd on what is a finite piece of pasture land, and herein lays the tragedy. The carrying capacity of the pasture is eventually exceeded and the negative effects of overgrazing become a detriment to all users. Hardin concludes that “therein is the tragedy”. Each man is locked into a system that compels him to increase his herd without limit in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all. (Hardin (1968).

<sup>81</sup> Sekhar (2000).

<sup>82</sup> Demsetz (1967).

Every cost and benefit associated with social interdependencies is a potential externality. Dasgupta & Heal (1979)<sup>83</sup> give examples of externalities which are of similar structural problems. These include over exploitation of common fishing grounds, extraction of oil and natural gas from a common underground reservoir, deforestation of common lands for fuel wood, depleting underground water sources and some pollutions problems of common air and water resources. This view of Hardin (1968) and Demsetz (1967)<sup>84</sup> was thought to challenge Adam Smith's famous observation that the expectation of profit from “improving one's stock of capital” rests on private property rights, and the belief that property rights encourage the property holders to develop the property, generate wealth, and efficiently allocate resources since the operation of markets is central to capitalism. From this evolved the modern conception of property as a right, which is enforced by positive law, in the expectation that this would produce more wealth and better standards of living.<sup>85</sup> To address this tragedy the concept of privatisation was introduced and developed from neoclassical economic theory as well as the strong centralisation or nationalisation of property.

### **3.2.2 Privatisation of the property**

Neo classical scholars see the solution of degraded commons in the privatisation<sup>86</sup> of the natural resources. They argued that the expectation of profit from “improving one's stock of capital” rests on private property rights, and the belief that property rights encourage the property holders to develop their property, generate wealth, and efficiently allocate resources based on the operation of the market is central to capitalism. From this, the modern conception of property evolved as a right which is enforced by positive law, in the expectation that this would produce more wealth and better standards of living.<sup>87</sup> They also assume that privatisation will lead to a more efficient and sustainable use as well as allocation through market forces as it provides resources owners with incentives to undertake required investments to improve resources conditions.<sup>88</sup> They consider private property to be an essential ingredient in economic development due to the incentives associated with different kinds of property relationships.<sup>89</sup> Block and Barnett II (2005)<sup>90</sup> argued that “our goal is to

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<sup>83</sup> Runge (1981).

<sup>84</sup> Hardin (1968); Demsetz (1967).

<sup>85</sup> Politics 1261b34; see also Ostrom (1990); Feeny et al. (1990); Falk et al. (2002).

<sup>86</sup> Conversion of each common into private property.

<sup>87</sup> Politics 1261b34; see also Ostrom (1990); Feeny et al. (1990); Falk et al. (2002).

<sup>88</sup> See for more Demsetz (1967); Hardin (1968); Edwards (2003); Clark (1998); Poteete/ & Ostrom (2003).

<sup>89</sup> See for example: Ostrom (2000).

<sup>90</sup> Block & Barnett II (2005).

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bring about a more free and ipso facto a more just, peaceful and prosperous society. In order to achieve these ends we rely on private property rights...” The liberal, pro-capitalistic ideology guided this action in the political arena.

As a consequence, privatisation was thought to be a “necessary” condition for “prosperity”. Thus, the commons were privatised all over Europe as well as over most countries of the tropical forest, so as to drastically change the economic life of the whole society<sup>91</sup>. However, private-property rights depend upon the existence and enforcement of a set of rules which are themselves a kind of commons that defines who has a right to undertake which activities, when and where the returns from these activities will be allocated. That is, rules and rulers are required to establish, monitor and enforce a property system. In this respect, neo-classicists frame property rights with basic criteria that must be met if property rights are to produce successful efficient resource allocations. In this sense, a well defined property rights system can be said complete if they are universal, comprehensive, exclusive, transferable, divisible and enforceable (six criteria).<sup>92</sup> According to Ferguson (1997), neo classical economists talk of market failure/inefficiency if any of these six criteria is violated. Privatarians argue two steps further. Firstly, they do not only argue that efficiency can be demonstrated in well-defined property rights arrangements, but also that well defined property rights mean efficiency. Secondly, they show that property rights can only be well defined if they are assigned to individuals. Thus, through some rules generate incentives that greatly increase the welfare of most participants in an economy.<sup>93</sup> Feder & Feeny (1991) assumed that the fourth pillar of economic theory, namely, resource endowments, technology, and preferences are sufficient and that institutions can be omitted.

According to neo-classical economists, common property regimes are therefore, compared with privatarians view, and presumed to be inefficient. The three sources of this inefficiency

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<sup>91</sup> Aizpurua & Galilea (2000).

<sup>92</sup> Universability is the complete assignment of property rights to a resource. Comprehensive ownership of all assets must be assigned to specified economic agents (individual, firm, other legal entity) with all entitlements to use or dispose of property known in advance. Comprehensiveness implies that the property is secured from involuntary seizure or encroachment by other economic agents, including the state; Exclusivity (Western-style exclusive) is the ability to exclude non-owners of the resource. Transferability is the ability to exchange resources with others; Enforceability is the capacity to enforce one’s right to a resource (most importantly by excluding non-owners); Divisibility is the physical capacity to render the resource in terms that make it possible to exchange in determinate ways (Feder & Feeny (1991); Ferguson (1997); Lucker & Kundhlande (1998); Van Kooten & Wang (2001)).

<sup>93</sup> Ostrom (2000).

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include rent dissipation, high transaction and enforcement costs.<sup>94</sup> Regarding the benefit of the private property right in comparison with the common property in their findings, Fox et al. (1996) showed that the “British Columbia halibut fishery provides a natural experiment of the effects of privatising the commons”. Using firm-level data from the fishery, their study indicated that:

- a) The short-run efficiency gains from privatisation may take several years to materialise and can be compromised by restrictions on transferability, duration, and divisibility of the property right;
- b) Substantial long-run gains in efficiency can be jeopardized by pre-existing regulations and the bundling of the property right to the capital stock; and;
- c) The gains from privatisation are not just in terms of cost efficiency but include important benefits in revenue and product form.

Feder et al. (1988) also conducted an econometric study that showed that an agricultural land in Thailand without a formal title was worth only half to two-thirds of a land with a formal title. Furthermore, increasing the security of private-property rights also led to an increase of value for the crops produced (10 to 25 percent increase than for those produced on lands without secured titles). More secured titles also provided better access to loans and led to greater investments in improving land productivity.<sup>95</sup> Barzel (1989)<sup>96</sup> assumed, comparing the common vs private property, that the more we move into the direction of private property, the less waste we produce from overuse and therefore the higher the benefits. Hobley (1996)<sup>97</sup> also showed that in New Zealand, the government took a radical step by privatising the Forestry Commission. In the same view of privatarian, Dietz et al. (2003)<sup>98</sup> showed that Hardin's oversimplification was folded and they claimed that only two private property and state-established institutional arrangements, and a centralized government could sustain commons on a long run, and he (Hardin) presumed that resources users were trapped in a commons dilemma, unable to create solutions. They showed that Hardin (1968) missed the point that many social groups, including the herders on the commons that provided the

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<sup>94</sup> The first is rent dissipation, because no one owns the products of a resource until they are captured, and everyone engages in an unproductive race to capture these products before others do (Ostrom (2000); Gordon (1954); Edwards (2003); Clark (1998); Dasgupta (2000)). The second is the high transaction and enforcement costs expected if communal owners were to try to devise rules to reduce the externalities of their mutual overuse (Demsetz (1967)). The third is low productivity, because no one has an incentive to work hard in order to increase their private returns (North (1990)).

<sup>95</sup> See also Feder & Feeny (1991).

<sup>96</sup> Barzel 1989 (cited by Schlueter (2008)).

<sup>97</sup> Hobley (1996).

<sup>98</sup> Dietz et al. (2003).

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metaphor for his analysis, have struggled successfully against threats of resource degradation by developing and maintaining self-governing institutions. Although these institutions haven't always succeeded, Hardin's preferred alternatives of private or state ownership.

Considering this framework and the Ferguson (1997)<sup>99</sup> definition of private property, one can assume that it is “something” over which an individual has an almost absolute or relative right; a partial or full right in controlling access, use, and compensation for damage. However, private property is, in many societies, limited by government regulations and the expectations of society. One may, for example, have clear private property rights to a Rembrandt but there would be severe public aversion to one setting it on fire<sup>100</sup>. Therefore, privatarian arguments that efficiency is the same thing as sustainability is to be questioned, as well as the statement that there is evidence in environmental economics literature showing that maximisation of value is not only a necessary but also a sufficient condition for achieving sustainability. Yet, the presumption of exclusive, transferable, alienable, and enforceable rights is frequently inaccurate and potentially misleading in yesterday's and today's world, especially in developing countries. Cameroon is a good example to address this issue. More than 30% of the total forest areas of Cameroon (ca. 8.8 million ha forest are or should be under concession) are privatised. In fact, since the 1980s after the Structural Adjustment Program (SAP) of the WB and IMF, these forests area under logging has continuously been degraded (deforestation rate of about 0.6% of 220 Million ha in Congo Basin, extraction volume exceed production of about 174%) and there are more and more conflicts on property rights in these areas.<sup>101</sup> This situation puts the effectiveness and efficiency of the institutional change performed during the SAP in question. Looking at this phenomenon of overuse due to the privatisation of the resource, specifically, due to timber extraction or harvesting by logging companies in large scale forestry concessions (see the list of Europeans forest companies with their sizes in Congo Basin countries in annex 1, Figure 7-1, p. xxiii), the extraction volume exceeds production by about 174% and deforestation rate by almost 0, 6% the last FAO report on the state of forest attested (see Annex 1, Table 7-2, p. xxiv). Indeed, many authors have already discussed and described this situation as a source of dispute amongst the civic societies, the governments and forestry companies, specifically since the boycott of tropical timber in Europe in 1980s<sup>102</sup>. In this respect, one can argue that in the light of property right

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<sup>99</sup> Ferguson (1997).

<sup>100</sup> Comments from Louise Fortmann, professor of natural resource sociology and Rudy Grah Chair in Forestry and Sustainable Development, Berkeley, California 94720 (05.12.2008).

<sup>101</sup> FAO (2005).

<sup>102</sup> Nasi et al. (2005); FM (2001); BFT (2004); Dogmo (2005).

theories this phenomenon of overuse refers to the TAC to private property use. The term TAC was originally coined by Michelman (1982) and popularised in 1998 by Heller (1998).<sup>103</sup> It was first presented as a parallel process to Hardin's (1968) conventional ToC.<sup>104</sup> Another example based on<sup>105</sup> the Michelman (1982) and Heller (1998) model to describe the TAC has been given by Rantanen (n.a)<sup>106</sup> who argued that life-saving drugs offer a simple, cost-effective solution to many health problems, provided they are available, affordable, and properly used. However, she showed that effective treatment for many diseases is lacking in poor countries because no effective drug exists or if it does, it is then too expensive. This failure is related to the medical knowledge excludability in two different ways: exclusion from the medical knowledge through patents and trade secrets and exclusion from the by-products of medical knowledge through their private nature. The excludability of medical knowledge is an important issue since it obviously imposes restrictions to accessibility of both medical knowledge itself and also to its by-products<sup>107</sup>. This application on the medical area can be transferred on the forest area in the sense that the exclusion of the others users in forest areas is a very difficult task and the social cost and value associated to it is considerably high, as shown by the field result studies in the area of community forests and fisheries.<sup>108</sup> In addition to the high transaction cost of exclusion, many authors ... difficulty for a government to monitor and control logging companies which are mostly large scale forest concessions with sometimes more than 1 Million ha forestland (see in annex 1, Figure 7-1, p. xxiii). These concessions are mostly far away from the central administration. Therefore, the control and monitoring of the forestry operation in the field are quasi-ineffective. In fact, forests companies are like many other business enterprises guided by the neo-classical economic theory. By such means, forest companies are mostly high view oriented on profit maximisation associated with important machinery such as harvesters and using selective logging and/or clear cutting.

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<sup>103</sup> Quoted by Schlueter (2008).

<sup>104</sup> Buchanan & Yoon (2000 cited Schlueter (2008)).

<sup>105</sup> Michelman (1982) and Heller (1998) (quoted by Schlueter (2008)) pointed to biomedical research as one of the key areas where competing patent rights actually prevent useful and affordable products from reaching the marketplace (see also Rantanen (n.a); Langinier (2006); Arora et al. (2005); Candela et al. (2006)). However, Patents often provide a classical example of the TAC because a patent owner has exclusive rights over the use of the patented technology. If the creation of a certain product involves the use of many techniques and components patented by different people or different companies, then it can be very difficult to negotiate effectively with all the patent holders at once, include high cost of exclusion, time consuming, and the result may be that one has to pay so many license fees that it becomes too expensive to create the desired product. In other words, a product that is in great demand may not be produced because costs associated with patents are too high (Heller 1998; Depoorter et al. (2003); Ceccagnoli et al. (2005)).

<sup>106</sup> Rantanen (n.a); Publication data not available (n.a.)

<sup>107</sup> Rantanen (n.a); Ceccagnoli et al. (2005).

<sup>108</sup> Ostrom (1998, 2007).

In this respect, both the TAC and the ToC provide useful hints for the analysis of externalities; and also promote the idea of active participation and conflict resolution mechanism which also integrate a valuable and strategic thinking approach in a context of tactical or medium term forest management planning for sustainable forest management in Congo Basin countries.

### **3.2.3 Strong centralisation of property**

The second concept developed to address the ToC is the strong centralisation of property right or nationalisation of resources. The role of the state in codifying and protecting land rights is regarded in many discussions as important for providing the necessary conditions for efficient resource use. In addition, one reason for the involvement of the public sector in property right or nationalisation of resources is to avoid market failures such as unfair competition among suppliers and externalities.<sup>109</sup> Other justifications for government intervention, for example in the biomedical area, are allocative and distributive inequality, private markets for pharmaceutical innovation based on intellectual property rights, under-investment in researches for diseases common in developing countries and barriers creation to affordable access to life-saving pharmaceuticals due to price monopoly.<sup>110</sup> Hardin (1968) also addressed potential management solutions to common problems additional to privatisation. He argues in favour for highly centralised structures in order to protect the ecological integrity of a resource, on one hand, and the polluter pay,<sup>111</sup> on other hand. Horning<sup>112</sup> shows that economic models of compliance suggest that individuals subjected to regulatory constraints, act rationally so as maximise the material gains obtained from complying (or not complying) relative costs of their course of action. Keeping with his original pasture analogy, Hardin (1968) effectively categorises these as the “enclosure” of commons, and notes a historical progression from the use of all resources as commons (unregulated access to all) to systems in which commons are “enclosed” and subject to differing methods of regulated use (access prohibited or controlled).

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<sup>109</sup> Lucker & Kundhlande (1998); Rantanen (n.a); Dietz et al. (2003).

<sup>110</sup> Rantanen (n.a).

<sup>111</sup> Rothbard (1982)

<sup>112</sup> Horning (2000).

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Hardin (1968) argued against the reliance on conscience as a means of policing commons, suggesting that this favours selfish individuals over those more far-sighted. In the context of avoiding over-exploitation of commons, Hardin (1968) concluded by restating Hegel's maxim that "freedom is the recognition of necessity." He suggested that "freedom", if narrowly interpreted as the freedom to do as one pleases, completes the tragedy of the commons. By recognising resources as commons in the first place, and by recognising that, as such, they require management, Hardin (1968) believed that we can preserve and nurture other and more precious freedoms. With government intervention, the public policy maker takes externalities into account in setting policy to maximise social welfare.<sup>113</sup> Another reason which led many national governments to nationalise forest resources (during the era following world war two (2) in an effort to avert what many feared would be a massive level of deforestation throughout the world) is based on the theoretical conclusion that local users would be helpless to overcome the incentives leading to the overuse of natural resources.<sup>114</sup> Nepal first nationalised all non-registered forest and waste lands in 1957 and expanded the definition of forest land in 1961.<sup>115</sup> Similar developments occurred in India and Indonesia at about the same time. In Cameroon also, the nationalisation of the forestland occurred directly after Independence in 1960 as can be seen in the forest law of 1981 and partly in the law of 1994, even though this centralisation was first of all introduced during the colonial time.<sup>116</sup>

Unfortunately, these efforts had many unexpected consequences. Forest users in many locations had organised themselves and had vigorous programs to protect, and in some cases, enhance local forests, a point overlooked by policy makers.<sup>117</sup> Once these forests were nationalised, they were perceived by many local users as government property rather than as local common property with a long-term value to local users. Since they no longer perceived themselves as the owner of these resources, a rush to harvest from them before others did ensued and deforestation processes accelerated rather than slowed down. The combination of loss of ownership with substantial increases in population, greater commercialisation of forest products, and technological changes in harvesting efficiency, increasingly threatened forests in all parts of the world.<sup>118</sup> The conventional theory of common-pool resources, which presumed that external authorities were needed to impose new rules on those appropriators

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<sup>113</sup> Ostrom (1990).

<sup>114</sup> Ostrom (1990).

<sup>115</sup> Ostrom (1999a).

<sup>116</sup> Ostrom (1999a).

<sup>117</sup> Fox 1993 & Fairhead & Leach (1996) & Fortmann & Bruce 1988 cited by Ostrom (1999a).

<sup>118</sup> Ostrom (1999a).



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trapped into producing excessive externalities on themselves and others, has now been shown to be a special theory of a more general theoretical structure.<sup>119</sup> Hardin's work has been highly influential but has long been aptly criticized as oversimplified.<sup>120</sup> Cameroon has about 21, 3 Million ha forest land, yet the government lacks the necessary capacity or resources to monitor or control these forests, as well as to enforce the established forest law. In fact, how can an area of 200.000 ha and more is monitored and controlled by one forester only, having just a motorcycle at his disposal? The fact that informational requirements are hardly fulfilled constitutes one major disadvantage of government control and monitoring system; therefore, the policy tools of government intervention may not be appropriate in all circumstances.

In fact, in many instances, it is apparent that the arrangements (individual or public ownership) that emerged to replace common property regimes have been ineffective in resource use and long-term protection or in promoting sustainable resource management.<sup>121</sup> In other words, when resources that were previously controlled by local participants are nationalised, state control has usually proven to be less effective and efficient, if not disastrous, than the control by those directly affected.<sup>122</sup> The harmful effects of nationalising forests earlier governed by local user-groups have well been documented for some countries like Cameroon, Nepal, India and Thailand.<sup>123</sup> In many instances, the transfer of property rights from traditional user groups to others eliminates the incentives for monitoring and restrains use (the Cameroon monitory forest concession has to monitor about 200.000 ha and 1 million ha in other Congo basin countries), converts owner-protectors into poachers and exacerbates the resource depletion it was intends to prevent. Similar results have occurred with regards to inshore forestry and fisheries taken over by state or national agencies from local inshore fishermen and local communities.<sup>124</sup> Ostrom (1999a) has also found out that large-scale government irrigation systems do not tend to perform at the same level as small-scale, farmer-managed systems.<sup>125</sup> The Community forestry in Nepal reinforces this affirmation and even moves a step further asserting that the state's role is that of regulatory authority only and that total management control should rest with the users of the resource

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<sup>119</sup> Ostrom 1999a,b.

<sup>120</sup> Dietz et al. (2003); Ostrom (2000).

<sup>121</sup> The failure of the Structural Adjustment Program (SAP) from the World Bank and International Monetary Fund has also to be considered (Ostrom (1998); Dembner et al. (1995); FM (2001)).

<sup>122</sup> Panayotou (1999); Ostrom (1999a).

<sup>123</sup> Because of this failure as already mentioned, the Cameroonian government introduced the community forest in the legislation (Fomete (2001); FM (2001); Anderson & Ostrom (2006); Ango et al. (2007); Ostrom (1999a); Campbell (1996); Gadgil & Iyer (1989); Ostrom (1999).

<sup>124</sup> Cordell & McKean (1992), Ostrom (1998).

<sup>125</sup> See also Mehra (1981) & Levine (1980) & Bromley (1982) & Hilton (1992) cited by Ostrom (1999a).

(however, property rights are retained by the state). Under these rulings there is a clear understanding that the state can no longer take sole responsibility for the management of forests, since, organisationally, it has neither the capacity nor the will to ensure the integrity of the resource into the future, specifically due to corruption, for the case of Cameroon.<sup>126</sup> This context sometimes referred to as TAC is the opposite situation to the ToC.<sup>127</sup> However, privatisation is not successful in many cases because of transaction costs posed by culture and history. As a measure to reduce deforestation, privatisation may actually have the opposite effect, depending on intensive and extensive production effects of increasing labour productivity that can reduce or augment deforestation.<sup>128</sup> Culture and history can preclude effectiveness of privatisation programs in boosting economic growth and reducing conflicts, and can have adverse welfare consequences.<sup>129</sup>

### **3.2.4 Common property resources**

At the other end of the spectrum, the common property literature points that the ToC is not the case with several rural communities, where traditional institutions regulate their resource use. Here, it expects local actors to always be able and willing to effectively and personally govern their natural resources.<sup>130</sup> Therefore, even today, Hardin's essay remains a source of controversy. Now, nearly 40 years after the publication of the ToC, the negative experiences of governments with expropriation of common property resources (strong centralisation) on one hand, and the poor forest logging practices from privatisation on the other hand, have led to a re-examination of the potential of collective management or self-organisation; therefore leading to a growing database of information on practical experiments with the restoration or strengthening of common property resource management systems. From a practical viewpoint, the Cameroon government introduced a new law in 1994 to address this issue and until today there are almost 80 forest communities of about 5000 ha each one already attributed to Cameroon.<sup>131</sup> Theoretically, Hardin (1968)'s view has been challenged by the insights of numerous field studies reported in the seminal book by Ostrom (1990).<sup>132</sup> In this book the metaphor of a tragedy is replaced by the emphasis that people are able to govern the

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<sup>126</sup> Hobley (1996).

<sup>127</sup> Hardin's powerful metaphor for ecological disaster centres on the free-riding problem which inhibits collective action over resources with free and open access tenure regimes.

<sup>128</sup> Antinori (2000).

<sup>129</sup> Antinori (2000).

<sup>130</sup> Anderson & Ostrom (2006).

<sup>131</sup> An example of this change is the forest policy and law reform performed in the last decades in almost all the Congo Basin countries with the introduction of forest community (Nguiffo et al. (2002a,b); Nasi et al. (2006); Ostrom (1998, 2007); Castadot et al. (2007); Ango et al. (2007)).

<sup>132</sup> Ostrom (1990).

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commons. Ostrom (1990) showed that in many situations people are able to cooperate and improve their joint outcomes. Moreover, the reported field studies point to the importance of behavioural factors, institutions, and motivations. However, although it has been shown that these factors collectively influence behaviours, it is of course nearly impossible to isolate the impact of individual factors.<sup>133</sup> Hence the renewed interest both in the lessons to be learnt from successful common property regimes of the past and present<sup>134</sup> and in the possibility of reviving community ownership or management as a practical remedy where appropriate. Collective management systems in Nepal and India are also well documented. In Cameroon, this system is on development and too early to evaluate.<sup>135</sup> Bromley (1989)<sup>136</sup> also argues on common property by showing that the emergence of many common property regimes in developing countries is based on the fact that the returns coming from the resource are not high enough to finance the definition of exclusive private property rights. Thus, the current rightful in many tropical countries has been the move to common property which address the high transaction cost involved in private forestry or strong centralised or nationalised forestry.

Yet, researches in the last 20 years have shown the role of common property in production, risk diversification, poverty alleviation, natural resource management system and cultural heritage.<sup>137</sup> The debate over common property among development professionals is increasingly active. This includes a growing concern for international environmental disputes and transboundary externalities as well as the appropriate role of self-governance in resource<sup>138</sup> management.<sup>139</sup> A growing number of theorists and practitioners question the application of the ‘tragedy of the common’ paradigm to resource overuse and universality of ‘free rider’ behaviour on common property, but a broader and more elaborate theory of the commons is emerging only now.<sup>140</sup> Forest resources share attributes with many other resource systems and this makes their governance and a sustainable, efficient, and equitable management difficult. While some “forests” are small enough and relatively easy to fence or protect from intrusion, excluding beneficiaries from access and use of most forests is costly.

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<sup>133</sup> Falk et al. (2002).

<sup>134</sup> See Dembner et al. (1995); Berkes (1989, 1996); Agrawal (2000, 2002).

<sup>135</sup> See for example, Campbell (1996); Hobley (1996); Kanowski (1997); Berkes et al. (2001); Runge, (1981); Ostrom (1990, 1998, 2007); Bromley et al. (1992); Fomete (2001).

<sup>136</sup> Schlueter (2008).

<sup>137</sup> Antinori (2000); Ostrom (2007).

<sup>138</sup> A vast amount of natural resources are held as common property - where a specific group of people own and manage resources in common.

<sup>139</sup> Ostrom (1998, 2007).

<sup>140</sup> Anderson & Runge (1994); Ostrom (2000).

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The difficulty of exclusion makes it possible that individuals, who benefit from the use of forest, do not contribute to its long-term sustainability.<sup>141</sup>

Furthermore, as researchers around the world recognized that policies intended to reduce deforestation had the opposite effect (effect of privatisation and nationalisation); considerable interest was rekindled in promoting various forms of community forestry institutions.<sup>142</sup> Substantial evidence has been mounting from a wide variety of sources that local forest users were capable of managing forest resources in many diverse locations<sup>143</sup> as well as other common-pool resources.<sup>144</sup> Evidence from field research challenges the generalisability of the conventional theory. A rich case study literature, as previously described in the 3.2.1.3, focusing on common property based resource management comprises many important studies that seek to specify the conditions under which, groups users will self-organize and sustainable govern resources upon which they depend.<sup>145</sup> A vast amount of natural resources are held as common property - where a specific group of people own and manage resources in common. The main argument is that controls over common property assets provide both economic development and natural resource management benefits.<sup>146</sup> Since the mid-1980s, discussions over what kind of institutional arrangements and accounts for sustainable resource use have undergone a remarkable change. The shift has occurred in part as a response to the explosion of work on common property arrangements and common pool resources.<sup>147</sup> Forest resources as CPRs,<sup>148</sup> are characterised by the difficulty of exclusion and generate finite quantities of resource units so that one person's use subtracts from the quantity of the resource available to others.<sup>149</sup>

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<sup>141</sup> Ostrom (1998, 2007).

<sup>142</sup> Ostrom (1999a,b).

<sup>143</sup> Ostrom (1999a,b).

<sup>144</sup> Gardner et al. (1992,1994); Ostrom (1999a), see for more section 3.2.1.3.

<sup>145</sup> Ostrom (1990); Hess & Ostrom (2001); Hess & Ostrom (2007); McCay & Bonnie & Acheson. (1987a,b); Agrawal (2001).

<sup>146</sup> Antinori (2000).

<sup>147</sup> Berkes (1989); Acheson et al. (1987a,b); Ostrom (1990); Agrawal (2001); Wilson (2005).

<sup>148</sup> CPRs is described by Gardner et al. (1992) as natural or man-made resources whose yield is subtractable and whose exclusion is non trivial (but not necessary impossible). According to Ostrom (1994), a common-pool resource, such as a lake or ocean, an irrigation system, a fishing ground, a forest, the internet, or the atmosphere, is a natural or man-made resource from which it is difficult to exclude or limit users once the resource is provided, and one persons consumption of resource units removes those units from those available to others. Thus, the trees or fish harvested by one user are not available for others. The difficulty of excluding beneficiaries is a characteristic that is shared with public goods, while the subtractability of the resource units is shared with private goods.

<sup>149</sup> Aizpurua & Galilea (2000).

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However, there are differences in nature with problems relating to public goods. In these natural or human made resources, the development of institutions to exclude potential appropriators (or to limit appropriation rights of existing users) is costly. This is also the case with public goods; where people are invited to use these resources without investing in their conservation or management. However, the yield of the resources is subtractable (or rival), like private goods, and can thus be depleted.<sup>150</sup> Exclusion may be unfeasible in the sense that many users cannot be denied access. But, the use by any one user precludes the use of some fixed quantity of a good by other users. It must be noted that the term “commons” is a public good that has to be created and shared by the commoners so that they have the information they need to make and enforce operational rules and manage conflicts. On many commons people do different kinds of activities and the knowledge that results is also different.

CPR is used to refer to the physical qualities of the resource systems and not to the social institutions that human beings have attached to them.<sup>151</sup> Janssen & Ostrom (2001) argued that CPRs share two attributes<sup>152</sup> important for economic activities. This includes the fact that it is costly to exclude individuals from using the resource either through physical barriers or legal instruments; and the benefits consumed by one individual subtracted from the benefits available to others.<sup>153</sup> Recognizing this class of goods that share two important and theoretically relevant attributes, enables scholars to identify the core problems facing individuals or groups that wish to utilise such resources for an extended period of time. Thus, CPRs are subject to problems of congestion, overuse, and potential destruction, unless harvesting or use limits are devised, implemented, and enforced. In addition to sharing these two attributes, particular common-pool resources differ from many other attributes that affect their economic usefulness including their size, shape, and productivity and the value, timing, and regularity of the resource units produced.

The focus in this section is primarily on forest resources which are frequently analysed as exemplars of CPRs,<sup>154</sup> but the theoretical arguments are relevant to man-made CPRs. Because of the difficulty of excluding beneficiaries, the free-rider problem is a potential threat to efforts made to reduce appropriation and improve the long-term outcomes achieved from the

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<sup>150</sup> Gardner et al. (1994).

<sup>151</sup> Aizpurua & Galilea (2000); Berkes (2005).

<sup>152</sup> First, CPRs share the difficulty and cost of developing physical or institutional means of excluding beneficiaries with public goods. Second, private goods as well as the products or resource units from CPRs share the attribute that one person's consumption reduces the quantity available to others.

<sup>153</sup> V./ E. Ostrom (1977); Gardner et al. (1994).

<sup>154</sup> Ostrom (1999a).

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use of the common-pool resources.<sup>155</sup> The ecosystem services generated by forest resources watershed protection, carbon sequestration, biodiversity enhancement, etc. may be considered as externalities or as public goods. Ecosystem services are, however, closely tied to the sustainability of the forest stock, and are thus threatened by the same set of incentives that tempt users of an unregulated forest resource into a race to use up the timber and destroy the forest itself. Ostrom (1994a)<sup>156</sup> consequently showed that one important problem facing the joint users of a common-pool resource is known as the appropriation problem, giving the potential incentives in all jointly used CPRs for individuals to appropriate more resource units when acting independently than they would do if they could find some way of coordinating their appropriation activities. Joint users of a common-pool resource often face many other problems, including assignment problems, technological externality problems, provision problems, and maintenance problems.<sup>157</sup>

Another definition of Common property regimes has been formulated by FAO (1995) as a way of privatizing the rights to something without dividing it into pieces. Common property also offers a way of parcelling the flow of skim able or harvestable “income” (the interest) from an interactive resource system without parcelling the principal itself. Such a regime would obviously be desirable when the resource system is most productively managed as an intact whole rather than in uncoordinated bits and pieces. Historically, common property regimes have evolved in places where the demand on a resource is too great for open access to be tolerated. So property rights in resources have to be created, but some other factor makes it impossible or undesirable to parcel the resource itself.<sup>158</sup> Bromley & Swallow (1992) showed that common property is considered to be a set of ordered institutional arrangements that define the conditions of access to, and control over, a stream of benefits arising from collectively-used natural resources and Wilson<sup>159</sup> assumes that the terms “commons” and “communal property” has been used to describe goods owned collectively by some defined community, as well as the absence of property rights. Common property as named by Ostrom<sup>160</sup> is a self-governed forest resource in which actors, who are major appropriators from the forest, are involved over time in making and adapting rules within collective-choice arenas, regarding the inclusion or exclusion of participants, appropriation strategies,

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<sup>155</sup> Ostrom (1994).

<sup>156</sup> See also Ostrom (1994).

<sup>157</sup> Gardner et al. (1994); Ostrom & Walker (2000).

<sup>158</sup> FAO (1995)

<sup>159</sup> Wilson (2004).

<sup>160</sup> Ostrom (1999a).

obligations of participants, monitoring and sanctioning, and conflict resolution. Aizpurua & Galilea (2000) assumed that Common property refers to social institutions. It is used to refer to a property rights arrangement in which a group of resource users share rights and duties towards a resource. FAO (1995) described also some factors favouring resource integrity which include indivisibility; uncertainty in location of productive zones. In fragile environments, nature may impose great uncertainty on the productivity of any particular section of a resource system; productive efficiency through the internalisation of externalities; administrative efficiency. Even if resources are readily divisible into parcels, the administrative support to enforce property rights into individual parcels may not be available.

However, the term “common property” had erroneously been used to refer to non-property, or to open access resources. This seeming paradox partially rests on confusion between open access resources (*res nullius*) and common property (*res communus*).<sup>161</sup> Ostrom (2000) argued in this sense that the debate on relative merits of private and common property has been clouded by a troika of confusion that hinders scholarly communication. Different meanings are assigned to terms without clarifying how different aspects relate to one another. In this same view, Ferguson<sup>162</sup> also argues that concluding that private property is the superior solution to sustainability problems is based on confusion between common property and open-access arrangements for resource use.<sup>163</sup> In addition to the first confusion, Ostrom (2000) identified three other sources of confusion relating to the differences between:

- a) Common property and open-access regimes;
- b) common-pool resources and common property regimes;
- c) A resource system and the flow of resource units.

All three sources of confusion reduce clarity in assigning meaning to terms and retard theoretical and empirical progress.<sup>164</sup> Therefore the term “common property” has very often been used to refer to non-property, or to open access resources for which rights or duties have not been defined. This wrong tendency is especially observed among neo-classical

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<sup>161</sup> Ostrom (2000); Antinori (2000); De Young (1999).

<sup>162</sup> Ferguson (1997).

<sup>163</sup> See also Runge (1981).

<sup>164</sup> According to Ferguson (1997), some scholars define common property, such as open access, as “unrestricted access to a resource, where there is no control over access to it.” In other words, a common property is understood as an “open access” resource. According to De Young (1999) a tragedy is more likely to emerge in a situation where restraining access to the resource is costly, impractical or impossible. In this sense privatarians equate common property with open access property and they consider only two types of property rights and this division is a situation in which property is owned, on one hand, and not owned, on the other hand (Ferguson (1997)).

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economists.<sup>165</sup> The same argument, according to Ostrom (1998) can be applied to all social dilemmas “whenever individuals in interdependent situations face choices in which the maximization of short-term interest yields outcomes leaving all participants worse than feasible alternatives... are called by many names including: the public good or collective good problem (with the Public goods have the attribute of being no consumptive), shirking, the free-rider problem, moral hazard, the credible commitment dilemma, generalized social exchange, the tragedy of the commons, and exchanges of threats and violent confrontations. In fact, users of a public good care little about who else uses it. The Prisoner's Dilemma has become the best-known social dilemma in contemporary scholarship...”.<sup>166</sup>

Ferguson (1997)<sup>167</sup> assumed that it is in response to the severe constraints of the common, as a game theoretical construction, that many authors have recently shown that there are many and various ways of exercising human control over nature by way shared property relations. These clarifications show that Hardin (1968)'s common is not really a common at all, but rather something over which there is no human control at all. He argued that it is important to stress that property is not common unless there are some rights common to a specific group. If there are no such rights, then there is no useful meaning to the word “common”, since it merely means “ours” or “no one's”, and thereby includes everybody and nobody. On the other hand, common-property regimes are presumed to be inefficient for three reasons: The first reason is rent dissipation because no one owns the products of a resource until they are captured, and everyone engages in an unproductive race to capture these products before others do. The source of this inefficiency is over appropriation when there is no cooperation. The second is low productivity, because no one has an incentive to work hard in order to increase their private returns.<sup>168</sup> The source of this inefficiency is under provision when there is an insufficient level of cooperation. The third is the high transaction and enforcement costs

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<sup>165</sup> Hardin (1968); Demsetz (1967); Ferguson (1997): “examples of common property, or free-access, resources are legion”; and even in the Palgrave Dictionary, Cheung defines Common Property Rights (not CPR) as when ‘no one has a right to exclude others from using it, and all are free to compete for its use’. Ferguson (1997) defines it as “unrestricted access to a resource, where there is no control over access to it.’ For privatarians “common” means “unowned” or more accurately ‘uncontrolled by any person or institution’. In other word, a common property is understood as an “open access” resource. Eggertsson (1990) seems to identify both concepts: “when ownership is common, no one holds exclusive rights. Common ownership or open access can be due to prohibitive transaction costs of establishing and enforcing exclusive rights over a resource relative to its value or to a refusal by the state to legitimize and enforce contracts in a particular area”; However, he later distinguishes these concepts from “communal ownership”: ‘whereby a community controls access to a resource by excluding outsiders and regulating its use by insiders’. This is changing in last years; even Hardin has rectified in a recent work which distinguishes between the unmanaged (unowned) commons subject to tragedy and the managed (owned) commons where property rights may be able to prevent misuse of the resource.

<sup>166</sup> De Young (1999).

<sup>167</sup> Ferguson (1997).

<sup>168</sup> North (1990); Ostrom (1998).



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expected if communal owners were to try to devise rules to reduce the externalities of their mutual overuse.<sup>169</sup> This inefficiency stems from the presumed high cost of reaching cooperation, if it can be achieved, as contrasted to a costless form of reaching optimal provision and appropriation levels.<sup>170</sup>

The spectrum the common property literature points to is the potential of sustainable group management of forests, where there are adequate individual incentives, secured long-term tenure arrangements<sup>171</sup> and group-imposed restrictions.<sup>172</sup> Gardner et al. (1992) assumed that self-organized CPR institutions have been devised without reference to central government and sustained over long periods of time without enforcement by external agents. There is also a large and expanding empirical literature. They showed in their finding that earlier experimental studies of social dilemmas have, however, shown that communication alone leads to more efficient outcomes. They confirmed these results in complex CPR environments. The mainly anecdotal evidence underpinning these assertions according to them is now being tested through a large longitudinal research programme coordinated across the world.<sup>173</sup> This programme assesses the impact of ecological, social, economic and institutional changes in the forestry sector. It is expected that it will provide many of the answers to questions currently being posed by donors, academics, and implementing agencies. Ostrom (1998) detailed many cases indicating that there are situations in which co-operation between a group of resource users does lead to careful and sustained management. The work of Netting<sup>174</sup> in Switzerland and McKean (1992a)<sup>175</sup> in Japan provides further evidence to support the effectiveness of collective management under certain conditions. Collective management systems in Nepal and India are also well documented.<sup>176</sup> By definition, all CPRs share the difficulty of devising methods to achieve exclusion and the sub tractability of resource units. The variability of CPRs is, however, immense with regard to other attributes that affect the incentives of resource users and the likelihood of achieving optimal outcomes. Further, whether it is difficult or costly to develop physical or institutional means of excluding non beneficiaries depends both on the availability and cost of technical and institutional

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<sup>169</sup> Demsetz 1967.

<sup>170</sup> V.- E. Ostrom (1977); Gardner et al. (1994); Ostrom (1998).

<sup>171</sup> Fortmann & Bruce (1988).

<sup>172</sup> Runge (1981); Hobbley (1996); Ostrom (1990, 1994); Hobbley (1996).

<sup>173</sup> See Ostrom (2005); Hobbley 1996.

<sup>174</sup> Dembner et al. (1995).

<sup>175</sup> Dembner et al. (1995).

<sup>176</sup> See for example: Hobbley (1996).

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solutions to the problem of exclusion and the relationship of the cost of these solutions to the expected benefits of achieving exclusion from a particular resource<sup>177</sup>.

That there is often confusion between the terms “efficiency” and “optimality” is also highlighted by Ferguson (1997). While efficiency is concerned only with the conservation of the inputs and the maximisation of the outputs, optimality is an ethical concept and is concerned with ethically acceptable distribution of resources. He thus assumed that the ethical content of sustainability<sup>178</sup> was primarily thought to be located in the concern for resource allocation (especially to future generations). He proved that efficiency might result or not, even when the five basic criteria of property rights are met or not. While neo-classicists recognize that ecological reality makes it difficult to assign, exclude, transfer, divide or even enforce property rights to resources, privatarians do not seem to recognize that solutions to sustainability would also lead to the indispensable development of a range of non-individual and non property-based responses.

Scholars of common represented by author like Jean Marie Baland and Jean-Philippe Platteau with their significant publications by the FAO<sup>179</sup> on “halting degradation of natural resources” have focused their views on communities based view of property right contrary to the resources based described in the previous section on tragedy of the common. They focused primarily on institutions around CPRs which are understandable in light of their objective: to show that common property arrangements can result in efficient use, equitable allocation, and sustainable conservation. But the focus on institution comes at cost. Since there is no single widely accepted theory of sustainability of common property right institution. They concluded that once “we have established that common-property institutions are not by definition inefficient, we can begin to explore factors that are conducive to the use of communal proprietorship and ownership. There is also a highly nuanced and thoughtful set of reasons about successful management of commons.” The following section will address the design principles for governance of commons on one hand and the collective action problem on other hand.

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<sup>177</sup> Ostrom (1998).

<sup>178</sup> Sustainability is also be set by the same kinds of problems like optimality.

<sup>179</sup> Baland & Platteau (1996).

### **3.2.5 Design principles for governance of Common Pool resources**

Scholars of common property have shown that markets or private property arrangements and strong centralised state ownership or management do not exhaust the range of plausible institutional mechanisms to govern natural resource use.<sup>180</sup> The theoretical issue in collective action has been described by Anderson & Runge (1994). Runge (1981) stated earlier that “to cooperate by voluntarily contributing to public good or not is a central problem in social and economic theory”. In the case of forest management, the problem is one in which the sum of individual decisions affects the welfare of the group as a whole.<sup>181</sup> Poteete & Ostrom (2003) showed that collective action is not problematic under all circumstances. Problems arise from inadequate information, conflicting interests, or the nature of the good itself. Game theorists have developed a variety of basic games to capture common aspects of social interaction. There exist several types of collective action problems that are of relevance to natural resource management. When people lack information, coordination becomes difficult despite common goals (assurance games). Use and maintenance activities need to be coordinated to avoid crowding or achieve economies of scale. If multiple solutions exist to a collective action problem but have different distributional consequences, competition over distributional issues can result in failures to cooperate (chicken games). The beneficiaries of alternative management strategies are often vastly different, for example, making agreement and cooperation difficult to achieve (battle of the sex’s games). Rivalry in consumption and difficulty of exclusion make provision and sustenance of common-pool goods particularly challenging (social dilemma games more specifically, common-pool resource games). Obstacles to exclusion encourage individuals to free-ride on the efforts of others. Difficulty of exclusion and rivalry of extraction characterise many natural resource systems, including forests, watersheds, and fisheries. These conditions can result in under-provision of management and degradation of common resources. Although collective action problems differ in severity, many case studies<sup>182</sup> and evidence from laboratory experiments<sup>183</sup> demonstrate that many varieties of collective action problems can be overcome. The on-going challenge is to better understand sources of variation in the success of collective action. A large number of factors have been identified, such as facilitating collective action, including characteristics of the collective problem, characteristics of the group, institutional arrangements, technology, and the actions of national governments and other external actors.

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<sup>180</sup> Agrawal (2002).

<sup>181</sup> See Anderson and Runge for theoretical components of the Collective action theories.

<sup>182</sup> Luckert (2001); Bromley et al. (1992); McCay et al. (1987a, b); Ostrom (1990).

<sup>183</sup> Gardner et al. (1994); Ostrom (2000).

Despite significant progress, many questions about prospects for collective action are yet to be solved. The lists of important variables differ.<sup>184</sup> In other words, debates continue about whether and how particular factors, especially group size and heterogeneity, affect prospects for successful collective action<sup>185</sup>.

According to Janssen & Ostrom (2001) many examples of long-existing, self-governed systems exist, for limiting resource use and increase the probability of sustainable resource systems.<sup>186</sup> One of these examples is that of the Lofoten cod fishery in Northern Norway which has been successfully self-governed and managed for more than 100 years. The rules regulating the use of this fishery and making it viable for the future have been devised by the boat owners themselves, with little external assistance or coercion. The design principles that characterise robust, self-governed institutions have been identified and confirmed by various surveys on successful and unsuccessful efforts at self-governance.<sup>187</sup> Existing theories of collective action do not yet provide an adequate explanation on how appropriators (harvesters) from CPRs can solve at least three nested social dilemmas:<sup>188</sup>

- a) The first dilemma is that of multiple appropriators relying on a single common-pool resource. This is the “tragedy of the commons” dilemma. Most resource policy textbooks presume that appropriators would be led to acting individually and so they could over harvest from CPRs;
- b) The second dilemma is that of spending time and effort to create a new set of rules that would be of joint benefit for all those relying on a resource, whether or not they took part in the regulation process. Since rules are themselves public goods, this is a public good dilemma and the standard theoretical prediction is that rules will not emerge as the result of an endogenous process. Rather those involved must have rules imposed upon them from the outside;
- c) The third dilemma is that of monitoring a set of rules and imposing sanctions on those who break the rules. Monitoring and sanctioning are costly activities for rule compliance – beneficial to all appropriators whether or not they contribute to the activities. This is also a public good dilemma. In most theories, rule enforcement is treated as an exogenous variable rather than something that the participants themselves undertake.

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<sup>184</sup> Agrawal (2001).

<sup>185</sup> Ostrom (2005); Luckert (2001); Van Kooten & Wang (2001); Agrawal & Ostrom (2001).

<sup>186</sup> See Bromley et al. (1992).

<sup>187</sup> See Ostrom (1990); Bromley et al. (1992); Janssen & Ostrom (2001).

<sup>188</sup> Janssen & Ostrom (2001); Anderson & Runge (1994).

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Janssen and Ostrom (2001)<sup>189</sup> showed that in settings where a central authority has not already claimed and enforced ownership of CPRs, an important theoretical question is how do resources appropriators from the CPRs develop their own rules to limit the quantity of resource units harvested? Since Hardin (1968)<sup>190</sup> used the strong metaphor of ToC, many scholars have accepted the view that local appropriators (fishers, irrigators, pastoralists or others appropriating resource units from CPRs) are trapped in an inevitable and tragic destruction of the resource upon which they were dependent. Extensive studies of local common-property systems, however, demonstrate that the “tragedy” is not inevitable.<sup>191</sup> Successful self-organisation is also not inevitable.

In this respect, the design principles of governance on community level are essentially based on the self-organising approach advocated by scholars like Ostrom (1998),<sup>192</sup> the National Academy of Science (NAS) (2002) and Horning (2000). This self-organising approach aims at creating, adapting and sustaining institutions for the management of the commons: This is an “essential element or condition for these institutions to successfully sustain the CPRs and urge appropriators to comply with the rules in use”.<sup>193</sup> These principles do not provide a blueprint for imposing rules on resource management regimes, but for facilitating better performance of common institutions over time. These principles have been described by Ostrom (1998) and adapted by Horning (2000) as eight principles for designing robust CPR management institutions. In this light, scholars and economists emphasise that the enforcement of such rules is determinant for compliance without assigning too much importance to the calculation of net benefits. The Table 3-1 at the end of this section displays these principles. According to Horning (2000), the first principle which refers to clearly defined restrictions on CPR and on membership, is listed as two separate conditions in Wade Wade (1988).<sup>194</sup> He showed a match between level of restrictions and local conditions, and between appropriation and provision of rules. These are facilitating conditions and general features of long-lasting, successful management of commons, rather than characteristics of the constituent analytical units or factors that depend on the presence of other variables for efficacy. He argued that the seventh principle suggests users are more likely to sustainably manage their commons when their rights to devise institutions are not challenged by external

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<sup>189</sup> Janssen & Ostrom (2001).

<sup>190</sup> Hardin (1968).

<sup>191</sup> Ostrom (1990); Bromley et al. (1992); Burger & Mayer (2003).

<sup>192</sup> See also Ostrom (2000, 2007).

<sup>193</sup> Ostrom (1990, 90 p.); Horning (2000).

<sup>194</sup> Wade Wade (1988) quoted by Horning (2000).

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government authorities. In contrast, principle two suggests that restrictions on harvests of resources should be related to local conditions (rather than saying the lower or higher the level of withdrawal, the more or less success in management). Thus, it is possible to imagine certain resource and user group characteristics for which withdrawal levels can be high, and setting them at low level may lead to difficulties in management. Where supplements to resources stock are regular and high, and user group members depend crucially on resources. So setting harvest levels low will likely lead to unnecessary rule infractions. Finally he concludes that most Ostrom principles focus on local institution, or on relationship within the local context.

Based on the previous section, Ostrom (1998, 2007) has formulated a relevant question on the management of commons: When do users self-organise? De Young (1999)<sup>195</sup> showed that a considerable amount of interdisciplinary work has been produced by examining CPR institutions. The most exciting experience is to see how individuals involved in tragic situations have enough insight into coordinating their efforts and managing a CPR without external intervention. However, scholars who have conducted extensive field research on locally self-organised institutions for managing common-pool resources have identified a set of attributes for appropriators which they consider to be conducive to the evolution of norms, rules, and property rights and to greater probabilities of sustainability for common-pool resources. However, there are some controversies about particular variables, such as the size and homogeneity of a group.<sup>196</sup> So, within the academic world, there exists a consensus on certain attributes to common pool resources and users that are conducive to increasing the likelihood of self-organized management. The conditions necessary for the development of durable, self-initiated and self-managed CPR institutions are being extracted from the analysis of CPR case studies. No single set of conditions seems essential. Instead, the mix of necessary conditions varies within limits according to the specific attributes of the biological, physical, psychological, political and economic contexts. Ostrom (1990, 1994) has brought clarity to these findings by organising the conducive conditions to long-term survival of a CPR institution into eight themes. The following variables are frequently found in the list of factors or characteristics considered by empirical researchers to be crucial foundations of selfgoverned resource use: characteristics of resource system, user's characteristics,<sup>197</sup> and

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<sup>195</sup> De Young (1999).

<sup>196</sup> Anderson & Runge (1994); Poteete & Ostrom (2003).

<sup>197</sup> Users characteristics or participants attributes conducive to their selection and enforcement of norms, rules, and property rights and favourable for the performance of self-organizing systems include: general reliable information or accurate information about the condition of the resource.

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task characteristics,<sup>198</sup> nature of the relationship between a group,<sup>199</sup> size,<sup>200</sup> and heterogeneity.<sup>201</sup>

No.	Principle	Description
a	Clearly Defined Boundaries	Individuals or households with rights to withdraw resource units from the common-pool resource and the boundaries of the common-pool resource itself are clearly defined
b	Congruence	A The distribution of benefits from appropriation rules is roughly proportionate to the costs imposed by provision rules. B Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions.
c	Collective-Choice Arrangements	Most individuals affected by the operational rules can participate in modifying these operational rules. There is a need to remain adaptable, to be able to modify the rules with regard to membership, access to and use of the CPR and to remain responsive to rapid exogenous changes.
d	Monitoring	Monitors, who actively audit common-pool resource conditions and appropriator behaviours, are accountable to the appropriators and/or are the appropriators themselves
e	Graduated Sanctions	Appropriators who violate operational rules are likely to receive graduated sanctions (depending on the seriousness and context of the offence) from other appropriators, from officials accountable to these appropriators, or from both.
F	Conflict-Resolution Mechanisms	Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials. There is also the need to adapt the rules to changing conditions and apply different rules to different problems and scales of problems

<sup>198</sup> Task characteristics are based on institutional regimes through which resources are managed, on communication possibilities and sanctioning institutions.

<sup>199</sup> The nature of the relationship between a group, external forces and authorities such as markets, states and technology (See for review Ostrom (1998, 2000, 2007); NAC (2002); Horning (2000); see also Liverman & Vilas (2006); Blomquist (1992); Ostrom (1999a); Ostrom (1990); Sethi & Somanathan (1996); Cordell & McKean (1992); Ostrom (1990); Berkes (1996); Anderson & Runge (1992); De Young (1999)).

<sup>200</sup> The effect of the number of participants facing problems of creating and sustaining a self-governing enterprise is unclear. Referring to Mancur Olson's earlier work quoted by Anderson & Runge (1994) many theorists argue that group size is negatively related to solving collective-action problems in general (Anderson & Runge (1994); Baland and Platteau (1996)).

<sup>201</sup> Many scholars conclude that only very small groups can organize themselves effectively because they presume that size is related to the homogeneity of a group and that homogeneity is needed to initiate and sustain self-governance. Heterogeneity is also a highly contested variable. For one thing, groups can differ along a diversity of dimensions including their cultural backgrounds, interests, and endowments (Ostrom (1994,1998); Anderson & Runge (1994), De Young (1999); Poteete & Ostrom (2003)).

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g	Minimal Recognition of Rights to Organize	The rights of appropriators to devise their own institutions are not challenged by external governmental authorities. Appropriators must be able to legally sustain their ownership of the CPR. Furthermore, their organisation must be perceived as legitimate by the larger set of organisations in which it is nested.
h	Nested enterprises	Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organised in multiple layers of nested enterprises

Table 3-1 Design Principles Illustrated by Long-Enduring Common-Pool Resource (see Horning (2000); Ostrom (1990))

### 3.2.6 Institutional change/Institutional regime: privatisation, centralisation and Common property regime.

Based on section 3.2.4, the different attributes to resources and users are linked to one another; their collective consequences affect the benefits and costs of institutional change for self-organised management. In general, costs tend to be higher when a resource is very large or boundaries are difficult to mark; A resource is unpredictable when users have not developed trust and reciprocity and users do not have prior experience with self-organisation. On the other hand, benefits tend to be higher when users are dependent on a resource and have a low discount rate. In sum, the attributes of common pool resources and of individual users affect both benefits and costs. If the immediate perceived costs of organising outweigh the long-term perceived benefits for those who make local rules, overuse of a resource will occur, possibly leading to a ToC. The institutional capacity of a regime is also an important variable in the management of common pool resources. In particular, larger institutions facilitate self-organisation when they provide or recognise accurate information, arenas in which participants can engage in discovery and conflict resolution processes, and finally mechanisms to back up local monitoring and sanctioning efforts.<sup>202</sup>

In this context, there is recent and extensive literature providing considerable empirical evidence that individuals may evolve and adopt self-governing institutions which enable the

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<sup>202</sup> Ostrom (1999a).



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resolution of conflicts within the CPRs.<sup>203</sup> These regimes have historically evolved in places where the demand for resource is too higher to admit open access and, at the same time, there are some factors which favour resource integrity (indivisibility, sharing risks, economies of scale, administrative efficiency,...), make impossible or less desirable to parcel the resource itself (individual private property) and convert owner-protectors into overusers and so on. Problems in forest management have very often emerged when local self-organisation has not been recognised by policy makers and when the autonomy of forest users has been threatened.<sup>204</sup> Information problems exist also in the management of the CPRs but owners are able to design some institutions that solve the problem better than markets.. These conceptual errors give rise to some adopted policies based on an inadequate theoretical foundation. The evolution and persistence of commons in Navarra suggest the possibility that these forests and mountains could be considered as a successful management CPR case, according to the recent literature mentioned above.<sup>205</sup> The reason why commons had received so little attention by economists could be explained by the scarce existing data about these properties. The reasoning fit quite well. The privatisation process in Navarra was much less stronger than other in regions in Spain. There are some historical and political reasons which can help to understand these differences, but they must not be overemphasised. Traditional explanations show a Navarra opposition history to the liberal reforms based on the social cohesion among their people and their Navarra local Government.<sup>206</sup>

A major question that has emerged from the research and discourse on community-based natural resource management in southern Africa is whether traditional rules comply with generally accepted principles of common property management. In other words, do traditional institutions offer a solution for the sustainable management of natural resources held in common? Luckert (2001) for example, explained: “Just as the present colourful ‘traditional’ Swazi dress is known to have come in at the turn of the (20<sup>th</sup>) century; so many features of the social and political organizations may well have acquired their present form at a relatively

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<sup>203</sup> The common pool situation could be the result of an initial allocation of property rights, but there is no obstacle to the parties themselves (the users and structuring), their relationships with each other in such a way as to minimise the common pool problem. See literature on common pool resources coming from the new institutionalism economics like Ostrom ; for some Spanish examples, see Aizpurua & Galilea (2000).

<sup>204</sup> See Ostrom (1999a). Since ‘to rationalise a role for the state in this way, of course, does not insure... that it will improve the situation when it does. So, much of the requisite information, let alone the motivation, is lacking, precisely, because private-property-based markets can function only with difficulty when such problems are serious’; as a consequence he considers “high transaction costs and free-rider problems sometimes can be resolved by substituting private rights for communal property arrangements” (the italic is ours).

<sup>205</sup> When analysing the few studies existing about it -something hardly researched by economists- it is only in last years that some good papers by Aizpurua& Galilea (2000) appeared.

<sup>206</sup> Aizpurua& Galilea (2000).

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recent date. Nonetheless, they are specifically Swazi and traditional now.” Adams & Hulme (2001) showed that it is in this sense that the word “tradition” is used here to distinguish between what people today consider to be their own established practices and rules governing access to land and natural resources, as opposed to outside interventions which propose new rules and regulations to which people are unaccustomed. Traditional institutions are, in other words, informal constraints that are part of a people’s heritage that we call culture and therefore include values, norms, and taboos and so on.<sup>207</sup> Although we frequently fail to recognise it, a number of development projects have dimensions that may be characterised as the engineering of social structures. By engineering, it means the intent to change elements of social institutions, such as property rights and organisations, presumably to increase the welfare of people.

Echoing earlier scholarship on the common, they emphasise the distinction between open access and common property arrangement and suggest that when private property regimes are compared with regulated common property systems and when information is perfect and there are no transaction costs, then “Regulated common and private property are equivalent from the stand point of the efficiency of resources use”.<sup>208</sup> They further argue that the privatisation of CPRs or their appropriation and regulation by central authorities tends to eliminate the implicit entitlements and personalised relationships that characterise communal property arrangements. These steps, therefore are likely to impair efficiency, and even more likely to disadvantage traditional users whose rights of use are seldom recognised during privatisation or expropriation by the state. Their review of the existing literature on property rights and economic theory leads them assert that “none of the property rights regime appears intrinsically efficient” and that the reasons why common property arrangements are criticised to be inefficient are also likely to be haunt privatisation measures. Where agents are not fully aware of ecological processes, or are unable to protect their resource against intruders, or are mired in levels of poverty that drive them overexploitation environmental resources , state intervention may be needed to support both private and common property. In this sense, there are no clear theoretical predictions regarding the superiority of one property regime over another. Communal management refers to user governance and local-level systems of CPRs management,<sup>209</sup> and co-management to a mixture of local and state governance over a publicly-owned resource. Common property resources often exist in relatively high-risk, low-

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<sup>207</sup> North (1990).

<sup>208</sup> Luckert (2001).

<sup>209</sup> McCay & Hanna (1998).

productivity areas, where few factors favour privatisation or where there are concerns for collective sustenance and ecological fragility.

One final issue involves finding ways to encourage the formation of self-organized CPR institutions. The costs of exploring and initialising CPR management options are high. Without a supportive procedure, crafting and exploring alternatives will prove too risky for small groups of individuals. One approach to creating CPR institutions is called “adaptive muddling”.<sup>210</sup> This is a form of muddling that lays emphasis on not small steps but small experiments. It offers a way of simultaneously exploring several possible solutions thus avoiding the sluggishness that plagues the one-solution-at-a-time approaches. People are empowered to apply local or personal knowledge to a situation. Different people applying different knowledge’s to the same situation create a variety of potential solutions. Exactly such enhanced and diverse creativity is needed. Furthermore, as conceived, adaptive muddling contains a stability component that does not only reduce the costs of failure for individuals but also makes highly improbable any unchecked and disorienting change and the widespread implementation of untested solutions.<sup>211</sup>

### **3.2.7 Types of properties**

Property rights of individuals or groups over an asset consist of the rights to draw benefits, to exclude others from benefits, to manage the asset, and to involve in productive activities associated with the asset.<sup>212</sup> De Young (1999) argued that property or management rights include rights for providing or sharing inputs, rights to decide the management or production process, rights to organise production process, and rights to intermediate in final outputs. In this respect, there are a number of approaches that have been developed to attempt to categorise many types of complex social conditions into different typologies of property rights. For a review of some of these approaches, there are four views of these typologies:

- a) For the first defined as new classical view of property rights<sup>213</sup>;
- b) The second view as common pool resources view of property rights<sup>214</sup>;
- c) The third view as co-management or collaborative management;
- d) Fourth view as forest concessions.

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<sup>210</sup> De Young (1999).

<sup>211</sup> De Young (1999).

<sup>212</sup> Kant & Zhang (2002).

<sup>213</sup> See Feder & Feeny (1991); Van Kooten & Wang (2001).

<sup>214</sup> See Ostrom (1999a); Ostrom (1998); FAO (1995); Anderson & Runge (1994); Agrawal (2001).

### **3.2.7.1 Neo-classical economic view of property rights**

Privatarian or neo-classical economic view of property right scholars distinguishes four forms that property rights take:

- a) Private property or individually controlled: an individual is assigned the rights for socially acceptable ends and the corollary duty of others to avoid preventing this;
- b) State or government property ownership: under state property, management of the land is under the authority of the public sector;
- c) Communal ownership or group controlled: under communal property, exclusive rights are assigned to a group of individuals; they also have rights to exclude non group members from use;
- d) Open access.

These four categories are ideal analytical types (see Table 3-3). As quoted by Kant & Zhang (2002), if the group holding exclusive communal rights is large enough, the distinction between communal property and open access or uncontrolled becomes moot. If private property rights are not viewed as being legitimate or are not enforced adequately, de jure private property becomes de facto open access. Nonetheless, the simple taxonomy is useful for describing property rights systems. These categories help to dispel the confusion between controlled use and uncontrolled use of resources: They also help to point out unearned assumptions (for example, the social insular character of the individual) which drive both this confusion and the crude dichotomy between government and individual solutions to environmental collective actions problems. The summarised Table 3-2 below shows the view of the scholars from new classical economics of property rights, along with their characteristics. If exclusivity is generally considered the most important characteristics of property rights, in fact, the lack of any exclusivity will imply the lack of an incentive to conserve, and therefore often results in degradation of scarce resources<sup>215</sup>. However this property view is only based on a single attribute of the object. But every property or asset has multiple attributes<sup>216</sup> and Kant & Zhang (2002)<sup>217</sup> highlighted that these attributes may be totally different in their physical and economic features. They show for example that the

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<sup>215</sup> Ostrom (2000); Van Kooten & Wang (2001).

<sup>216</sup> Kant & Zhang (2002).

<sup>217</sup> Kant & Zhang (2002).

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different attributes of forests are timber, non-timber physical products, environmental and ecological services, recreational services, and aboriginal services. Some of these attributes have characteristics of a private good, such as timber and some non-timber physical products; some of a public good such as environmental and ecological services; and some are common-pool goods with difficult exclusion but with high subtractability, such as fruits, berries and leaves. Normally, forest attributes of private good nature are traded in the market and priced, but attributes with features of public goods and common pool goods are normally not traded in the market, and are not priced.

However, absence of pricing does not mean the attributes are not valuable, but absence of pricing definitely means that the Walrasian model is not the correct choice to explain resource allocation in the case of forest resource management. The different attributes of forest may have different economic values for different groups of actors. Because of different economic values for different groups, any pattern of property rights inclined towards the single right-holder or ownership to all attributes of forest will increase externalities, and may not yield the maximisation of social welfare. Since, the different attributes of forests have different economic values for different groups, one group may not have all the physical factors necessary for the management (production process) of resources, and the single right-holders may have to acquire these inputs from outside sources. But, the different groups having joint property rights on different attributes may be able to contribute to social welfare by pooling their factors together. In the case of single ownership or right holder, the focus of right holder will be on a single or few attributes, which are valuable to the right holder, and other attributes will be in the public domain, resulting into open access problem. Hence, an economically efficient structure of rights has to be designed to allocate property rights of all attributes among parties, in such a way that the parties having comparative advantage in managing the attributes should be susceptible to the open-access.

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Type	Characteristics	Implications for economic incentives
Private property (dominant economic theory of property rights)	Exclusive rights assigned to individuals	Strong incentives for conservation of resources and for investment
State ownership	Rights held in collectivity with control exercised by the authority or designated agency	Creating opportunities for attenuation of rights, manager have incentives for personal gains
Communal ownership	Exclusive rights assigned to all members of a community, approaching private property	Creating free-riders problem and low incentives for conservation
Open access	Rights unassigned, lack of exclusivity	Lack of incentive to conserve, often resulting in resource degradation

Table3-2 Classification and characteristics of property rights according to new-classical economics scholars.

<b>Subs tractability</b>		
<b>High</b>	<b>Low</b>	
Private Goods	Toll Goods	<b>Easy</b>
Common-Pool Resources	Public Goods	<b>Exclusion</b>
		<b>Difficult</b>

Table 3-3 Types of goods

### 3.2.7.2 Common pool resources view

The second group of scholars, the common pool resources view of property rights, identify five property rights that are most relevant for the use of common-pool resources, including access, withdrawal, management, exclusion, and alienation. These are defined as:

- a) Access: The right to enter a defined physical area and enjoy non-subtractive benefits (for example, hike, canoe, sit in the sun);
- b) Withdrawal: The right to obtain resource units or products of a resource system (for example, catch fish, divert water);
- c) Management right: the right to regulate internal use patterns and transform the resource by making improvements (e.g., planting seedlings and thinning trees);

d) Exclusion: the right to determine who will have an access right, and how that right may be transferred;

e) Alienation: The right to sell or lease management and exclusion rights.

### **3.2.7.3 Co-management or collaborative management**

The third view represented by the advocates of the co-management or collaborative management or joint management have raised the issues discussed by Kant & Zhang (2002) in the first view. They (Kant & Zhang (2002)) argued that joint allocation of property rights will also help in capturing the gains due to the specialisation of different groups in the management of different attributes. They showed that Co-management seems an attempt in that direction. Whether or not a particular co-management arrangement is Pareto-improvement will depend upon actual property right structure used in the specific co-management arrangements and the pre-existing property rights. An individual's or group's rights over an asset or some attributes of an asset are not static, and have functions of their own. The efforts of other people or group to capture them will depend upon the value of the asset or the attributes to those people. The value (timber and non-timber products, non-marketable values, and environmental benefits) of an asset or some attributes to a group/individual is not the same over a time, and may vary with socio-economic, market, political, and environmental factors. For example, about thirty years back, environmental and ecological services of forests were not treated as to be much valuable.

But, now due to environmental awareness and environmental movements all over the world, these attributes have become highly valuable, if not to the whole society, at least to environmental conscious groups and people. Similarly, even though Aboriginal values were always valuable to Aborigines, society as a whole did not put much importance in recognising these values. But now, society as a whole recognises Aboriginal values. Hence, the efforts of non-right holder groups to capture rights to the asset or at least some attributes of the asset will evolve with time. The main reason of emergence of co-management systems, in the recent past, is the increasing values of many attributes of forest which were not valuable before, and the attempts of these groups, such as environmental, Aboriginal, to capture the rights of the groups, such as forest industries and states, who previously hold the rights over some other forest attributes such as timber.<sup>218</sup> Here, the concept of co-property or co-

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<sup>218</sup> Kant & Zhang (2002).

management is when actors or interest groups form partnerships for the purpose of soliciting participation in decision making or implementing each other's management programs. In this sense, property or powers are not transferred with co-management; it is not a form of decentralisation. It is more akin to a contracting arrangement for implementation of programs or the provision of services (Similar to co-administration).

### **3.2.6.4 Forest concessions view of property rights**

Forest concessions have been an important element of forestry and forest management in many countries. It is also the predominant form of forest tenure and the primary mechanism for the allocation and utilisation of forest on public lands in Cameroon production forest. Forest concessions are a form of forest tenure.<sup>219</sup> More often than not, the concession experiences of the Cameroon forests have not been successful and have considerable problems. For example, in most tropical countries, past forest concession agreements have ignored forest uses by forest dwellers, concession agreements have not provided sufficient incentives for forest management, nor included measurable performance requirements. Also, arrangements for supervising and monitoring concessions are weak. Forestry departments and ministries are often under funded and ill-equipped, with little field capacity for inspection and monitoring<sup>220</sup>. Gray (1991) argued also that long-term concession contracts do not, as is often thought, provide incentives for sustainable forest management. Forest concessions involve a contract between the forest owner and another party giving rights or permitting to manage or harvesting specified resources from a given forest area.<sup>221</sup>

Forest concessions in most parts of Cameroon involve both types of contracts; granting harvesting or use rights, but also requiring forest management and other obligations as part of the contract. In Cameroon forest concessions are long-term contracts of 15 years, renewable. Logging concessions cover 76% of the forest area, with over half of the area in abandoned concessions<sup>222</sup>. Forest tenures involving forest utilisation contracts and granting rights to harvest timber without forest management obligations are often termed forest leases or timber sales and consist, for the case of Cameroon, of "Vente de coupe" or "permis d'exploitation"<sup>223</sup>

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<sup>219</sup> Gray (1991).

<sup>220</sup> Gray (1991).

<sup>221</sup> Forest utilisation contracts) and/or a contract to manage given resources within the specified forest area (forest management services contracts Gray (1991).

<sup>222</sup> Global Forest Watch (GFW) (2001, 2005).

<sup>223</sup> Cutting licence in Cameroon forestry Law (1994 in PRC 1994).



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This form usually involves short-term contracts of one year. Forest concession contracts can be between a government, as owner of public forest land, or a private forest land owner and a private corporation, private individual, government agency or corporation, community, or co-operative. In Cameroon, this contract are generally between the private company or private sector corporations or individuals and the government, as owner of public forest lands for use and management obligations.

As a conclusion to this section and according to the goal of this working paper, property right muss be clarified and well defined in order to avoid conflict within the forest management planning process and to achieve effective forest management plan. We also learn from this review that forest has to be considered as CPR in order to reduce the cost of exclusion which is not easy to achieve. This review on property rights also highlights that scholars of the common have been focusing mostly on the community-based resource planning or self-governance approach or bottom-up. However, this approach has also been criticised by scholars like Berkes (2002a, 2004a)<sup>224</sup> who show the limit of self-governance and then become pessimistic about the self-governance theories, when taking into account the scale of the management or the size of actors as well as it diversity. In this respect, neither the privatarian, neither the centralised, nor the common property regime is exclusively the overall right solution for the “tragedy of common or anticommon”. Anderson & Ostrom (2006)<sup>225</sup> argued that institutional arrangements operating at larger or smaller governance scales, such as national government agencies, international organisations, NGOs at multiples scales, and private associations also have a critical role to play in natural resources governance regimes, including self-organised regimes. These views show that a need for a new approach to the integration of institutional questions or problems within the planning framework, as addressed in this working paper, challenges the central tenet of this argument, and posits the view that, under certain circumstances, local people, together with the state and private as well as all the main stakeholders should become the managers of the forest.

This review on property rights as forest management planning institutional framework therefore recommends the co-property, co-management system or collaborative system which integrates all the values of the forest as well as the actors of the property rights system, within which each actor or participant is in equal position for negotiations, or where equilibrium

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<sup>224</sup> Berkes (2002, 2006).

<sup>225</sup> Anderson & Ostrom (2006).

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exist as promoted by the game theorist. Co-property or co-management will, through partnership building, guide the choice and sequencing of rights within a forest management planning process. This must be complemented by at least the minimum environmental standards. Well-structured co-property of the forestry sector can foster local democracy and a sense of accountability. Thus this concept of co-property will then be an alternative for the improvement of the conflicting situation within the forest concession system and thereby increasing its performance. Yet, sustainable forest management is still to be achieved and deforestation to be brought under control in Cameroon. The next section will discuss the decentralisation situation with emphasises on the Cameroon one.

## 4 Decentralisation discourse

### 4.1 Background

The central focus of human activity has been, and continues to be, the effort by human beings to gain greater control over their lives by developing a structure to order their relationship to the environment. In effect, the ubiquitous objective has been to reduce the uncertainty that characterises the environment.<sup>226</sup> The last half century has witnessed many efforts to reform the economic and political performance of developing countries.<sup>227</sup> Throughout much of the past 20 years, conservation and natural resources management have witnessed a paradigm shift away from costly state-centred control towards approaches in which local people play a much more active role.<sup>228</sup> Larson (2004)<sup>229</sup> also highlighted in the same view like Hobley (1996)<sup>230</sup> that one of the most important arguments for reforms in forestry governance relates to the historical exclusion of many local people from access to forest resources.<sup>231</sup> These wrongs constitute the primary reason that central governments adopted policy reforms rhetoric.<sup>232</sup> Larson (2004)<sup>233</sup> also showed that other important arguments for policies reform in forestry in practice is to reduce costs, often while increasing forest department revenues,<sup>234</sup> reaffirming private property rights<sup>235</sup> and/or addressing central government problems of legitimacy or economic and political crises<sup>236</sup> at the same time. Consequently, democratisation may be a stated goal but in reality is sometimes no more than official rhetoric.

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<sup>226</sup> North (2005).

<sup>227</sup> Ostrom (1998).

<sup>228</sup> In fact, since the early 1980s proportionately less attention has been devoted to local issues of the decreasing access to forest resources and its implications for local people dependent on forests for securing their livelihoods. An important component of most major international funding agencies support for forestry has been to promote institutional change within forestry bureaucracies in order to encourage them to be more responsive to the needs of forest-dependent villagers (Ahmed & Mbwambo (2004)).

<sup>229</sup> Larson (2004).

<sup>230</sup> Hobley (1996).

<sup>231</sup> The goal was the promotion of commercial logging or forest concession which resulted from the Structural Adjustment program of the World Bank (Gray (1991)).

<sup>232</sup> Larson (2004); Ribot (2004).

<sup>233</sup> Larson (2004).

<sup>234</sup> Muhereza (2002); Pacheco (2002, 2004).

<sup>235</sup> Pacheco (2002, 2004); Beneria-Surkin (2003).

<sup>236</sup> Anderson et al. (2004); Kassibo (2002); Oyono (2004 a,b); Ahmed & Bwambo (2004); Kpundeh 1992.

Another argument for policy reforms has been given by Ribot (2002a)<sup>237</sup> who argued that, as called for in the Rio Declaration and Agenda 21, governments, donors, and international NGOs have experimented widely with participatory natural resource management strategies as a means for increasing efficiency and equity in natural resource management and use. The final important argument for policies reform is based on donor pressure and often plays an important role in initiating decentralisation. Specific pressure in the forestry sector is less common than in the service sector though. However, some studies found out that decentralisation policies actually served as a way to increase state control over forest management.<sup>238</sup> In this respect, Agrawal & Ostrom (2003) also discovered that decentralisation most often occurs when there is significant elite support within government, pressure from international donors (with financial incentives) and demands from local actors. Local actor demands may not be needed to initiate decentralisation, he argues, but are needed to actually bring about real political changes, although, Donor pressure may result in “imported” laws that are not appropriate for the national reality.<sup>239</sup> And decentralisation rhetoric may simply be employed principally to appease donors and garner funds without actually implementing any meaningful changes.<sup>240</sup>

Decentralisation as one of the important policy reforms is a relatively recent process with an increasing trend worldwide in the last decades. It has emerged as a major strategy for many nation-states to achieve development goals, provide public services and undertake environmental conservation. National governments in almost all developing countries have begun to decentralise policies and decision making related to development, public services, and the environment.<sup>241</sup> Decentralisation in its various types has been implemented in many countries, and the terms have been widely used.<sup>242</sup> Out of 63 of the 75 developing and transitional countries with populations greater than five (5) million, all but 12 claim to be embarked on some form of transfer of political power to local units of government.<sup>243</sup> Decentralisation has included decentralisation of some forest management control to the local level through a variety of new institutional arrangements, and also changes in the policy framework as well as the bureaucratic structure. This is recognised as a result of increased

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<sup>237</sup> See also Ribot (2002 a,b); Earth Summit (2002).

<sup>238</sup> Contreras (2003); Agrawal & Ostrom (2003).

<sup>239</sup> Kassibo 2002.

<sup>240</sup> Anderson et al. (2004).

<sup>241</sup> Agrawal & Ostrom (2003).

<sup>242</sup> UNO (2004).

<sup>243</sup> UNO (2004); Agrawal & Ostrom (2003); Ahmed & Mbwambo (2004); Agrawal & Ribot (2000).

dissatisfaction brought in by centralised system that existed in the past.<sup>244</sup> These reforms purposely aim, according to Ahmed & Mbwambo (2004), at increasing resource users participation in natural resources management decisions and benefits by restructuring the power relations between central state and communities through the transfer of management authorities to local-level organisations. Also, international institutions recognised the urgent need of local people's involvement in the management of forest resources.<sup>245</sup> For example, Hobley (1996)<sup>246</sup> argued that property rights structures have been skewed in favour of the state, at the expense of local people's needs in the past century. Therefore, at the heart of the efforts for decentralisation within the forest sector, there lie divergent claims of ownership over forest lands on one hand (see last section about property rights) and the benefits sharing on forest utilisation on the other. However, according to Ribot 2002a privatisation which is the transfer of powers to any non-state entity, including individuals, corporations, NGOs, etc., although often carried out in the name of decentralisation, privatisation,<sup>247</sup> is not a form of decentralisation. It operates on an exclusive logic, rather than on the inclusive public logic of decentralisation. It is something of a different case, and there is debate among academics about whether this constitutes decentralisation or not. Regardless, the process of privatisation can have major implications on how the forests are managed and how the revenues they generate are distributed.

In this respect, under recent forestry initiatives, new tenurial arrangements and benefice sharing scenarios have been introduced in many parts of the world such as the new forest taxation system in Cameroon. It is not clear, however, that these changes alone have made a substantial difference to villagers' well-being. In some cases, villagers already had de facto use rights and benefice to forest lands.<sup>248</sup> In other cases, the rights and benefice were more short-lived than was expected.<sup>249</sup> However, advocates of indigenous people's rights argue that local communities should have their original "land" claims recognised by the state. Such views according to them underpin principle 22 of the 1992 Rio Declaration, which should guide the approaches of governments to local communities and the management of natural resources. This Principle is reproduced<sup>250</sup> since it describes the new "philosophy" and

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<sup>244</sup> Ahmed & Mbwambo (2004).

<sup>245</sup> Cf. art.8 Biodiversity Convention in *www.cbd.int*.

<sup>246</sup> Hobley (1996).

<sup>247</sup> Privatisations as the process by which functions formerly run by government are delegated to the private sector.

<sup>248</sup> And formalisation of these rights has led to a diminution in the benefits available.

<sup>249</sup> Hobley (1996).

<sup>250</sup> See Erath Summit (2002); UN (2004).

provides the ideological backbone for interventions in the forestry sector. Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognise and duly support their identities, cultures and interests and enable their effective participation in the achievement of sustainable development.<sup>251</sup>

In several countries, villagers themselves have raised questions about the security of their claims in the face of political instability and shifting government policies at the national level. Although use rights have been important in improving villagers' security of access to land, there continues to be debates about whether they should press for full ownership and for full participation in benefice sharing. Larson (2004)<sup>252</sup> argued that Local governments are increasingly important actors in forest management. Ahmed & Mwambo<sup>253</sup> assumed that the lexicon in which discussion occurs is as varied as the background of those who participate.<sup>254</sup> Partly as a result of this, the economic and political literature on decentralisation is inconclusive. The debate, both theoretical and empirical, on whether decentralisation increases or decreases social welfare and efficiency is still very much unresolved. They showed that proponents of decentralisation often assume away the central problem of decentralisation by asserting that it brings decision-making closer to the people who result in better decision-making and the consequent increase in social welfare. Furthermore, property rights scholars show that two major forms of decentralisation have emerged. The first seeks to devolve property right over natural resources to local individuals and community. The second advocates for the formal powers of government to its own subunits.<sup>255</sup> Both kinds of decentralisation make claims that outcomes will be more efficient, flexible, equitable, accountable, and participatory (...).<sup>256</sup> According to ITTO (2004)<sup>257</sup> many peoples see

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<sup>251</sup> These agreed actions address, among other things, according to the UNO (UN (2004)) report: the enhancement of broad participation in decision-making and management of forests by local people; facilitation of fair and equitable sharing of the benefits from forests; reduction of social costs and negative environmental impacts from unsustainable forest management; respect of customary and traditional rights of indigenous and local communities; maintenance and using of traditional forest-related knowledge; encouragement for investment in sustainable forest management; and development of appropriate strategies for the protection of multiple functions and sustainable use of forests. These actions from UNO report show that there are clear linkages between decentralisation processes and efforts of countries to achieve the principle of sustainable forest management as set out by the Rio Forest Principles and by actions agreed upon subsequently in the post-UNCED process under the Intergovernmental Panel on Forests, Intergovernmental Forum on Forests, and now the United Nations Forum on Forests (UNFF) (Earth Summit (2002); UN (2004)).

<sup>252</sup> Larson (2004).

<sup>253</sup> Ahmed & Mwambo (2004).

<sup>254</sup> I.e. Economists, Political Scientists, Sociologists, Anthropologists, Public Administrators, etc.

<sup>255</sup> Anderson et al. (2004).

<sup>256</sup> Ostrom (1998).

<sup>257</sup> See also Ahmed & Mwambo (2004); Marjuni (1990, 1992).

decentralisation as an extension of community forestry, whereby people living in or near the forest gain greater access to and control over the resource. Ahmed & Mbwambo (2004)<sup>258</sup> mentioned that there are two opposing views of decentralisation in natural resources management:

The first view, as shown by Faquet (1997),<sup>259</sup> Pacheco (2004) and Ostrom (1998), criticises the fact that things are not going to change in case municipalities' received authorities for conservation and management of natural resources found in their areas. In some cases it could even worsen the current situation. Despite these claims, most decentralisation efforts end up without giving much power to local authorities or people.<sup>260</sup> Agrawal et al. (1999)<sup>261</sup> presented a discussion examining the justifications advanced for recent attempts at decentralisation around the world. According to Ostrom (1998) decentralisation has to be seen as another form of top down approach. Indeed, in most developing countries, decentralisation has been inefficient and results in counter productive effects.

The second view with advocates like Larson, Ribot (2002a,b), Oyono(2002a,b,2004a,b), Agrawal & Ribot (2000), stand for decentralisation by justifying that it promotes efficiency, more thoroughgoing equity, sustainable use and/or greater participation and responsiveness of government to citizens. These views have been based on the theories that presumed decentralisation can lead to a better match of public services to local needs, more efficient delivery of public services, facilitating self-governance, more equitable outcomes, and greater citizen participation in public affairs.<sup>262</sup> This shows and constitutes a growing group of supporters who argue that decentralisation, with all that it implies for institutionalising social participation, is essential for conserving the health of our natural resources and increasing possibilities for benefit sharing<sup>263</sup>. This, as argued by Agrawal & Ribot (2000), includes increased authorities for the management of the common by the local users. Ribot (2002b)<sup>264</sup> also with his brilliant publication about "African Decentralisation: Local Actors, Powers and Accountability," presented a more historical discussion for francophone West Africa.<sup>265</sup>

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<sup>258</sup> See also Pacheco (2004)

<sup>259</sup> Faquet (1997) cited by Ahmed & Mbwambo (2004).

<sup>260</sup> Agrawal & Britt & Kanel (1999): *Decentralization in Nepal: A Comparative Analysis* (Oakland: Institute for Contemporary Studies Press; Agrawal (2000).

<sup>261</sup> Agrawal & Britt & Kanel (1999); Agrawal 2000.

<sup>262</sup> WB 1999; World Bank (2002).

<sup>263</sup> Agrawal & Ribot (2000).

<sup>264</sup> See also Ribot (2002a).

<sup>265</sup> Furthermore, new institutional economics and public-choice literatures indicate that it is possible to achieve greater efficiency and equity in public decision making by internalising externalities, deploying all available

Considering these polarised ideas<sup>266</sup> one is tempted to ask whether decentralisation can be effective in bringing about equal use and benefit sharing of natural resources. The approach used in this working paper to review this concept of decentralisation is essentially drawn from a broad body of literature, including institutional change literature, as well as reviews on field-based studies which require site specificity and a high degree of social contextual understanding on the part of the implementing or facilitating organisation.<sup>267</sup> The following section examines, on the one hand, the potentials and effectiveness of decentralisation in natural resources conservation and management. On the other hand, it analyses its impact on the forestry sector from global imperative to decentralised control, paying particular attention to experiences gathered from case studies. In order to provide some empirical grounding to this review, Cameroon, Uganda, Nepal, India, Bolivia are taken as case examples, since they illustrate many of the major features of the impact of decentralisation on a highly centralised bureaucratic structure. Furthermore, the diversity of social and ecological conditions found in these countries enhances the lessons to be learned from their experiences.<sup>268</sup> In this respect, this section starts by giving the definition, form, dimension, actors of and reasons for decentralisation as well as some overview information on the key conceptual issues that shape the understanding of decentralisation in theory and practice. The rest of this part discusses the outcomes of decentralisation or the often instated roots of conflict over its practical implementation through some case studies results, drawing out the relevant lessons learned from specific experiences without necessarily making conclusive judgements about the whole process at a national scale. This review suggests that representation and accountability are critical within the concept of decentralisation, if devolved powers are to efficiently and equitably serve local needs, and conclude that the presumed benefits of decentralisation become available to local populations only when empowered local actors are downwardly accountable. An overview of some case studies of decentralisation, with emphasises might be useful to get some clarities.<sup>269</sup>

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information. See also other authors who also talk about decentralisation in the same breath as democratisation or as increasing the efficiency and equity: Dillinger (1994) and Crook & Manor (1998) and Totemeyer (1994) and Blair (1998) and Wang (1997) cited by Agrawal & Ribot (2000); see also Uphoff & Esman's (1974).

<sup>266</sup> From the last two paragraphs.

<sup>267</sup> Hobley (1996).

<sup>268</sup> Hobley (1996).

<sup>269</sup> Adapted to Ribot (2002a,b); Larson (2004).



## **4.2 Reasons for decentralisation, Concept definitions, forms and dimensions.**

### **4.2.1 Why decentralisation?**

The decentralisation of natural resource management is especially intricate because it is not only about providing services efficiently. It also requires the devolution of real powers over the disposition of productive resources. Below are the main factors which led to decentralisation:

- a) tropical forest destruction;
- b) Less participation of local people or conflict or legitimacy: In practice, the transfer of significant, autonomous decision-making authority regarding forest resources to local government is rare;
- c) High transaction cost and donor pressure.

The first reason (point a)) for decentralisation has already been developed by Roper et al. (1999), Nasi et al. (2006), FAO (2007), and therefore only the second and the third points (b) and c)) will be briefly reviewed.

The second point (b)) is based on the need to promote local participation and democracy. Ribot (2002a,b), Larson (2004), Agrawal & Ostrom (2001) showed that the decentralisation of natural resources is important for the lives of millions of households who are affected by the way governments manage forests and admit local claims. This is the most important argument for decentralisation which relates to the historical exclusion of many local people from access to forest resources and Larson (2004) argued that “Local people should be the primary beneficiaries of a decentralisation process that promotes greater local decision-making power, equity and democracy”.<sup>270</sup> Furthermore, the factors that lead to durable decentralisation of forests may be relevant in other arenas where decentralisation is occurring. It constitutes a framework which requires the resolution of divergent interests among a host of actors so that externalities associated with natural resource management are not disproportionately borne by any subgroup. Most justifications of decentralisation are built around the assumption that greater participation in public decision making is a positive good

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<sup>270</sup> See also Ribot (2002a,b).

in itself or that it can also be promoted as a way of increasing efficiency, equity development and natural resource management.<sup>271</sup>

Here, equity according to Ribot (2002a)<sup>272</sup> means that decentralisation is believed to help improve equity through greater retention and fair or democratic distribution of benefits from local activities, and efficiency means the economic and managerial efficiency. He showed that where decentralisation reforms are proceeding, they affect how local people value, access, use, manage, and voice their claims on and concerns about natural resources. Decentralisation reforms change the institutional infrastructure for local natural resource management and, in some cases, create an institutional basis for more popular and participatory management and use of natural and other public resources.<sup>273</sup> By bringing government decision making closer to citizens, decentralisation is widely believed to increase public sector accountability and therefore increasing effectiveness. New institutional economics and public choice literatures indicate that it is possible to achieve greater efficiency and equity in public decision-making by internalising externalities and deploying all available information. In fact, theorists promote decentralisation reforms based on the following proposition: if institutional arrangements include local authorities who represent and are accountable to the local population and who hold discretionary powers over public resources, then the decisions they make will lead to more efficient and equitable outcomes than if central authorities made those decisions.<sup>274</sup> Ribot (2002b) argued that theory indicates that downwardly accountable or representative local actors with significant discretionary power constitute the necessary infrastructure for effective decentralization. Decentralisation advocates, such as governments, donors, and NGOs, aim to “get the institutions right”, so as to improve development and environmental outcomes.<sup>275</sup> By analysing actors, powers, and their accountability, and by identifying other factors that shape outcomes, this report evaluates the above proposition. At its most basic, decentralisation aims at achieving one of the central aspirations of just political governance democratisation, or the desire that people should have a say in their own affairs.

In this sense, decentralisation is a strategy of governance to facilitate transfers of power closer to those who are most affected by the exercise of power.<sup>276</sup> And finally, decentralised

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<sup>271</sup> Ribot (2002a,b); Agrawal & Ostrom (2001).

<sup>272</sup> Ribot (2002a,b, 2004).

<sup>273</sup> Ribot (2002a,b)

<sup>274</sup> See Larson (2004); Ribot (2002a,b).

<sup>275</sup> See also Ribot (2002a,b, 2004).

<sup>276</sup> Agrawal & Ostrom (2000).

decision-making can be seen as an inherently important concern of democratic life. Most scholars on decentralisation of natural resources assert the superiority of decentralised solutions versus centralised solutions on the grounds of efficiency, equity, or sustainability. But even this simple statement example allows us to suggest that decentralisation of power and decision-making are likely when some central political actor(s) or a coalition of such actors find that decentralisation makes it possible to reduce costs (and/or improve revenues), deflect blame, or extend state control into social processes. Ribot (2002b)<sup>277</sup> has reviewed case studies from 10 Community Based Natural Resources Management (CBNRM) experiments, such as CAMPFIRE in Zimbabwe, Joint Forest Management in India, and "Gestion des Terroirs" in Mali, which created participatory processes in which local actors exercised natural resource management responsibilities and decision-making powers. The experiences from CBNRM shed light on some aspects of decentralisation. These experiences indicated that local democratic institutions can be the basis for effective local environmental decision-making that communities have or can develop the skills and desire to make and effectively executed resource management. Most CBNRM experiments, however, have been spatially and temporally limited and have taken place under the close surveillance, political protection, and financial support of international donors and NGO projects. Democratic decentralisation reforms present the opportunity to move from a project-based approach towards a legally institutionalised popular participation. Such reforms establish the necessary institutional infrastructure and empower representative local authorities for scaling up these popular-participation efforts across national territories. In concept, the current shift from participatory to decentralised natural resource management approaches is a shift from externally orchestrated direct forms.<sup>278</sup>

The second view is based on transaction cost and donor pressure: Larson (2004) showed that, in theory, decentralisation can increase efficiency by helping internalise costs and reducing transactions costs. The World Development Report (1988)<sup>279</sup> asserted that decentralising both spending and revenue authority can improve the allocation of resources in the public sector by linking the costs and benefits of local public services more closely together. The devolution of decision-making to local actors can reduce administrative and management transaction costs via the proximity of local participants to decision-makers and the access to local skills and information. Crook & Manor (1998) & Welch (2000) & Huther & Shah (1998) & Bienen et

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<sup>277</sup> Ribot (2002a,b).

<sup>278</sup> Ribot (2002a); Larson (2004).

<sup>279</sup> WB (1997); see also quoted by Larson (2004).

al. (1990) cited by Larson (2004) argued that in Nepal, decentralisation worsened information flow, thereby increasing transactions costs. Decentralisation is usually believed to increase effectiveness of coordination and flexibility among administrative agencies and in development/conservation planning and implementation. Decentralisation also seems to increase equity at the local level by greater local retention of revenues and more equal distribution of benefits from local activities. This efficiency and equity is believed to increase through according to Larson (2004), Ribot (2002a,b):

- a) accounting for costs in decision making: When communities and their representatives make resource use decisions, they are believed to be more likely to take into account (or “internalize”) the whole array of costs to local people. Resource waste may result when outsiders or unaccountable individuals make decisions based on their own benefits without considering costs to others;
- b) increasing accountability: By bringing public decision-making closer to the citizenry, decentralisation is believed to increase public-sector accountability and therefore effectiveness too.
- c) administrative and management transaction, costs may be reduced by increasing the proximity and access of local participants to local skills, labour, and local information.

To conclude this part, one can assert that the basic objectives of decentralisation are: effectiveness, local democracy, and socio-economic development, improvement in forest management, empowerment of local people, equity, and environmental security.

### 4.2.2 Definitions

Many efforts during the 1950s and 1960 stressed the importance of creating a strong, central government that would guide the polity and economy toward higher levels of growth and eliminating ethnic discrimination, which is still haunting many developing countries. These reforms were based on theories that national governments had superior powers to direct change and could use these powers to increase the productivity and efficiency of the economies. Many enterprises and most natural resources were “nationalised” or “collectivised” so as to prevent the presumed perversities of leaving decisions about them to private individuals<sup>280</sup>. Tragically, many of these reforms have not achieved their intended

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<sup>280</sup> See section 3.2.1.2 for more information about strong centralisation of the property (Ostrom (1998)).

objectives and might even have generated counterproductive results.<sup>281</sup> Therefore, many people perceive centralised, top-down approaches as having failed because of the poor performance of central government in the protection of natural resources. Unfortunately, there are many examples of inadequate and unsustainable natural resource management by central governments and large private interests from both the developed and developing worlds.<sup>282</sup>

In developing countries, governments are often distant from the resource base and have little means to effectively manage and control natural resources utilisation. In some cases, natural resources reserves (e.g. Forest) exist only on paper, having been exploited long ago and used for other purposes.<sup>283</sup> According to Larson (2004) concern about efficiency and cost-cutting is one of the main reasons why privatisation is often confused with decentralisation. Privatisation involves the transfer of powers to a private entity, such as an individual, a corporation or even an NGO, and is often proposed, if not required by multilateral banks and other donors, as a key strategy for increasing state efficiency. However, Ribot (2002a,b)<sup>284</sup> points out that privatisation and decentralisation operate from two very different logics: Firstly, privatisation is based on exclusion. That is decentralisation is based on a public logic of inclusion. The failures of these reform efforts have been well documented<sup>285</sup> and many protected area projects actually increased biodiversity losses as well as social conflict.<sup>286</sup> National governments are often unable to control the sometimes vast forest areas under their legal authority (large forest concession sometime more than 200.000 ha<sup>287</sup>. And local people often ignore or filter rules imposed from outside; under the right circumstances, they are much more likely to observe rules they participated in establishing.<sup>288</sup> Hence, in theory and according to this problem frame of the TAC, there is need for institutional framework which should also provide the conditions to enhance resource sustainability<sup>289</sup>. This new reform is characterised by what Alqadri et al. (2006) and Yasmi (2006) called from “centralistic” to decentralised management.

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<sup>281</sup> In recent years, many reform efforts have had a contrary trust and the forest sector has undergone a fundamental transformation, largely as a result of restructuring, downsizing, changes in ownership, forest royalty's reforms and increased recognition of the multiple benefits that forests provide (Ostrom (1998); Hobbey (1996); Anderson (2000)).

<sup>282</sup> Anderson et al. (2004).

<sup>283</sup> Ahmed & Mbwambo (2004).

<sup>284</sup> Ribot (2002 a,b).

<sup>285</sup> Because of the failure to integrate local livelihood needs into outside interventions, for example, integrated rural development projects were often ineffective (Caldecott & Lutz (1996)).

<sup>286</sup> Enters & Anderson (1999) cited by Anderson (2000).

<sup>287</sup> Carney/ Farrington (1998); Larson (2002).

<sup>288</sup> Gibson et al. (2005); Agrawal (2002).

<sup>289</sup> FAO (2003); Thomson et al. (1997).

In this respect, the UNO (2004) reported that the decentralisation processes<sup>290</sup> and the achievement of an appropriate balance between centralisation and decentralisation of forest-related decision-making and management are crucial to making progress towards sustainable forest management.<sup>291</sup> It (UNO) (2004) reported also that appropriate allocation of roles and responsibilities between central and local governments and the devolution of certain responsibilities to actors outside governments can contribute to equitable, efficient and sound forest management and conservation. On the other hand, inappropriate allocation of roles and responsibilities in forest management can result in negative impacts on people's livelihoods and contribute to deforestation and forest degradation. Decentralisation which is high on the agenda of the global economy and has been seen as a means by which the state can be made more responsive, more adaptable to regional and local needs than it is the case with a concentration of administrative power and responsibility in the central state.<sup>292</sup> Also, it has been seen as a means of achieving sustainability and efficiency, as well as new management ethos talks about clients, stakeholders and interest groups. The UNO (2004) report showed also that decentralisation aims to increase equity, efficiency, effectiveness and democracy as well as to improve forest management and sustainability, achieved through the sharing of benefits, experiences and responsibilities. In the same sense, Larson (2004)<sup>293</sup> highlighted that efficiency should increase through the decentralisation process because greater local input should result in better-targeted policies and lower transaction costs.<sup>294</sup> He shows that efficiency concerns, practically, are often the most important to central governments. But the equity and democracy benefits, specifically, greater control over livelihoods and a greater share of other natural resource benefits<sup>295</sup> are likely more important to most local peoples. These are expected to come about by bringing government "closer to the people" and increasing local participation as well as government accountability.<sup>296</sup> It can be a tool to achieve policy and program objectives in a way that would better meet the needs of local people. It offers the prospect of enhanced social and economic development through diversification and expansion of opportunities for sustainable use of forest resources. In forestry, a commonly stated objective of decentralisation is to increase the control that local people have over the management of the forest resource and their share of the benefits

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<sup>290</sup> Fiscal, or administrative realm as is commonly done.

<sup>291</sup> Instead of identifying decentralisation simply as an institutional reform in the political.

<sup>292</sup> Hobley (1996).

<sup>293</sup> Larson (2004).

<sup>294</sup> World Bank (1997); Worldbank (2002).

<sup>295</sup> Edmunds et al. (2003).

<sup>296</sup> WB (2002).

extracted as well as optimise their local benefits and provide "higher level public goods."<sup>297</sup> Larson (2004) highlighted, based on Center for International Forestry Research (CIFOR)'s perspective, that some degree of local authority over forests is essential for democracy, grassroots development and the sustainability of the world's forests. However, according to Agrawal & Ribot (1999), these new reforms of decentralisation do not attend to these elements in many instances around the world. In Senegal, responsibilities in forest management were devolved to local elected councils without devolving access to the related commercial profits.<sup>298</sup> In Burkina Faso, powers to cut, sell and manage forests have been devolved to private project-based committees, rather than to representative bodies.<sup>299</sup> In Nepal, one can point to projects that view decentralisation as being accomplished simply by directing a stream of monetary benefits toward a group of resource users rather than attempting to create institutions that allow durable decision-making powers to local authorities.<sup>300</sup>

Before entering into the analysis of the effectiveness of decentralisation in natural resources conservation and management, it is important to review the various meanings which the word has been given by both authors and the governments that implement it. Cheema & Rondinelli (1983) showed that decentralisation is "a transfer of authority to make policies and decisions, carry out management functions and use resources from central government authorities to local government, field administration, semi-autonomous corporations, area-wide or regional development organisations, functional authorities, sub-ordinate units of government or specialised functional authorities". Perhaps one of the best general definitions of decentralisation is the one given by Rondinelli et al. (1981) quoted by Ahmed & Mbwambo (2004). He defined decentralisation as "the transfer of responsibility for planning, management, and resource utilisation and allocation from the central government to:

- a) Field units of central government ministries or agencies;
- b) Subordinate units or levels of government;
- c) Semi-autonomous public authorities or corporations;
- d) area-wide regional or functional authorities."

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<sup>297</sup> UNO (2004).

<sup>298</sup> Ribott (2002a).

<sup>299</sup> Delnooz (1999) cited by Hagberg (2001).

<sup>300</sup> Agrawal & Ribot (1999)

Ahmed & Mbwambo (2004) defined the decentralisation as the devolution by central (i.e. national) government of specific functions, with all of the administrative, political and economic attributes that these entail, to local (e.g. villages or municipal) governments which are independent of the centre and sovereign within a legally delimited geographic and functional domain. Questioning the effectiveness of decentralisation as a political tool to ensure devolution of power, Webster (1990)<sup>301</sup> indicated that decentralisation has been seen as a means by which the state can be made more responsive, more adaptable, to regional and local needs than is the case with a concentration of administrative power and responsibility in the central state . . . But decentralisation of government in itself does not necessarily involve a devolution of power. The extension of the state outwards and downwards can equally serve the objective of consolidating the power of a state at the centre as well as that of devolving power away from the central state; it can both extend the state's control over people as well as the people's control over the state and its activities. Decentralisation is a two edged sword. He argues that the penetration of the state and centralisation of control are discussed in detail later in the paper, with respect to the development of local-level organisations. Calls for the devolution of power to the local level are pervasive across the predominant development approach pursued in developing countries, which are characterised by excessive centralisation, large-scale investment and modern technology, and has often resulted in sharp inequalities and widespread impoverishment. It has frequently been environmentally destructive and socially disruptive, with unregulated industry and concessions to capitalist interests contributing to both environmental degradation and the dispossession and impoverishment of indigenous people. The alternative approach to development, which is exemplified by the grassroots environmental movements, is characterised by small-scale activities, improved technology, and local control of resources, widespread economic and social participation and environmental conservation.<sup>302</sup>

Others including Mowhood (1983)<sup>303</sup> and Smith (1982) defined decentralisation from slightly different perspectives. They define decentralisation as any act by which central government formally cedes power to actors and institutions at lower levels in political-administrative and territorial hierarchy. The objective as argued by Ribot (2002a,b) included dismantling or downsizing central government by increasing local participation in democracy and strengthening local government. UNO (2004) report defined the decentralisation as a process

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<sup>301</sup> cited by Hobley (1996).

<sup>302</sup> Ghai & Vivian 1992 cited by Hobley (1996).

<sup>303</sup> Mowhood (1983) cited by Olowu (1989).



of transferring power from a centralised source to local governments, local communities and other stakeholders with emphasis on local people. It shows also that decentralisation is a complex and dynamic process that evolves over time, adjusting and adapting to changing contexts. In This respect, decentralisation is a process of transferring power (authority, competencies, responsibility and resources) from a centralised source to local government units, local communities and stakeholders with the intention of enabling them to envision plan and implement actions in forest management relevant to generating and sharing benefits from forests. Agrawal & Ribot (1999) showed that decentralisation has been defined as any act in which a central government formally cedes powers to actors and institutions at lower levels in a political-administrative and territorial hierarchy.<sup>304</sup> They argued that on should note that the formal transfer of power to lower levels of government may sometimes be a centralising act if the powers being devolved were earlier exercised informally by non-state actors. They assumed also that devolving powers to lower levels involves the creation of a realm of decision-making in which a variety of lower-level actors can exercise some autonomy.<sup>305</sup> According to Larson (2004), decentralisation is usually referred to as the transfer of powers from central government to lower levels in a political-administrative and territorial hierarchy.<sup>306</sup> He showed that decentralisation is a tool for promoting development and is aimed at increasing efficiency, equity and democracy.

Earlier forms of decentralisation as described by Mamdani (1996) who emphasised on national cohesion, effective rules and efficient management of rural subjects. In Contrast, the most recent definition of decentralisation presented by Larson (2004) and Ribot (2002a,b) who introduced the new emancipator language of democracy, pluralism and rights. Into this new direction, a distinction is made between democratic decentralisation and deconcentration. Democratic decentralisation, also called political decentralisation or devolution, involves the transfer of power to elected local authorities.<sup>307</sup> According to Ribot (2002b) democratic decentralisation integrates local population into decision making through better representation by creating and empowering representative local governments which are having autonomous domain of powers to make and implement meaningful decisions. The UNO (2004) report showed that decentralisation can be considered to be a complex and dynamic process that

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<sup>304</sup> Olowu (1989); Smith (1982).

<sup>305</sup> Booth's discussion of decentralisation in France discusses how it led to greater autonomy for local governments, but at the same time also prompted a struggle for the redefinition of the roles of different levels of government.

<sup>306</sup> Agrawal & Ribot (1999).

<sup>307</sup> Ribot (2001a,b).

includes constant learning and experimentation. They argued that there is a need for it to be phased gradually for building consensus through an open, transparent and inclusive process; participatory decision making; institutional, technical and human capacity building; provision of adequate financial resources and incentives for investment; tailoring objectives to local contexts and developing the flexibility to adapt to different situations and changing circumstances. Priority must be accorded to empowerment and capacity building of the local communities to effectively manage their natural resources.

Decentralisation should not simply transfer the burden of management but must have net positive benefits to local communities. The UNO (2004) reported that the process, objectives and outcomes of decentralisation vary greatly from place to place, and are highly context specific. However, two overarching goals for decentralisation are: sustainability and equitable self-determination. Under appropriate conditions, these can be mutually reinforcing outcomes. Larson (2004) showed other definition of decentralisation has been proposed by some researchers who see the decentralisation from the bottom to refer it to decision-making by local actors without any specific authority to do so, or de facto decentralisation to refer it to situations where local actors make decisions in a vacuum left by the loss of central government authority. Many authors argue that some form of decentralisation or demand from below is essential to forging local democracy as well as overcoming central government obstacles to decentralising authority.<sup>308</sup> According to Agrawal & Ribot (1999) decentralisation has been defined as any act in which a central government formally cedes powers to actors and institutions at lower levels in a political-administrative and territorial hierarchy. Devolving powers to lower levels involves the creation of a realm of decision-making in which a variety of lower-level actors can exercise some autonomy.

In Conclusion, this working paper adopts the following definition of decentralisation: “as a process of transferring power (authority, competencies, responsibility and resources) from a centralised source to local government units, local community, stakeholders or actors with the intention of enabling them to envision, plan and implement actions in forest management planning framework relevant to generating and sharing benefits from forestry”. The motivation for choosing this definition is based on the integration of stakeholders or actors in the local unit management and not only the local government like the advocate of decentralisation (Ribot 2002a,b, 2004) and Larson (2004).

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<sup>308</sup> Contreras (2003); Larson (2004).

### 4.2.3 Forms of decentralisation

Agrawal & Ostrom (2003) showed that the multidimensionality of decentralisation is reflected in the many terms that refer to it, for example deconcentration, delegation, devolution, deregulation, privatisation, and even denationalisation. According to ITTO (2004), decentralisation<sup>309</sup> of authority, responsibility, finances and accountability, in various forms, is occurring around the world. Larson (2004) argued that most theorists now agree that local participation is essential for effective and sustainable natural resource management.<sup>310</sup> Under this understanding of decentralisation, devolution refers to the transfer of ‘natural resource management to local individuals and institutions located within and out of government,<sup>311</sup> though some people use “devolution” only in reference to direct community transfers. All of these processes occur within the context of national laws that set the limits within which any decentralised or devolved forest management occurs.<sup>312</sup>

However, decentralisation is a word that has been used by different people to mean many different things. It is clear that the underlying concepts regarding the forms which decentralisation takes are broadly similar, but the taxonomic exercise could continue through innumerable divisions, definitions and categorisations.<sup>313</sup> This official power transfer can take two main forms: administrative decentralisation, also known as deconcentration which refers to a transfer to lower-level central government authorities, or to other local authorities who are upwardly accountable to the central government.<sup>314</sup> In contrast, political, or democratic decentralisation refers to the transfer of authority to representative and downwardly accountable actors, such as elected local governments.<sup>315</sup> However, the same word is often used to describe different things.<sup>316</sup> Interpretations vary, and have led to different conceptual frameworks, programs, implementations and implications. Such differences have invited debates and discussion. Agrawal & Ribot (1999) also distinguished two forms of decentralisation: formal and effective democratic decentralisation. They showed on one hand that formal democratic decentralisation refers to power transfers within the state (that is, to local elected or appointed government authorities and line ministry personnel). On other hand

<sup>309</sup> The transfer of rights and assets from the centre to local governments or communities.

<sup>310</sup> Larson (2002); Anderson (2000); Gibson et al. (2005), Larson (2004).

<sup>311</sup> Larson (2004).

<sup>312</sup> Larson (2004).

<sup>313</sup> Ahmed & Mbwambo (2004).

<sup>314</sup> Ribot (2002 a,b).

<sup>315</sup> Larson (2004).

<sup>316</sup> Agrawal & Ribot (1999).

they argued that effective democratic decentralisation refers to the transfer of power to any authority who is accountable to the population. According to them, formal decentralisation should be more likely to result in effective decentralisation than other forms since some accountability mechanisms are likely to be built into local government systems. But here, this working paper adopts three main elements of decentralisation relevant for Congo basin region: deconcentration (administrative), political, fiscal.<sup>317</sup>

#### **4.2.3.1 Administrative decentralisation**

Administrative decentralisation (or deconcentration) is said to occur when powers are devolved to appointees of the central government.<sup>318</sup> Ribot (2002b) stated in the same view that deconcentration (redeployment of the state) transfer to lower-level or local branches of the central government, such as prefects, administrators, or local technical line-ministry agents.<sup>319</sup> Agrawal & Ribot (2000) argued that these upwardly accountable bodies are local administrative extensions of the central state and that their primary responsibility is to central government. In this respect, it is considered by Ribot 2002b and Larson (2004) to be the weaker form of decentralisation because the downward accountability from which many benefits are expected is not as well established as in democratic forms of decentralisation. Larson (2004) showed additionally in the same view that though the definition of decentralisation does not say anything about the way power transfers occur, it implies and is often conceptualised by policymakers as a top-down process. The term deconcentration is thus used when powers are transferred to lower level actors who are accountable to their superiors in a hierarchy.<sup>320</sup> He (Larson (2004)) noted also that one may have lower level appointed and/or elected members and yet fail to achieve a democratic decentralisation if elected or appointed leaders are still upwardly accountable. But he argued that if efficiency and equity benefits should arise from democratic processes that encourage local authorities to serve the needs and desires of their constituents,<sup>321</sup> then democratic decentralisation should be the most effective form of decentralisation.

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<sup>317</sup> Adapted from Ribot (2002 a,b, 2004); Larson (2004).

<sup>318</sup> Agrawal & Ribot (2002).

<sup>319</sup> See also Agrawal & Ribot (2000)

<sup>320</sup> Agrawal & Ribot (2000); Ahmed & Mbwambo (2004).

<sup>321</sup> Smoke (2000); Ahmed & Mbwambo (2004).

#### 4.2.3.2 Democratic decentralisation

Ribot (2002b) and Larson (2004) stated that the political decentralisation is different from deconcentration since powers in this case are devolved to actors or institutions that are accountable<sup>322</sup> to the population in their jurisdiction. In other words, democratic<sup>323</sup> decentralisation occurs when powers and resources are transferred to authorities representative and accountable to local actors (government)<sup>324</sup> who have an autonomous, discretionary decision-making sphere to better discern and make decisions that are significant to the lives, needs and aspirations of local residents.<sup>325</sup> These two authors showed that elections are seen as the mechanism that ensures accountability in political decentralisation. Larson (2004) provided a schematic designed to classify reforms where transfers to elected local government, local administrative bodies, NGOs, community groups, customary authorities, or private corporations and individuals take place. He showed that democratic decentralisation is therefore according to Larson (2004) the yardstick against which power transfers are measured. Ribot (2002,ab) argued that democratic decentralisation is not only challenged by privatisation and civil society development approaches, but it is also faced with resistance from central administration. The reasons he provided were that democratic decentralisation threatens entrenched patronage relations enjoyed by the highest-level central officials, as well as by local merchants, local bureaucrats, and front-line forestry agents. It threatens powerful, often urban-based commercial interests who fear losing access to productive resources. It threatens the roles of local elites, traditional authorities, and government administrators already present in the local arena. Therefore as concluded by Ribot (2002b) democratic decentralisation is however rarely implemented; substantial decision-making power, resources and benefits from forests are still centralised.

In this context, Kaimowitz & Ribot (2002) point out that the aim of democratic decentralisation is to improve equitable natural resource management through increase public participation in local decision-making and the as theory indicates, the greatest benefits which can be derived from it. It is an institutionalised form of the participatory approach. It may also

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<sup>322</sup> Adopted from Ribot (2002b) accountability means defined as counter powers - that is, any power that balances or puts a check on the power of other power holders. It is constituted by the set of mechanisms and sanctions that can be used to assure policy outcomes are as consistent with local needs, aspirations and the best public interest as policymakers can make them

<sup>323</sup> Adopted from Ribot (2002b) democratic means substantively refers to the accountability of leaders to the people

<sup>324</sup> These are typically elected local governments.

<sup>325</sup> Ribot (2002 a,b); Larson (2004); Agrawal & Ribot (1999).

improve public control on natural resources as well as to promote local democracy.<sup>326</sup> Mamdani (1996)<sup>327</sup> showed there are two reasons why natural resource management is particularly well suited for reinforcing representative local authorities. The first one is the great variability of natural resources which privileges certain kinds of local knowledge over outside “expert” knowledge. Harnessing this local knowledge requires greater local discretion in decision-making over natural resources so that local people can incorporate this knowledge into decision-making processes. He showed that the exercise of such discretion is an essential element of democracy. The second reason is that natural resources can support local authorities to be vested with substantive powers. Thus, natural resources can help local authorities generate revenue through taxes and fees and lucrative activities, thereby enabling the provision of subsistence goods that are essential to local people and their livelihoods. He argued that natural resources have the potential to strengthen, legitimise, and empower local authorities. So, exercising discretion and substantive powers provide local authorities with a conducive framework to act in the best interest of the local people, giving them reason to engage the local government. He concluded that when government has meaningful powers and is open to influence by the people they represent, local people are transformed from repressed victims into engaged citizens. In this respect, of the primary forms of decentralisation (deconcentration), democratic decentralisation is considered to be stronger. Therefore, Larson (2004) argued in contrast to deconcentration, democratic decentralisation is a political project that should develop effective and responsible state power, construct national identity and citizenship and build the conception of democracy as a social contract for individual freedom and social justice. He showed that market rationality should be replaced with political democratic rationality, and development should build political spaces rather than just competitive spaces, and citizens rather than just consumers.

This working paper focuses primarily on democratic decentralisation, because of the interest of this review. In order to simplify the implementation of the decentralisation process, the UNO (2004) report highlighted some guidelines which recognise that decentralisation takes place in very different contexts and then formulates possible principles or guidelines as a reference for its implementation. They showed that these guidelines must be adapted by each country based on their own national reality:

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<sup>326</sup> See Larson (2004); Ribot (2002a,b); Kaimowitz & Ribot (2002).

<sup>327</sup> See also Larson (2004) and Ribot (2002b).

- a) Establishment of a clear legal and policy framework with a clear allocation of roles, responsibilities and resources, as well as clarity and consistency regarding strategy and implementation;
- b) Decentralisation of powers and responsibilities to districts and municipalities should not proceed arbitrarily but according to a clear set of rules and conditions;
- c) Decentralisation requires accountability at all levels and corresponding multiple accountability mechanisms; elections alone are insufficient;
- d) Decentralisation should recognise, work with and strengthen representative, democratic institutions at all levels;
- e) Decentralisation in the forest sector should not be implemented in isolation from a general national forestry strategy such as national forest programs;
- f) Decentralised forest management should be based not only on controls but also incentives; Rules that cannot be enforced should not be made. The economic costs and benefits of decentralisation are not well quantified. However, they are likely to differ in forest-rich and forest-poor countries;<sup>328</sup>
- g) Decentralisation and the implementation of Non Timber Forest Products should include monitoring and evaluation with clear, specific variables and indicators;
- h) Rights and responsibilities must be accompanied by adequate resources and capacity building;
- i) Decentralisation should be based on transparent horizontal and vertical information flows and dialogue, including across sectors;
- j) Decentralisation should both benefit from as well as enhance social capital, increasing coordination and trust among different levels and sectors;
- k) Local people must have a voice, and decentralisation should take into account livelihoods, ways of life and improving the economic well-being of these people, as well as address inequities such as those relating to gender. Efforts must be made to raise and include the voices of special groups such as women, youth and indigenous people. Collective self determination requires bodies that are representative of and are accountable to local

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<sup>328</sup> Regardless of the underlying motivation for decentralisation, decentralisation processes must be financially sound to be sustainable over a long term. Governments should carefully evaluate direct and opportunity costs, as well as projected benefits, before entering negotiations on the process. Creating and maintaining a favourable climate for investment is essential. Secure land and resource tenure and a stable political environment are important. Among the measures that are required to improve the investment climate are, inter alia: providing adequate opportunities for negotiation and consultation to gain support for decentralisation among all interested parties and then negotiated agreement between all parties on the terms, processes and phrasing; clarifying the roles and responsibilities of the different actors at different levels of government; removing financial disincentives; avoiding excessive fragmentation and developing instruments for re-aggregation, respectively; providing incentives for investment, including new sources of finances for payment for environmental services; and minimising risk.

populations who hold significant functions and powers and promote equitable distribution of benefits. Such powers should include, for example, management and use rights, commercial rights, market access, the right to revenue generation as well as fee collection and intellectual property rights.

Ribot (2002b) also approached the search of solutions for the efficiency of the democratic decentralisation and drawn some recommendations as can be seen below:

- a) Work with local democratic institutions as a first priority. Governments, donors, and NGOs can foster local accountability;
- b) Transfer sufficient and appropriate powers. Governments, donors, NGOs, and the research community should work to develop “environmental subsidiary principles” to guide the transfer of appropriate and sufficient powers to local authorities. Guidelines are also needed to assure an effective separation and balance of executive, legislative, and judiciary powers in the local arena;
- c) Transfer powers so as to secure rights. To encourage local institutions and people to invest in new arrangements and to enable local people to be enfranchised as citizens rather than treated as subjects, governments should use legal means to transfer powers to local authorities. Legal transfers can create an opportunity for local people to be engaged as representatives of their fellow citizens. Transfers made as privileges subject local people to the whims of the allocating agencies and authorities;
- d) Support equity and justice. Central government intervention may be needed for redressing inequities and preventing elite capture of public decision-making processes. The central government must also establish a legal framework for organisational, representative rights, and recourse purposes, so that local people can demand that government assumes its responsibilities, ensure equity, and administer justice;
- e) Establish minimum environmental standards. Governments should shift from a management planning to a minimum –environmental standard approach. Broad minimum standards can facilitate ecologically sound independent local decision making;
- f) Establish fair and accessible adjudication. Governments should establish accessible independent courts, channels of appeal outside government agencies involved in natural resource management, and local dispute resolution mechanisms. Donors and NGOs can also support alternative adjudication mechanisms to supplement official channels instead of replacing them;



- g) Support local civic education. Governments, donors, and NGOs can inform people of their rights, write laws in clear and accessible language, and translate legal texts into local languages, in order to encourage popular engagement and local government responsibility. If meaningful rights exist, it is important for people to know them. Educating local authorities on their rights and responsibilities can also foster responsible local governance;
- h) Give decentralisation time. Judge decentralisation only after it has been implemented for some time. Give it sufficient time to stabilise and bear fruit;
- i) Develop indicators for monitoring and evaluating decentralisation and its impacts. By developing and monitoring indicators of progress in the decentralisation legislation, implementation and impacts can be evaluated, so as to provide necessary feedback that could keep decentralisation initiatives on track. Rigorous research is always needed;

In conclusion, these concepts (democratic decentralisation and deconcentration) and Larson's (2004)<sup>329</sup> argumentation illustrated that though the definition of decentralisation does not say anything about the way power transfers occur. He (Larson (2004) argued that it is implicit and is often perceived by policy makers as a top-down process. However, he stated that participation and democracy are, at least in part (bottom-up) processes. Larson concluded that a development that includes effective poverty alleviation programmes through livelihood strategies and local empowerment should depend on bottom-up processes. This bottom-up approach advocated by Larson (2004) and Ribot (2002b, 2004) and some scholars of the common has also proven to have loopholes, as can be seen in section 4.3, after the study of the dimension of decentralisation.

#### **4.2.4 Dimension of decentralisation**

Many analyses of decentralisation consider the transfer of powers in three sectors to be necessary for success: local actors, powers, and accountability have been presented as essential elements of a framework that can help evaluate the effectiveness of decentralisation.<sup>330</sup> Larson (2004) and Ribot (2002a,b) also suggested, as already mentioned above, the same three distinct dimensions which should underlie all acts of decentralisation. According to them without an understanding of the powers executed by various actors, the domains in which they exercise their powers, and to whom and how they are accountable, it is impossible to learn the extent to which meaningful decentralisation has taken place. Another

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<sup>329</sup> Larson (2004).

<sup>330</sup> See Agrawal & Ribot (1999).

aspect of decentralisation includes fiscal policy, which involves power sharing at administrative and political levels. It is not an analytically distinct type of decentralisation.

#### **4.2.4.1 Actors in Decentralisation**

Notwithstanding the diversity of actors in the local arena who exercise powers over public resources may include according to Larson (2004), Agrawal & Ribot (1999):<sup>331</sup>

- a) Local government units such as appointed or elected local government officials, who have become key interlocutors in the local arena. Larson (2004) and Bigombé (2003) showed that decentralisation should lead to the strengthening of local governments in order to increase participation and democracy, and not simply to create new local interest groups in competition for resources;
- b) NGOs and extension agents are involved in educating local communities, communes, user groups and powerful individuals on decentralisation, thereby facilitating its process. Nevertheless, Larson (2004) showed that the case studies demonstrate that local management strategies are often undermined by current policies, and local participation and accountability mechanisms are often ineffective;
- c) Central government authority, then, is also important for the central government authorities to address problems such as corruption, forest clearing and the externalities of local practices. Mandondo & Mapedza (2003) also argued that central governments can play a crucial supportive role and help overcome mid-level resistance to decentralisation, as long as there are checks on their tendency to amass power;
- d) Forest department support for the process can help make decentralisation work. Larson (2004) showed that open communication and a fluid exchange of information between the different levels of government play an important role in reducing conflicts and building mutual respect and local capacity. For example Larson (2004) presented in national workshops in Guatemala, Honduras and Nicaragua, the relationship between central and local governments which was generally identified as one of the most important issues in forestry decentralisation. He highlighted that forestry offices in Ghana, Nepal and the Philippines provide important information to communities'. Concerning Boscom, he showed that the Boscom project in Guatemala has trained officials of local government forestry departments and helped create dialogue at the national and local levels. The lack

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<sup>331</sup> See also Oyono (2003); Pacheco (2004).

of dialogue promotes the dispersion of efforts.<sup>332</sup> Without clear mechanisms to promote this coordination, however, remains a question of individual will, rather than a political priority.<sup>333</sup> Sarin et al. (2003)<sup>334</sup> pointed out that forest department can be an important help for technical guidance, in handling offenders and facilitating the resolution of boundary issues, but they rarely fulfil this role. Rather, in India, they more often disrupt the effective arrangements that previously existed;<sup>335</sup>

- e) Corporate bodies such as communities, cooperatives, and committees or timber industries become dissatisfied when decentralisation increases insecurity and costs, even though in some cases, they may find it easier to work with local officials. Larson (2004) showed that in Indonesia, industry representatives expressed concern regarding the security of the business environment, because the “rules of the game” were no longer clear, though this is not entirely due to forestry decentralisation but rather broader-scale transition and crisis. They were concerned that central government permits would no longer be recognised locally and/or have legitimacy in concession areas. Ahmed & Bwambo (2004) argued that whereas previously, they needed to establish personal relations with central government officials, but now, they need to cultivate relations with the local elite.<sup>336</sup> Contrarily, Cameroon’s timber companies admitted that they prefer working directly with decentralised structures rather than with administrative authorities and civil servants from the Forestry Ministry “whom they find hard to satisfy and always eager for more money”,<sup>337</sup>
- f) Assistance made by Third-Party Actors, like donor can be key to making decentralisation work. Donor conditionality or pressure often appears to be an important impetus for getting central governments implement some kind of decentralisation (though this may only be superficial),<sup>338</sup> and donor assistance at various levels can play an important role in making it work. In Bolivia, Honduras and Uganda, for example, donor assistance has

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<sup>332</sup> Pacheco (2002, 2004).

<sup>333</sup> Larson (2004).

<sup>334</sup> Sarin et al. (2003) cited by Larson (2004).

<sup>335</sup> A forestry department’s failure to work with local governments, however, is not always simply a question of resistance. It is also a question of capacity. Low capacity, as well as corruption (see Larson (2004); Oyono (2003)) have haunted forest departments in many countries, and the capacities required for managing forests or designing management plans are not the same as those required for training municipal personnel or negotiating with politicians or communities. Forest departments are also often criticised for dealing far too leniently with people accused of forest crimes that have been identified by locals (Sarin et al. (2003) cited by Larson (2004)), hence undermining local initiatives to protect forests.

<sup>336</sup> Ahmed & Bwambo (2004).

<sup>337</sup> Oyono (2004 a,b).

<sup>338</sup> Pacheco (2004).

made it possible for some local governments to be able to exercise their powers effectively.<sup>339</sup> In Bolivia, the local associations that have obtained approval for their forest management plans had received help from the project Bolfor; the Municipal Forest Units were unable to do this on their own accord. In spite of the many problems faced by the NGO project SOS Sahel in Mali, locals are now well trained in forest management activities.<sup>340</sup> In Cameroon, Oyono (2004a,b) found that NGOs can be key to negotiation and reconciliation. Shackleton et al. (2002)<sup>341</sup> concluded that external actors such as NGOs, donors and federations, are key to moving policy and practice toward local interests. Similarly, as quoted by Ribot (2002a), in Brazil, it has been found that creative initiatives are more likely to occur in Amazonian agricultural frontier areas, where there are outside players like NGOs and donor agencies. Where local people do not have the social capital or organisational capacity to make their needs heard, third party actors can be instrumental in loudly expressing those needs for example, in defending the interests of marginalised groups;

- g) Parliamentarians, forest owners, associations, industries, universities and training institutions are undertaking efforts to reform curricula and teaching methods, to with a view of incorporating lessons on decentralisation and new approaches such as community forestry, ecosystem management, process facilitation, etc.<sup>342</sup>

Agrawal & Ribot (1999) showed that each of these actors is typically located in particular relations of accountability and has certain types of powers. These relations depend on the historical, social, and political constitution of the powers of each actor, which may be based on ideology, wealth, heredity, election, appointment or other means. Actors may also be differentiated from each other by their beliefs and objectives, internal structure of their organisation, membership, funding sources and the laws to which they are subject. Actors are positioned at different levels of social action. Indeed, according to Agrawal & Ribot (1999); Ribot (2002a,b, 2004); Larson (2004) decentralisation is about changes in how actors at different levels of political authority exercise their power. Therefore, by definition the actors involved would be located at different levels of action. Thus, consequently, the nature of decentralisation depends, to a significant degree, upon who gets to exercise power, and the accountability relations to which they are subject.

<sup>339</sup> Bazaara (2003); Pacheco (2004); Vallejo (2002).

<sup>340</sup> Kassibo (2002).

<sup>341</sup> Shackleton et al. (2002) cited by Ribot (2002a).

<sup>342</sup> Ribot (2002a).

#### 4.2.4.2 Powers: discretion and subsidiarity

Four broad powers of decision-making can be distinguish as being crucial to understanding decentralisation.<sup>343</sup> They include:

- a) the power to create rules or modify old ones;
- b) the power to make decisions about how a particular resource or opportunity is to be used;
- c) the power to implement and ensure compliance to the new or altered rules;
- c) the power to adjudicate disputes that arise in the effort to create rules and ensure compliance.

Agrawal & Ribot (1999) and Ribot (2002a) argued that enlarged powers of decision-making at lower levels of the political-administrative hierarchy in relation to any of the above four categories constitute some form of decentralisation. These four types of powers correspond to three more familiar categories: legislative (creation of rules), executive (making, implementing, and enforcing of decisions), and judicial (adjudication of disputes). Further, the classical issues of separation of powers and checks and balances that apply to central governments also have their corollaries in the decentralised arena.<sup>344</sup> For any democratic process to prevail, discretionary powers are necessary so that elected authorities can be responsive to their constituents. Unlike mandates, which require local authorities to act on behalf of the mandating agency, discretion enables representatives to act on behalf of their constituents. Local discretion is the basis for any local democratic decision-making.<sup>345</sup> Without discretionary powers, a local government would merely be an administrative extension of a central government. Having discretion is what defines meaningful authority in local democracy. Discretion defines effective decentralisation.<sup>346</sup>

#### 4.2.4.3 Accountability

Ribot (2002a,b) showed in his studies that to choose and build on representative and accountable local institutions have been one of the most important factors for decentralisation. Central ministries are targeting and allocating powers to a variety of local institutions in the name of decentralisation. In fact, an institution is democratic to the degree it is accountable to society. He argued further that accountability of the state to the people defines democracy. In decentralisation, accountability relations are critical for local democratic governance.

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<sup>343</sup> See Larson (2004); Agrawal & Ribot (1999).

<sup>344</sup> Agrawal & Ribot (1999).

<sup>345</sup> Ribot (1995, 2001a,b).

<sup>346</sup> Ribot (2004, 2002); Larson (2004).

Applying accountability measures in forest management or environmental decision making supports a broader culture of democracy. Conversely, applying these measures broadly supports increased democratic and effective environmental decision-making. Agrawal & Ribot (1999) showed that accountability is the exercise of counter power to balance arbitrary action; it is manifested in the ability to sanction.<sup>347</sup> Rulers claim to be responsible for their people; people try to hold them accountable. Accountability is thus the measure of responsibility. Larson (2004) suggested that if powers are decentralised to actors who are not accountable to their constituents, or who are accountable only to themselves or superior authorities within the structure of the government, then decentralisation is not likely to accomplish its stated aims. It is only when constituents come to exercise accountability as a countervailing power that decentralisation is likely to be effective. All modes of accountability are relational.<sup>348</sup>

To evaluate whether local institutional choices will lead to effective decentralisation, the key question to ask is whether the selected institutions represent the interest of the population and whether they are accountable to the populations for whom they are making decisions.<sup>349</sup> Institutions are categorised by whom they are accountable to and often by how they are held accountable. One often calls an institution democratic, if it is accountable through elections. Hence, an institution is democratic to the degree it is accountable to society. For example, among the countries studied by Larson (2004), Ribot (2002b), only India, Mali, Uganda, and Mexico have chosen to strengthen local accountability by admitting independent candidates in local elections. Concerning Burkina Faso, Cameroon, Senegal, South Africa, Zimbabwe, Brazil, Bolivia, Nicaragua, China, Laos, Indonesia, and Vietnam, Ribot (2002b) showed that local elections take place by party list. The elected authorities are often more accountable to their parties than to the local population. He argued that in Bolivia, some council have acted on behalf of local populations in keeping timber concessions out of their forests, while others allowed them to operate locally, despite popular opposition. Additionally he showed that in places where only the party in power has the means to organise candidate lists across the country and where there is no real competition among parties, these systems leave little chance for local populations to choose their own representatives. But even where there are elected local governments, central governments and donors often avoid them in favour of other kinds of local organisations.

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<sup>347</sup> Larson (2004).

<sup>348</sup> Agrawal & Ribot (1999).

<sup>349</sup> Ribot (2002a,b).

### **4.3 Effect of institutional change/decentralisation outcomes or decentralisation in action**

What can explain the success and failure of decentralisation? Has decentralisation reduced poverty in Cameroon or in other developing countries? Can decentralisation promote good governance and persuade politicians to actively halt corruption? This paper aims at exploring and evaluating these questions.

Unfortunately there are many examples of inadequate and unsustainable natural resource management by central governments (centralisation/decentralisation), large private interests from both the developed and developing worlds (privatisation) and local communities themselves (bottom up approach).<sup>350</sup> In developing countries, where governments are often distant from the natural resource reserves and have little means to effectively manage and control natural resources utilisation, e.g. Yaoundé, the capital of Cameroon is very far from most forest concessions. In some cases, natural resources reserves (e.g. production forest) exist only on paper, having long ago been exploited and converted into other land uses. Perhaps, because of these failures, decentralisation has been viewed as a promising way of achieving more sustainable natural resource use and management. Decentralisation in general, and its usual accompanying concepts like participation and co-management, hold out prospects of increased proximity to clients, local ownership, reduced transaction costs, increased equity, and enhanced sustainability.<sup>351</sup> It is also envisioned to improve management, accountability, agricultural and economic productivity, and cost recovery.<sup>352</sup> Brown et al. (2005),<sup>353</sup> while discussing the rationale for community involvement in natural resources utilisation and management, refers to proximity, impact, local livelihoods, capacity, equity, cost-effectiveness, adaptation and development philosophy as key elements.<sup>354</sup> According to a count conducted during a recent workshop on decentralisation in the forest sector,<sup>355</sup> as already indicated above, up to 60 countries have experimented with decentralised approaches in recent years. Larson (2004) showed that even where forest sector decentralisation is not part of national policy, local governments and local people often manage local forest resources, with or without formal mandates to do so. His arguments are based on the

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<sup>350</sup> For more see the “Tragedy of the common and anti-common” as well as the Common Pools Resources approach developed in the section 3.2.

<sup>351</sup> Van de Sand (19979 cited by Brown et al. (2005).

<sup>352</sup> Brown et al. (2005).

<sup>353</sup> Brown et al. (2005).

<sup>354</sup> See also UNCDF (2000).

<sup>355</sup> See TFU 4/2 and also 7 p. of this edition in ITTO (2004).

participants' view at the workshop that concluded that a form of decentralisation that truly empowers local communities or even local governments has not yet been adopted in many countries. However, Ahmed & Mbwambo (2004) showed that, decentralisation as a means to improve resources management and promote sustainability, has had a great number of adherents over the past decade or so. To many, it is a less naive form of participation that recognises political and administrative realities, and moves beyond the isolated, small-scale, success of some participatory rural development projects. Furthermore, it is important to note that the concepts and theories of decentralisation have also been evolving with challenges they face throughout the world. As quoted by Ahmed & Mbwambo (2004), governance Values includes:

- a) Responsiveness and accountability,
- b) Diversity, and
- c) Political participation.

Ahmed & Mbwambo (2004) showed that the first values, responsiveness and accountability, are the most important of these and comprise the political parallel to the argument about efficiency detailed above. Accordingly, one can interrogate oneself whether local people and local governments do really benefit from the on-going decentralisation process of forest management? In fact Larson (2004) highlights that "Local people should be the primary beneficiaries of a decentralization process that promotes greater local decision-making power, equity and democracy".

However, according to Ribot (2002a,b) and Larson (2004) with regards to natural resources, empirical evidence on the democratic decentralisation outcomes has proven difficult to find and the results of the existing policies are highly varied and mixed.<sup>356</sup> According to ITTO (2004) decentralisation can produce sustainable environmental benefits under the right circumstances, but it can also lead to significant environmental problems. In their studies, Larson & Ribot (2004) discussed decentralisation in its broader perspectives and examine case studies to determine whether decentralisation is effective in bringing about sustainable use and conservation of natural resources or otherwise. The next sections will focus mainly on the examination of some positive or optimistic and negative or pessimistic outcomes of decentralisation. Within this frame, this working report examines cases from a subset of the countries whose decentralisations are considered the most advanced according to Ribot (2002a,b) and Larson (2004): New Zealand, Brazil, China, Bolivia, Cameroon, India, and

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<sup>356</sup> Larson & Ribot (2004); Ribot (2004).



Indonesia. A look at the Cameroonian forest decentralisation process might be valuable in shedding some light on the objective of this thesis. Despite the incompleteness of most decentralisation reforms, the many case studies of reforms underway provide evidence of their potential outcomes and provide insights into how they might be better structured and sequenced.

#### 4.3.1 Positive outcomes of decentralisation

Is decentralisation good for natural resource use and management? Theories tell us that decentralisation can lead to a number of positive outcomes.<sup>357</sup> It should be noted that most of the decentralisation processes are built around the following positive outcomes which include participation;<sup>358</sup> rural development;<sup>359</sup> public service performance;<sup>360</sup> poverty alleviation; relief of fiscal crisis;<sup>361</sup> political and macro-economic stability;<sup>362</sup> and national unity and state building;<sup>363</sup> democratic governance, rural development, environmental benefits, increased yields of timber and non-timber forest products (NTFPs), increased efficiency, equity, inclusion, giving substance to political rights to all stakeholders and especially local population to own and manage their own resources.<sup>364</sup> Most of the local benefits from decentralisation are believed to come from increased popular participation, which in turn, leads to increases in democracy, efficiency and equity.<sup>365</sup> ITTO (2004) assumed there is significant evidence to prove that a form of decentralisation that truly empowers local communities or even local governments has not yet occurred in many countries; Decentralisation has been seen as way to enhance information flows, transparency and accountability at all levels. Anderson & Ostrom (2006) showed that the theoretical advantages of a fully decentralised governance regime for common-pool resources include, among others: local knowledge, inclusion of trustworthy participants, reliance on disaggregated knowledge,

<sup>357</sup> Ribot (2002a,b,2004); Ahmed & Mbwambo (2004); Larson (2004).

<sup>358</sup> Welch (2000).

<sup>359</sup> Uphoff & Esman (1974); Ribot (2002b).

<sup>360</sup> World Bank (2002).

<sup>361</sup> Meinzen-Dick & Knox (1999); Olowu (1999).

<sup>362</sup> World Bank (2002); Prud'homme (2001, 14 p).

<sup>363</sup> Mamdani (1996a); Bazaara (2003).

<sup>364</sup> According to Larson (2004), positive outcomes attributed to decentralisations involving natural resources include the following: a) Local governments have been able to demonstrate capacity and initiative in natural resource management; b) Local people have been empowered to protect their forests from outside commercial interests; c) Local councils and local people have increased their revenues from resource use; d) Marginal and disadvantaged groups have played a greater role in natural resource management and have benefited more from local resources; e) Some cases of sustained forest management have been observed.

<sup>365</sup> Agrawal & Ribot (1999); Ribot (2002 a,b); Ribot (2004); Cook & Manor (1998) cited by Welch (2000); World Bank (1997); Anderson (2000); Kaimowitz & Ribot (2002); ITTO (2004); Ribot 2004.

lower enforcement costs and redundancy.<sup>366</sup> In this respect, local participation can be achieved through local representation of local authorities which can be institutionalised and incorporated into policies. Here, Manin et al. (1999) defined representation as a situation where authorities act in the best interest of the public. Representation as described by Agrawal & Ribot (1999) and Smoke (2000), is a mechanism that makes decentralised institutions effective. Representation is part and parcel of democracy, which can be substantively defined as leadership that is accountable to the people.<sup>367</sup> As quoted by Ahmed & Mbwambo (2004) responsiveness is the relation between signals and outcome while accountability is the relationship between outcomes and sanctions. They argued that a government is responsive, if it adopts policies that are signalled as preferred by citizens and it is accountable, if citizens can sanction it appropriately.<sup>368</sup> This briefly theoretical background stated that empowering local institutions that are not accountable to local population may not produce outcomes that decentralisation promises. Similarly, creating accountable local authorities without powers and abilities will certainly not deliver good outcomes. Some positive examples of decentralisation are discussed in the following.

#### 4.3.1.1 New Zealand

Hobley (1996) and Brown (2005) reported that in New Zealand, where possibly one of the most extreme and far-reaching restructurings of the sector has occurred, the forest service was abolished and separate organisational structures were established. This deconstruction of a monolithic organisation in favour of several discretely functioning units has been one mechanism for coping with the conflicts of multiple objective management engendered within one organisation. The conflict is described in the 1987 Report of the Director-General of

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<sup>366</sup> According to Anderson & Ostrom (2006): a) Local knowledge: Users who have lived with and harvested from a resource system over a long period of time have developed relatively accurate mental models of how the biophysical system itself operates, since the very success of their appropriation efforts depends on such knowledge. They also know others living in the area well and the norms of behaviour that are considered appropriate; b) Inclusion of trustworthy participants: Users can devise rules to increase the probabilities that others are trustworthy and will use reciprocity. This lowers the cost of relying entirely on formal sanctions and paying for extensive guarding; c) Reliance on disaggregated knowledge: Feedback about how the resource system responds to changes in actions of users is provided in a direct and disaggregated way; Better adapted rules: Given the above, users are more likely to craft rules that are better adapted to each of the local common-pool resources than any general system of rules for a larger array of resource systems; Lower enforcement costs: Since local users have to bear the cost of monitoring, they are apt to craft rules that make infractions highly obvious so that monitoring costs are lower. Further, by creating rules that are seen as legitimate, rule conformance will tend to be higher; Redundancy: The probability of failure throughout a large region is greatly reduced by the establishment of parallel systems of rule making, interpretation, and enforcement. While some groups may fail to govern successfully, others do so that the more drastic costs of failure of a centralised unit over a large terrain are offset by other local successes.

<sup>367</sup> Manin et al. (1999).

<sup>368</sup> Manin et al. (1999).

Forests: The major reasons which led to the restructuring of the New Zealand Forest Service were the inability to provide a transparent accountability for the mix of functions performed by the department and to perceive conflicts of interest between those functions.<sup>369</sup> By identifying and separating these objectives and setting up distinct organisations, each with primary responsibility for a major objective, conflicts become public (i.e. inter-departmental wrangling is more visible than intra-departmental disputes). Demarcation of territorial responsibility, and therefore also accountability, is easier to attribute. Thus the advisory and regulatory functions have become the responsibility of the Ministry of Forestry. Conservation, a subject that has frequently brought forestry professionals into conflict with environmentalists, and is considered by many to be irreconcilable with the practice of commercial forestry, has been assigned to a Department of Conservation (primarily responsible for natural forest conservation), and a state-owned Forestry Corporation is responsible for commercial and plantation resource-based activities. In addition, the great power base of a forest service, its land, has also been largely privatised. The message that emerges strongly from the New Zealand experience is that there is no blueprint for institutional change: the structure of organisations necessary to meet international, national and local imperatives must evolve from the particular national circumstances. The principle of decentralisation, although global, should not lead to a globally uniform response.<sup>370</sup>

### 4.3.1.2 Kumaon

Ribot (2002a,b,2004) reported that in Kumaon, India, local people became engaged in environmental management when the tools and powers of regulation, the means of regulation, were placed in their hands. Kumaon presents one of the longest-standing cases of decentralised environmental management. After a series of local rebellions against British timber extraction in the forests of Kumaon in the 1930s, the British banned commercial timber extraction and devolved the rights to manage forest use to van panchayats<sup>371</sup>. Through the experiment in Kumaon, the forests have provided livelihoods for more than seventy years. Agrawal & Ribot (1999) also observed that in Kumaon, once the central government created local centres of decision-making and granted them the authority to regulate forests, it became possible to use available information effectively in the service of environmental conservation. The transfer to communities of what Agrawal (2001) called “means of regulation”, such as

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<sup>369</sup> Quoted by Brown (2005).

<sup>370</sup> Hobley (1996).

<sup>371</sup> Elected local forest councils.

rule-making and enforcement, leads to the engagement of local people, along with their knowledge and skills, in the management and use of resources. In addition, Agrawal (2000) argues that communities accomplish local regulation at significantly lower costs than any central government can. It is important to note that in the Kumaon case, local autonomy was limited to the management of non-commercial uses. Much of the environmental stability could be attributed to the timber ban. In this case, the forests were protected from outside commercial loggers as well as from local interests. But would there have been such a success had there been more local autonomy? Would the forests have been in good condition if local activities had not been limited to raising revenue from fodder and dead trees, but had been extended to deriving revenue from timber sales? This is unclear.

Not all communities in the Kumaon Himalaya were able to enforce forest management regulations. Agrawal (2001) observed that the failure of some of the elected forest councils to enforce forest-related rules is most evident when villagers do not have sufficient forests under their control, when villages are very small or very large, when levels of migration from specific villages to the plains are very high, and when government officials provide little or no support to council members trying to protect the forest. Nevertheless, the seventy-year history of decentralisation in Kumaon demonstrates the possibility that local regulatory institutions can manage resources successfully.<sup>372</sup> In Kumaon, India, and other areas where the local elected Van Panchayats manage forests, forests are in very good condition.<sup>373</sup> Some are even in better condition than those of the forest department.<sup>374</sup> In addition to being in good condition, they have assured the livelihoods of the local people for over 60 year's.<sup>375</sup>

Ribot (2002a,b) also shows that in India, elected forest councils have an important autonomous decision-making space with a set of minimum standards by region.<sup>376</sup> There has been persistence of state control over local people in taking decisions that displace species valued locally in reforestation program. Funding from outside created jealousy, division and inequities among villages that received benefits and those that did not. Forestry officials are more interested in promoting projects that allowed them to control larger budgets rather than cost-effective, community-based methods for improving forest quality. The same control

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<sup>372</sup> Agrawal (2001).

<sup>373</sup> Agrawal (2002).

<sup>374</sup> Sarin et al. (2003) cited by Agrawal (2002).

<sup>375</sup> Agrawal (2002).

<sup>376</sup> They are rules and limits established by the central government, such as prohibitions on clear felling, limits on the amount of fines and the need to get a permission for the sale of certain products.

Village Control Committees have arbitrary powers and are unaccountable. Larson (2004) however maintains that exceptions do exist.. In the Indian state of Madhya Pradesh, well-stocked forests were also made available for Joint Forest Management.<sup>377</sup> In the state of Acre in Brazil, rubbertappers obtained access to high-quality forests, probably due to the pressure they exerted on the government, distance from markets make them less commercially attractive though.<sup>378</sup> In Honduras, local governments can log their ejidos, which account for approximately 30 percent of the country's forests, pending forestry institute approval of a management plan. Nevertheless, there is a perception that ejido forests are more degraded than national forests.<sup>379</sup> Local governments in Indonesia would appear to have the most substantial control over commercial forests of all the countries studied. In other cases, such as Yunnan, China, where local authorities were given new powers over forest resources in the past, there was also a dramatic increase in deforestation.<sup>380</sup> But this increase turned out to be temporary, and the trend reversed. Analysis suggests the increase was due to tenure insecurity and the fear that the rights to manage forests would again be taken away.<sup>381</sup>

Larson (2004) also observed the positive social effects of decentralisation policies when they seek to empower local people and when those receiving powers are accountable to local people. In Bolivia's decentralisation, local people now have legal and secure access to forest resources, and the role of local municipal forestry offices has been determinant in this process.<sup>382</sup> Local governments also have greater resources than before, through both government transfers and the re-distribution of forestry funds. Local groups with access to forest resources have greater negotiating capacity in the absence of landowners and concessionaires.<sup>383</sup> Larson (2004) argued that in other countries too, local groups now have greater legitimacy, status and visibility and are able to attract outside resources. He showed that indigenous and peasant interests are taken into account where these actors participate in local government<sup>384</sup> or where personal or political ideologies are based on support for these sectors. Concerning China, Larson (2004) said that incomes are high and forests are well-managed where village committees have managed resources accountably and responsibly. Creative solutions have provided positive social outcomes in Uganda, such as organising

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<sup>377</sup> Sarin et al. (2003) cited by Agrawal (2002).

<sup>378</sup> Agrawal (2002).

<sup>379</sup> Kaimowitz & Ribot (2002).

<sup>380</sup> Larson (2004).

<sup>381</sup> Larson (2004).

<sup>382</sup> See also Pacheco (2004).

<sup>383</sup> Pacheco (2004).

<sup>384</sup> See also Larson (2003b); Pacheco (2004).

locals to manage resource exploitation and improve their incomes, then taxing them to benefit the municipality as a whole.<sup>385</sup> Even in Indonesia, where increased local authority has clearly had detrimental effects on forests, local people have been able to derive income from forests for the first time in 30 years. At the same time, those who had capital had mostly benefited from this.<sup>386</sup> Still, even local entrepreneurs, unlike outside logging companies in the past, are under social pressure to contribute to local projects.<sup>387</sup> In India, a process of explicit political decentralisation is enshrined in the Panchayati Raj system. However, several commentators have noted that, although the rhetoric points to lower-level decision-making, in actual fact with Panchayati Raj, the power of decision-taking remains concentrated and centralised in the political and administrative hierarchies, though in form it seems dispersed through the various organs of local self-government.<sup>388</sup> Although this comment was made some 25 years ago, it is still considered to be the case in most states where the Panchayat system has not decentralised control. Control is still mainly vested in the line agencies, and it is the relationship between the agents of the state and local people that determine where power is maintained: Officials are seen and see themselves as dispensers of favours. It is widely assumed that if an official wishes to do something for you, he can, and the problem is how to make him do it. If you fail, it is because you do not have enough influence or have not paid enough money.<sup>389</sup> Ribot (2002b) showed that in Kumaon, India, decentralised democratic authorities have sustainably managed forests for over 70 years. In Nicaragua and Bolivia, forest management increased local revenues and have also been generated through environmental decentralisations in Zimbabwe, India, Indonesia, Bolivia, Nicaragua, and Cameroon.

#### 4.3.2 Insufficient outcomes of decentralisation

A call for the devolution of power to the local level has been qualified to be pervasive across the international community with recognising the central role of local users of resources in management by the World Bank.<sup>390</sup> But, one question arises up, how effective has this devolution been. Since much of the experience gained with the implementation of new forms of forestry is relatively recent, it is perhaps too soon to be able to pronounce definitively on

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<sup>385</sup> Bazaara (2003).

<sup>386</sup> Resosudarmo (2002).

<sup>387</sup> Though these benefits are not sustainable at the current rate of extraction.

<sup>388</sup> quoted by Wade (1987).

<sup>389</sup> Wade (1987).

<sup>390</sup> WB (1997, 2002).

their success or otherwise.<sup>391</sup> However, early indications do suggest that rhetoric and reality remain far apart. In this respect, case studies and literature on decentralisation reforms provide valuable negative effects of decentralisation and lessons on how to improve institutional arrangements and outcomes.<sup>392</sup> In many instances around the world, decentralisation reforms do not attend to these following elements:

- a) creating a realm of local discretionary powers under representative authorities; Establishing, sustaining, and scaling up arrangements;<sup>393</sup>
- b) a clear line of accountability from decision makers to the local population;
- c) plurality of local institutions, such as committees, associations, NGOs, and customary authorities;<sup>394</sup>
- d) organising the governance of resource by local users as well as the complexity of the task involved in designing rules, some of them will not organise;<sup>395</sup>
- e) limits of a highly decentralised system;<sup>396</sup>
- f) secure mechanisms of power transfer;<sup>397</sup>

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<sup>391</sup> Larson (2004); Ribot (2002a,b, 2004); Oyono (2002a,b, 2004 a,b); Bigombe (2003); Hobley (1996); Ostrom (1998); Agrawal & Ribot (1999).

<sup>392</sup> Larson (2004); Ribot (2002a,b, 2004); Oyono (2002a,b, 2004 a,b); Bigombe (2003); Hobley (1996); Ostrom (1998); Agrawal & Ribot (1999).

<sup>393</sup> Instead of transferring lucrative opportunities or powers that would enable local authorities to make decisions over the disposition and use of forests, central authorities often transfer burdens of management with little or no funding (increased vulnerability of local people). This situation brought the delegitimation of fledgling local democracies by failing to give them discretionary powers and by creating competition when public resources are privatised or managed through donor-led participatory processes (Larson (2004)).

<sup>394</sup> Such proliferation of institutions that are unaccountable to representative authorities may be a formula for elite capture; in fact, publicly accountable integrated decision-making has to be established.

<sup>395</sup> Specifically, considerable conflicting among users along multiple dimensions, lack of leadership, and fear of having their efforts overturned by outside authorities; some do not survive more than a few months. Others are dominated by local elites who divert communal resources to achieve their own goals at the expense of others. In some cases, local resources may be almost completely destroyed before local remedial actions are taken (Blomquist (1992)).

<sup>396</sup> Among the limits of a highly decentralised system are: conflict amongst users (without access to an external set of conflict resolution mechanism, conflict within and across common-pool resource system can escalate and provoke physical violence. Two or more groups may claim the same territory and may continue to make raids on one another over a very long period of time); Inability to cope with larger scale CPRs (without access to some larger scale jurisdiction, local users may have substantial difficulties regulating only a part of a larger scale common pool resource); limited access to scientific information (while time and place information may be exclusively developed and used, local groups may not have access to scientific knowledge concerning the type of resource system involved), inappropriate discrimination (the use of identity tags is frequently an essential method for increasing the level of trust and rule conformance. Tags based on ascribed characteristics can, however, be the basis of excluding some individuals from access to sources of productive endeavour that has nothing to do with their trustworthiness), stagnation (where local ecological systems are characterised by considerable variance, experimentation can produce severe and unexpected results leading users to cling to systems that have worked relatively well in the past and stopped innovating long before they had developed rules likely to lead to better outcomes), local tyrannies (not all self-organised resource governance systems will be organised democratically or rely on the input of most users. Some will be dominated by a local leader, or an elite who only change rules that they think will be of further advantage to them) (Blomquist (1992); Larson (2004)).

<sup>397</sup> According to Larson (2004), when decisions and responsibilities are transferred, they are usually accompanied by excessive oversight. Most powers are also transferred through insecure mechanisms and can therefore be easily taken back by central agents. Such insecure transfers are a formula for manipulation from

- g) elected local authorities as executors of local interest;<sup>398</sup>
- h) balance of the local elites, traditional authorities and government administrators power with the local users in the local arena.

In this respect, according to Ribot (2002 a,b, 2004); Hobley (1996); Larson (2002); Agrawal & Ribot (1999) decentralisation have more insufficient outcomes in most cases. In Senegal, responsibilities in forest management were devolved to local elected councils without devolving access to the related commercial profits. In Burkina Faso, powers to cut, sell and manage forests have been devolved to private project-based committees, rather than to representative bodies. In Zimbabwe's campfire program, powers were transferred to District Development Committees who were largely under the control of central government. In Bolivia, since 1990, municipalities have given right to 20% of the national forest.<sup>399</sup> Areas may be assigned to local associations. Both forest area and the associations must be approved by the central government's long and bureaucratic process. Municipalities are rather rule followers than rule makers as described by Larson (2004). Granting of indigenous territories<sup>400</sup> but low benefits have been made by local people. Disciplinary mechanisms are not always objective.<sup>401</sup> In Nepal, one can point to projects that view decentralisation as being accomplished simply by directing a stream of monetary benefits toward a group of resource users rather than attempting to create institutions that allow durable decision-making powers to local authorities.<sup>402</sup> Bazaara (2003)<sup>403</sup> showed that Uganda's Forest Service transferred several forests to the Bunyoro-Kitara Kingdom in the district of Masindi. Following the transfer, these forests were poorly managed. The management trust set up by the king was accused of mismanagement for allowing increased pit-sawing. Bazaara (2003) stated that the Kingdom sold standing trees without undertaking an inventory to establish the volume of wood. This had partly contributed to the current over-exploitation of trees in kingdom forests. In this respect, he concluded that the kingdom officials refused to allow field extension staff

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above. In addition, powers transferred to local authorities are often limited to small cordoned-off areas while the majority of forests remain under the control of the central government or are privatised. Presently, insufficient and inappropriate powers turn most decentralisation reforms into charades;

<sup>398</sup> However Elected local authorities often become administrators of central mandates rather than executors of local interest. Such approaches undermine the core tenets of decentralisation.

<sup>399</sup> The municipal forest reserves are settled in areas that are not currently claimed by anyone else.

<sup>400</sup> Indigenous communities have gained the rights to exclusive access to their forest resources within their territories. However, for their commercial exploitation, Forest Management Plans following some regulations approved by the forest service must be developed. Rarely, local people fulfilled the conditions to formulate and implement such plans.

<sup>401</sup> Mayors can be dismissed annually by the council through constructive censure for poor performance; their dismissal is often political and not based on performance at all

<sup>402</sup> Agrawal & Ribot (1999).

<sup>403</sup> See also Ribot (2002b).



to access their forests and even issued their own licenses for harvested timber, which created a lot of confusion in the department. Larson (2004) also asserted that in many instances, it is local elites rather than the most vulnerable that capture decentralised power. They (local elites) utilise this power to repress local minorities including women and other marginal groups. They (elites) manage the resources to derive most of the benefits of decentralisation reforms for themselves.<sup>404</sup> This fact is in contrast to the objective of decentralisation which is to enable all members of society to participate in decision making. World Bank (2000)<sup>405</sup> showed that conceding power to local governments is no guarantee that all local interest groups will be represented in local politics. It may simply mean that power is transferred from national to local elites. Elite groups were observed to have captured the benefits of decentralisation efforts for their own use in Bolivia, Brazil, India, Indonesia, Mali, Mexico, Nicaragua, Senegal, Uganda, Zimbabwe and including Cameroon. In Uganda, Larson (2004) argued that it is expensive to run for election under the current system; therefore, leaders are members of elite groups'. Concerning Cameroon, he showed that members of the elite have been able to capture forest resources under new community-based forestry laws. By fronting fictive elite members of society may be favoured because they are more able to take advantage of opportunities. In the same view Ribot (2002b) argued that in Cameroon, chiefs and management committee members are colluding to establish themselves as new "forestry elite." He (Ribot 2002b) found that in Indonesia and Cameroon, local people are being used as proxies for outside commercial interests to gain access to timber.

Furthermore, Larson (2004), Ribot (2002) stated that decentralisations changed the distribution of powers in complex ways, creating new winners and losers. They showed that violence among resource users has been reported within decentralisation efforts in Indonesia, Mali, and Cameroon. Concerning Mali, they highlighted that conflict among farmers and pastoralists has reportedly increased, but it is not clear that this increase is due to decentralisation or to other changes in land occupation and herd management. Larson (2004) argued that domination by elite may not be all bad. After all, the local elite are required to fight for the success of local government systems, they bring resources, knowledge and networks that make these systems become fully operational and effective. Larson (2004) highlighted that most current choices are not enfranchising communities to manage their own resources and development. They are not providing the basic institutional infrastructure, the political-administrative environment that would enable demand-driven democratic natural

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<sup>404</sup> Larson (2004).

<sup>405</sup> See also quoted by Larson (2004); Ribot (2002b).

resource management. Most institutions currently being chosen to receive natural resource management powers are not accountable to the local population as a whole.

Decentralisation also threatens entrenched patronage patterns from the highest level of central government to the front-line park rangers and forestry agents that are part of its implementation. It threatens powerful, often urban-based commercial interests who fear losing access to productive resources. Local governments in Indonesia would appear to have the most substantial control over commercial forests of all of the countries studied. In 1999, local governments were granted the right to authorise one year small-scale logging permits to nationals for up to 100-hectare areas, though this right was then suspended.<sup>406</sup> Resosudarmo (2002) highlighted that a decree in year 2000 established the right of regency leaders to grant permits of up to 50,000 hectares. At the same time, Larson (2004) found that the combination of laws and decrees is quite confusing and contradictory. He argued that the Forest Department has sought to maintain control through various loopholes, such as excluding the substantial area already licensed, maintaining the right to control all pending applications and promoting a controversial plan to make large areas available to state-owned companies'. At the same time, Resosudarmo (2002) showed that the state establishes all criteria and standards: classifying forests; and setting criteria and standards for all forest tariffs, forest products and forest areas. Kassibo (2002), Resosudarmo (2002) showed that whether local governments hold legal powers over local forest management or not, they often make decisions regarding forest resources. This may include imposing taxes or fees on law violation, authorising or prohibiting logging, and promoting reforestation. This does not mean that laws are not important. In fact, the failure to uphold the law may relate directly to the omission of local people from legally receiving benefits. Also, legal authority to manage forests may generate its own dynamic. They argued that in several countries, such as Indonesia and Mali, local governments have taken initiative based on their expectations of future legal rights. In addition, Larson (2004) wrote that NGOs and donors may begin to direct investments toward building local capacity in accord with new legal competencies.

Larson (2004) stated that some decentralisation reforms have been associated with environmental problems. In Cameroon, Indonesia, and Uganda, transferring exploitation rights to local bodies has reportedly resulted in overexploitation of timber, primarily due to the need for income for local governments and local people. There is no reason to expect that

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<sup>406</sup> Many local governments continued to grant permits anyway.

local authorities will not convert natural wealth into financial wealth, especially where cash is in short supply and is viewed as more valuable than standing forests. Communities may act like private corporations when benefits far outweigh perceived immediate costs.<sup>407</sup> It is not clear in these cases whether local practices have been any worse for the resource base than the central government's common practice of allocation of commercial concessions. Decentralisation should enable local people to exploit resources for subsistence or money. The question is who decides? Within what management have some social problems, including elite capture and violence, been associated with decentralisation?<sup>408</sup> Ribot (2002b) stated that decentralisations often go wrong when they devolve risks and costs that are too great for local groups. The difficulty of complying with complex management plans and bureaucratic procedures required by the government and the cost of the staffing and equipment needed to carry out management and monitoring requirements may be too great. In Bolivia, the cost of creating land-use plans was beyond the means of small farmers, making it impossible for them to comply with the laws. In Cameroon, the process for community engagement in forest management was too complex for villagers to navigate. Westoby (1987), reflecting on community development practices of the 1960s and '70s, expressed that establishing new institutions often meant the weakening, even the destruction of existing indigenous institutions which ought to have served as the basis for sane and durable development: the family, the clan, the tribe, the village, sundry mutual aid organisations, peasant associations, rural trade unions, marketing and distribution systems and so on. It is disingenuous to define development as characterised by these alternatives, decentralisation or centralisation, local versus central government. This characterisation, together with the contention that grassroots environmental movements are necessarily going to lead to more widespread benefits, has to be carefully evaluated.

Even when legal rights are established on paper, little is usually done to build the capacity to act on those rights. Effective multi-level institutional frameworks are needed for the discussion and negotiation of different rights and interests regarding forest resources. Larson (2004) showed that there are three main arguments that are heard repeatedly to defend retaining centralised control over forest resources: the issue of scale and public goods; low local capacity; and the interference of politics. All of these do, in fact, suggest areas of

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<sup>407</sup> Local youth in Cameroon, for example, have expressed their desire to profit from the forests, citing the fact that previous generations and the government have done so before them, so why shouldn't they.

<sup>408</sup> Ribot (2002a,b, 2004).

concern, yet they are most often used to defend central interests and centralised policies rather than to seek effective, negotiated decentralised alternatives. These spaces allow for participation but not empowerment.

The international community recognises the central role of local users of resources in management.<sup>409</sup> But how effective has this devolution been? Since much of the experience gained with the implementation of new forms of forestry is relatively recent, it is perhaps too soon to be able to definitely pronounce on their success or otherwise. However, early indications do suggest that rhetoric and reality remain far apart. Major donor organisations and international agreements may all subscribe to the following view of the Rio Conference: The pursuit of sustainable development requires a political system that secures effective participation in decision-making. This is best secured by decentralising the management of resources upon which local communities depend, and giving these communities an effective say over the use of these resources. It will also require promoting citizen initiatives, empowering people's organisations, and strengthening local democracy.<sup>410</sup> However, the achievement of such a goal is still distant. The extent to which such principles can and should direct development policy in the forestry sector is still to be questioned. At the root of this rhetoric, there is a real quest for a new world order where actions are assessed in the light of their impact on individuals, and where governments and their agents are held accountable at the most local level. Some would contend that this should be the underlying thrust of the approach;<sup>411</sup> others see it as a means of decreasing the costs of the government and enhancing the participation of private and other sectors.<sup>412</sup> Is it a call for a new democratic structure that allows those at the local level control over their destinies? Furthermore, is forestry an appropriate vehicle through which the existing form of governance can be challenged? Larson (2004) concluded that negative outcomes associated with decentralisation include elite capture and conflict. Many more poor outcomes are associated with incomplete decentralisations and can be found Larson (2004), Hobley (1996), Kassibo (2003), Anderson et al. (2004), Pacheco (2002, 2004); Bazaara (2003); Beneria-Surkin (2003), Ribot (2002a,b).

The arguments surrounding the decentralisation debate involve discussion of the appropriate institutional form to manage forest resources.<sup>413</sup> However, in an atmosphere of increasing

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<sup>409</sup> See recent policy documents of the World Bank (1997, 2002).

<sup>410</sup> Earth-summit (2002); Burger & Mayer (2003); Hobley (1996).

<sup>411</sup> Hobley (1996).

<sup>412</sup> Larson (2004).

<sup>413</sup> Larson (2004), Ribot (2004)

intolerance of bureaucratic ineptitude, there seems little doubt that forest services will lose some of their authority, at least at the margins of their power base on degraded lands. Just as questions are being asked about the role of the state in the regulation and management of natural resources, so too there are questions being asked about the nature of the local organisations being developed by governments and whose interests they represent?<sup>414</sup> In Thailand policies that have encouraged the penetration of the state into regions previously managed by indigenous institutions have had questionable benefits for the majority of the local people. These 'participatory institutions', which purportedly give the village a role in making decisions on rural development, are the facilitators of a paralysing bureaucratisation of village procedure which has replaced the older more informal institutions.<sup>415</sup>

The call for grassroots development also brings into question the conditions under which it is appropriate. As the vast literature on collective action showed<sup>416</sup> that there are many conditions under which collective action has broken down and resources have degraded. The defining features under which such action is appropriate remain elusive in the forest sector, although certain patterns are emerging most particularly those seen in resource-scarce situations, well illustrated in the Middle Hills of Nepal.<sup>417</sup> Hobley (1996) assumed that its vocabulary asks both the private and the public sector to identify their respective client groups and their needs, and to respond with services that will support them. Decentralisation also demands clear identification of stakeholders, placing control and authority with these groups, and requiring government bureaucracies to restructure, to support their clients. The institutional change implied by these approaches is far-reaching. Decentralisation comprises elements of politics (who benefits?), organisation theory (structural changes) and bureaucratic reorientation (changes in tasks, roles, attitudes and behaviour patterns), and the concept cannot be explained by merely looking at one of these elements on its own. The process will be politically dominated, especially since at the implementation level the interplay of politics and administration requires norms to order relationships within the bureaucracy and among the elected representatives.<sup>418</sup> Elements of such changes are still unexplored within the forest sector, although forestry projects charged with facilitating institutional change are now beginning to address these issues. Forest Departments, in common with other government

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<sup>414</sup> Larson (2004).

<sup>415</sup> Larson (2004).

<sup>416</sup> Wade (1987); Ostrom (1990, 1994); Bromley (1992).

<sup>417</sup> See also examples in the African rangelands, Runge (1986, 631 p); Hobley (1996).

<sup>418</sup> Hobley (1996).

agencies across the world, are facing hard questioning concerning their future role in the sector.

#### **4.4.3 An overview of decentralisation in Cameroon**

This overview has been examined and contracted by authors who conducted many case studies about decentralisation in Cameroon particularly and in many other countries all over the world.<sup>419</sup> Historical background of decentralisation process in forest sector goes as far back as the colonial and first-generation post-colonial State. The state was the exclusive proprietor and manager of forest resources.<sup>420</sup> Consequently, there was an upsurge of conflicts over forestry property rights management between interest groups (village communities, NGOs, municipalities, councils, logging companies, forest services and territorial units). Combining this conflict with social and political movements more or less forced the State and its international partners to reform the system. Therefore, the 1994 forestry law set up a new context for the implementation of decentralisation, through fostering participatory management and introducing decentralised forestry taxation. These 1994 reforms were a great innovation in the Central African sub-region making Cameroon the leader amongst the countries of the sub-region. This legal framework also highlights the types and objectives of decentralisation in the forest sector. The two common types of decentralisation include:

- a) Administrative decentralisation (deconcentrated administrative authorities) and
- b) Devolutionary or democratic decentralisation (municipal or local government).

The two main goals behind the process:

- increasing of the funds available to state budget (increasing forest department revenues) and improving general living conditions by reducing poverty in forest areas;
- Rational and sustainable use of forest resources. The 1994 Law and the zoning plan classify forests in Cameroon into two main categories:
  - the permanent forest estate (protected areas and production forest reserves; Council forests);
  - The non-permanent forest estate (Community forest, Private Forest, communal forest etc.).

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<sup>419</sup> Bigombe (2003); ITTO tropical forest update (2004); Larson (2004); Pacheco (2004); Poissonnet (2005); Ribot (2002 a,b, 2004); Oyono (2002a, 2002b); Fomete (2001); Nasi et al. (2006); BFT (2004).

<sup>420</sup> Excessive State control over forestry royalties, impoverishments of local population.

In this context, one is interested in knowing, what the tools of decentralisation in forest management are? In fact the 1994 forest law has set up tree models of decentralised forest management:<sup>421</sup>

a) The decentralised taxation system:

- The Annual Forest royalties (RFA) apply to the Forest Management Unit (FMU  $\leq$  200 000 ha) and sales of standing volume (SSV) ( $\leq$  2500ha) with current rate 1000 FCFA/ha and 2500 FCFA/ha respectively (see Figure 4-1, p. 103). The share reserved for the communities is determined by the finance law: 50 % for the State; 50 % for local municipalities or councils, of which 10% is for the communities neighbouring the forest. Since 1997, amounts involved have grown due to increasing allocation of FMUs. The main goal is to contribute to local development through the provision of social services;
- The 1000 FCFA/m<sup>3</sup> “irregular” tax “Para fisc” (Figure 4-1, p. 103) or “village” taxes” CFA 1000 per cubic meter is levied on the quantity of timber logged in SSV. Introduced by the end of 1996/1997 tax year, it represents a contribution by the loggers to social projects (e.g. roads, schools, etc.) and its terms are laid down in the logger’s conditions of contract, currently in declining due to a decrease in deliverance of SSV.

b) The council forest classified or planted forest to the benefit of the local council, which resulted to the grant of property rights within the Permanent Forest Estate (PFE). This forest is subject to a management plan, supervised by the technical authority. Its logging should contribute to the increase of communal funds. This in turn should contribute to provide social services to local population of the concerned council.

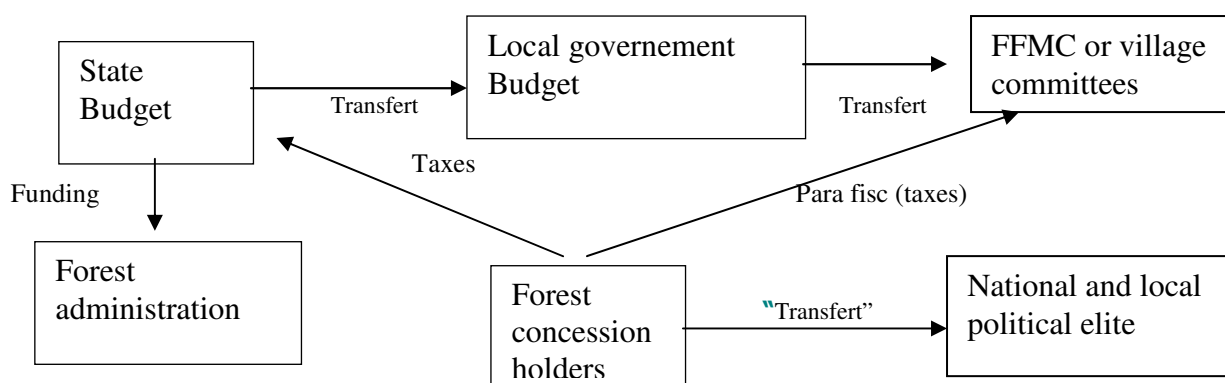
c) The community forest (CF) is an area located in the Non Permanent Forest Estate (NPFE) ( $\leq$  5000ha); subject to an agreement between the village community and forest service. Logging is done on the basis of simple management plan (SPM). CF is seen as a way of securing access to the resource, and secondarily as a means of collecting forestry revenue. A pre-emption right decree (2001) grants to village-community the ability to decide for the type of status they want their forest to have (CF vs. SSV).

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<sup>421</sup> See Nguiffo & Djeukam (2002a,b); Fomété 2001; Poissonnet 2005.

### Who are the actors and who is benefiting? Actor's strategies and patrimonialistic management

Ribot (2002b) showed that much of the outcomes of decentralisation depend on the type of powers that are transferred to lower levels, and on who receives such powers. A mosaic of actors are involved in the decentralisation process in Cameroon, each of them with their own interests, for example, states central public administration (forest service), rural councils, forestry fee management committees (FFMC) or Village-committees (VC), local administration (governors, district officials...), private sector (logging companies), national and local political elite. The Figure 4-1 below displays the interaction between actors involved in the decentralisation.



taxes: e.g. annual forest royalties (RFA)

forestry fee management committees (FFMC)

Figure 4-1 financial flows<sup>422</sup>

In the following the author presented a brief summary on the decentralisation situation in Cameroon on RFA, forest council and about CF.<sup>423</sup>

#### a) About RFA

- Devolution of greater power to the CF and forest council and creation of local decentralised institution, such as FFMC in the financial management;
- FFMC is one step towards re-centralisation (no real implication of the village-representatives in the decision-making process, heterogeneous composition of this new structure);

<sup>422</sup> adapted from Anderson 2000, Fomété 2001.

<sup>423</sup> Adapted from Nguiffo & Djeukam 2002a ; Fomété 2001; Poissonnet 2005.



- Retention of RFA benefits at all steps of the redistribution process from the central power to local actor's level (reduction of the funds available to fight against poverty);
- Financial influence of the Council on local people's representatives (FFMC), which allows the Mayor to maintain his authority and his power;
- Lack of accountability mechanisms: the representatives are not obligatorily accountable to the village communities (lack of disciplinary action of local people in case of abuses or serious ineffectiveness);
- Non-transparency and mis-appropriation in the management of the village's 10%-share of RFA royalties allowing a partly redistribution of RFA to the population through some projects. Financial information's are not always managed transparently;
- Accumulation of a part of transferred powers at the council level, in spite of an effective power devolution (choice of projects, internal conflict management, appointment of FFMC members);
- The division of funds is not seen as fair; The incentive for local actors trying to redress this situation and finding other ways of gaining income from forest resources is much higher (illegal logging) at times the 1000 fcfa/m<sup>3</sup> helps a lot in legitimating illegal logging operations by local people;
- The management of RFA is patrimonialistic management.

### b) About Council forest:

- Relatively low implication of the central administration in the management of the Council Forest; usually restricted to attribution procedures
- Preponderant position of the Mayor as a result of the decentralised of forest management;
- Still little consideration of the concerned population about the decision related to the financial management, yet council forest returns should be contributing to the enhancement of rural livelihood
- The devolution transfer of power is effective, however, focused on the mayor. A local person does not participate in the management of the Council forest, Even though he exerts a levy on the Mayor's re-election (only accountability mechanism)
- For the municipal office, the democratic processes behind establishing management committees in Cameroon's community-forestry schemes has allowed marginalised Baka villagers in Moangué-le-Bosquet to create a niche for themselves in forest management.

- In Cameroon, for example, new forestry laws earmark timber stumpage fees for elected local councils. Promises of decentralisation involving natural resources have also empowered local authorities.

### c) About CF

- Securisation of access to the forest land; devolution of powers to village-communities.
- Maintenance of Central government control over FM through extensive bureaucratic procedures: also as Simple Forest Management Plan, permit for cutting transport and processing, low local capacity
- Forests are usually only devolved to local arenas after they are degraded. The central government retains control over the most lucrative resources
- Weak capacity of the village-communities (financial, technical)
- Superimposition of village-committees (new local decentralized institution) on existing social systems (often source of conflict).
- Funds misappropriation (of FC logging revenues by the village-comm.)
- Village-committees are easily manipulated and co-opted by elites who often have other motivations besides the good of the community
- Forest department lacks willingness to encourage the CF process which does not provide him with substantial benefits (taxes, employment, etc.): strong influence of Elites and NGOs over the local population willingness to demand a CF (for Elites it is a way of direct self-enrichment, NGOs it's a source of funding orchestrated by donors)
- The fewer interactions between technical services and forest communities happen only for the cross-check operations related to the CF boundaries and the designing of the management plan

In general, there are several fundamental problems in process of Cameroon decentralisation. One is the resistance on the part of central governments to give up powers, or the tendency to give them to local entities it can control. Another is the weakness of current electoral processes, as well as other downward accountability mechanisms, to guarantee the representative ness, transparency and accountability of local governments. A third is the failure to recognise decentralisation as a value-laden process for good governance and resource management in the common interest<sup>424</sup> and particularly in the interest of the poorest and most marginalised sectors rather than simply a way to cut costs. Different conceptions of

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<sup>424</sup> Oyono (2002a,b9; Oyono (2004a,b); Nasi et al. (2006).

development lie behind forestry decentralisations: for example, is decentralisation about promoting community forestry or other local institutions that sustain local livelihoods? or is it aimed at increasing the local benefits from commercial logging-or both? Current policies generally provide only meek attempts at either. In the end, however, these are not issues that can be solved by researchers, but rather require national dialogues that negotiate each nation's development vision in each national context, after empowering marginal populations and institutionalising the mechanisms to ensure their effective participation.<sup>425</sup>

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<sup>425</sup> Ribot (2002 a,b); Oyono (2002a, b); Bigombe (2003); Larson (2004); Nasi et al. (2006).

## 5 Conclusion

In the last decades, it seemed that the “tragedy of the commons” was inevitable everywhere. According to the property rights theories and concepts which have been learned and developed during this paper, it could be concluded that forest as a CPR has to be managed and planned as a common property in order to avoid the cost of exclusion or the TAC. However, the need also to avoid the “tragedy of the common”, specifically the externalities or the environmental problem, also has to be taken into account in the process of CPRs management planning. Indeed, most resource policy textbooks presume that appropriators will be led to act individually so as to over harvest from CPRs. Therefore, one question arises: “Is it possible to govern such critical commons as the tropical forest? According to this paper, one should remain guardedly optimistic. In fact, it is important to integrate the institution within the economics for securing the common and it will consist of spending time and effort to create a new set of rules that jointly benefit all those who rely on a resource, whether or not they contribute time and effort to the process of devising regulations. Furthermore, the systematic review performed in this paper has also shown that a wide diversity of adaptive governance systems have been effective stewards of many resources. Scholars who have conducted extensive field researches on locally self-organised institutions for managing CPRs have identified a set of attributes of appropriators that they consider conducive to the evolution of norms, rules, and property rights that improve the probabilities of sustainability of CPRs. As reviewed in this paper, these attributes should also be useful within the forest management planning framework, for designing and implementing forest management plan within the current institutional situation in Cameroon’s tropical forest. This review also shows the limit of the self-organised governance. Some authors like Berkes (2002)<sup>426</sup> also propose another model for the management of the common, essentially based on the co-governance or co-management, or co-property, which is also of great interest to the working paper on institutional governance for forest management planning in tropical forest.

In order to better understand the present legal and institutional governance situation, the decentralisation reform has also been reviewed. The fact that there are both advantages and disadvantages associated with decentralised governance arrangements has been used by some

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<sup>426</sup> See also Berkes (2006).

scholars to argue for the centralisation of natural resource governance. Yet another group of scholars have made similar lists of advantages and disadvantages of centralised governance only to conclude that a decentralised governance structure is the best way of dealing with the perceived failures of centralisation.<sup>427</sup> Anderson & Ostrom (2006) suggested that both views are right to point out the problems as well as opportunities associated with either centralised or decentralised governance approaches. However, according to the UNO (2004), successful decentralisation involves a number of prerequisites including formulation of clear, enabling legal and policy frameworks and comprehensive distribution of this information; integration of the decentralisation process into national forest programs; achievable objectives; clear allocation of roles, responsibilities, resources and accountability; and mechanisms for conflict resolution. Successful decentralisation outcomes have been linked to secure tenure as well as secure fiscal, revenue and taxation powers; equitable access to forest resources; control over decision making, commercial rights and market access; sensitivity to cultural traditions and local knowledge and, where appropriate, recognition of ancestral rights of local communities. There are many questions still to be addressed about the effectiveness of decentralisation as a political tool to ensure devolution of power. In this respect, this review that there are two opposing views of decentralisation in forest management in literature. Critics argue that things are not going to change when municipalities in forested areas receive greater responsibilities. In some cases it could even worsen the situation. But a growing group of supporters argue that decentralisation, with all that it implies for institutionalising social participation, is essential for conserving a healthy forest. Furthermore, decentralisation can be beneficial to local people because it helps involve municipal governments in local development, as well as build social participation and strengthen democracy. Pacheco (2004) who has been working actively on the effects of decentralisation in Latin America found out: “In our research, we found there are some good reasons to support decentralization in Latin America...” Though some few positive results can appear here and there, examples of other countries and that of Cameroon have in common: non-effective transfer of power to the lower level and the persistent hold of the state control over the process (even subtle). In these situations, decentralisation may help to reinforce the power of local elites, who often exploit forest resources and promote deforestation. He showed that “decentralisation by itself is not the answer...” and argued that “other conditions need to be in place to conserve forests and share the benefits of forest resources.” This situation seriously undermines the decentralisation efforts actually implemented worldwide. Instead, there is an emergence of some social categories such as

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<sup>427</sup> Anderson & Ostrom (2006).

political elites. In Cameroon monopolisation of the community forest process or the forest royalties pay generated from the logging activities by elites, authoritarian and opaque management of council forests or forest management units funds and/or payment by political elites are hindrances in achieving a successful decentralisation process of the forest sector, thereby severely jeopardising the expected local democracy, ecological and socio-economic development.

In addition to the many lessons that have been discussed in this paper, there are a few important general findings that should be mentioned or emphasised here. Thus according to the two broad concept (property rights and decentralisation) reviews in this paper, the following statements have been retained for the design of institutional framework for (or) governance for forest management planning, specifically for Congo Basin:<sup>428</sup> Firstly, the Natural resources such as rainforests are sources of tributes of all kinds. Rainforests management should be recognised as a highly conflictive arena when it comes to discussions regarding the distribution of powers and/or property rights over resources. It is also a domain that is particularly vulnerable to corruption. In this respect, the rainforests has to be understood and considered as CPRs; secondly forest management planner should be trained in the institutional framework review in this paper; thirdly, local institutions should be representative and downward accountable: representative and effective institutions should be supported to build greater consensus among the stakeholders at all levels, with particular emphasis on promoting the participation of marginalised groups as well as the conflict management; fourth, multiple accountability mechanisms should be promoted and developed; fifth, capacity building of local decentralised institutions instead of re-centralisation; seventh, the institutional framework proposed for the planning design to avoid the negative effect of decentralisation management of forest resources which is rather contributing to subtle imposition of the central administration decision, thus precluding sustainable livelihood options. In fact, in countries with transitional economies, local people do not benefit at all or at least very little from decentralisation of the forestry sector; finally, the monitoring of logging and management plans and enforcement of forest management which should be improved by the establishment of effective institution for planning design.

The author suggested that this review on the institutional framework of the forest planning can promote the effective implementation of the forest management plan and highlighted that

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<sup>428</sup> This proposition has been design in the light of Larson (2004); Ribot (2002a,b); Pacheco (2004), Oyono (2002a,b), Bigombé (2003).

there is need to recognise the social, economic and political interests of each set of actors and thus contributes to sustainable forest management. In other words, the forest management plan must promote profit-sharing agreement forest resources management between all the actors involved specifically for local communities who depend on them. The forest has to be seen as CPRs. Finally, the institutional aspect of forest planning should promote better management planning of forest resources and natural resources conservation. However, all these conditions are practically difficult to be together and will be addressed in another study: the design of an institutional governance framework for forest planning.

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## 7 Annex1

EU Parent Company	Central African Country/ies of Operation	Logging Subsidiaries in Country of Operation	Concessions (ha)
<b>Alpi Italy</b> 🚧🔧	Cameroon	Alpicam	128,449
		Grumcan	85,812
<b>Basso Italy</b> 🚧🔧	Gabon	BTIG	450,000
<b>Bolloré France</b> 🚧🔧🔧	Cameroon	Forestière de Campo (HFC)	162,790
		SIBAF	134,765
<b>Bruynzeel The Netherlands</b> 🚧🔧	Congo (Brazzaville)	Boplac (43.5%)	500,000
<b>Danzer Germany</b> 🚧🔧🔧	Democratic Republic of Congo	Siforco	2,900,000
	Congo (Brazzaville)	UFA Est/SCBO	1,300,000
<b>DLH Nordisk Denmark</b> 🚧🔧🔧🔧	Congo (Brazzaville)	Boplac (43.5%)	500,000
<b>Feldmeyer Germany</b> 🚧🔧🔧	Congo (Brazzaville)	CIB	1,150,000
<b>Interwood France</b> 🚧🔧	Cameroon	Coron	136,760
	Gabon	Interwood Cameroun SHM	not known 300,000 (estimate)
<b>Pasquet France</b> 🚧🔧	Cameroon	R. Pallisco	-
<b>Rougier France</b> 🚧🔧🔧	Cameroon	Cambois	145,176
	Congo (Brazzaville)	SFID	68,292
	Gabon	Mokabi Rougier Gabon	370,000 700,000
<b>SAFI Spain</b> 🚧🔧	Equatorial Guinea		30,000
<b>Sonae Portugal</b> 🚧🔧	Gabon	Leroy Gabon	654,000
<b>Thanry France</b> 🚧🔧	Cameroon	CFC	215,000
		J Prenant	54,457
		Propalm	125,490
		SAB	60,838
		SEBC	223,130
	Central African Republic	Thanry Centrafrique	228,000
	Gabon	Sofokad CEB EFG	131,200 505,000 100,000
<b>Vasto Legno Italy</b> 🚧🔧	Cameroon	SEBAC	88,796
		SEFAC	62,597
<b>Wijma The Netherlands</b> 🚧🔧	Cameroon	Wijma (Douala) SARL	-
<b>Wonnemann Germany</b> 🚧🔧	Congo (Brazzaville)	SOCOBOIS	Not known
<b>TOTAL</b>			<b>11,010,552</b>

**Key** 🚧 Logging (including as subcontractor) 🔧 Processing 🚚 Transport 💰 Trade in timber

source: FM (2001)

Figure 7-1 EU-based forest companies with logging operations in Central Africa

	Undisturbed forests (in million ha)	Disturbed forests (in million ha)	Average production 1990- 95 (in million m <sup>3</sup> )	Production as a percentage of sustainable yield
Africa	59.6	112.9	17.1	174%
Asia and the Pacific	53.0	91.9	97.6	59%
South America and the Caribbean	42.1	122.5	33.8	141%
TOTAL	154.7	327.3	148.5	91%

Source: FAO (1997) in FAO, 2005

Table 7-2 Production forest areas in 1990 and current levels of roundwood production compared with sustainable yield

