

## **A landscape approach guiding a multiple stakeholder process to find alternatives for illegal chainsaw lumbering in Ghana – enhanced effectiveness or more confusion?**

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### **Introduction**

This short discussion paper aims to respond the question to what extent a landscape approach can be applied to give structure to a multi-stakeholder process (MSP). The case study context in which this question<sup>2</sup> has been posed is the implementation of the EU-funded Tropenbos project: “Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana<sup>3</sup>”. Apart from further explanation of the Tropenbos project in Ghana, two elusive concepts mentioned in the first sentence require elaboration: “landscape approach” and “multi-stakeholder process approach”. This will be done in the sections that follow. Subsequently, the opportunities and constraints of applying a landscape approach in the Ghana project case are analysed followed by a series of observations. The early stage of project implementation (and lack of lessons learned so far) does not allow any conclusions to be drawn. The observations however are considered useful for the further implementation and follow-up of the Tropenbos project.

### **Landscape approach**

#### *Definitions and origin*

The word elusive was used in the previous section to qualify “landscape approaches” as a concept that is interpreted in many variations in the natural resources management discourse. Originating from geography (“a landscape is a concrete part of the earth's surface shaped by uniform structure and same process pattern – Neef, 1967) the word landscape evolved in what became known in landscape ecology, as an approach to study landscapes as spatially heterogeneous geographic areas characterized by diverse interacting patches or ecosystems, ranging from relatively natural terrestrial and aquatic systems such as forests, grasslands and lakes to human-dominated environments including agricultural and urban settings (Turner, 2001). A landscape of landscapes! The approach necessitates the coupling between biophysical and socioeconomic sciences. Key research topics in landscape ecology include ecological flows in landscape mosaics, human land use and land cover change, scaling, relating landscape pattern analysis with ecological processes, and landscape conservation and sustainability (Wu & Hobbs 2002).

Despite the biophysical origin of the concept, its obvious links with human use of the environment has made the thinking behind it of interest to the global discourse on biodiversity conservation and development especially in the international biodiversity conservation and tropical forestry sector to the extent that landscape approaches seem to be hailed as a new management paradigm to achieve sustainability (Special feature of Ecology & Society volume 11/issue 2, especially Frost et al, 2006; Fisher, 2005; Brown, 2005; Sayer 2005). Especially organisations with research and development functions such as IUCN, African Wildlife Foundation and WWF embrace the landscape approach and have considerable influence on other (inter)-national organisations in the fields of conservation and

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<sup>2</sup> The research question has been formulated in the 2008 KB7 research project “Multi Stakeholder Processes in Governance for Sustainability” with as objective to assess the effective use of multi-stakeholder dialogue in societal change processes contributing to sustainable and equitable development. This specific KB7 funded research topic is linked with the DGIS/WUR Partnership funded “Illegal or Incompatible?” Project (2008 - 2010).

<sup>3</sup> In this paper only the Ghana context applies.

development with as result landscape (and seascape) approaches applied in for instance Eastern Africa, Congo Basin, in the Nepali Terai and the Mekong Delta.

In this regard one can interpret this “new” approach as a logical sequence of “failed” approaches of the recent past such as Integrated Conservation and Development Programmes - too biased to conservation; Integrated Natural Resources Management - too much (agricultural) research-biased; the Ecosystem Approach – “how on earth do you manage an ecosystem”, where is the institutional embedding; and Community-based natural Resources Management (CBNRM) programmes<sup>4</sup>. Especially the latter approach was and still is very popular in the international NRM practice. International donors with poverty alleviation mandates perceive this approach as ideal vehicles to achieve win-win situations: nature-based rural development as incentive to conserve the valuable natural resources the development depends on. However, it becomes increasingly clear that achieving win-win situations amidst multiple stakeholders with widely different interests using natural resources that are increasingly becoming scarce as demand for them is not limited to the local level, is very difficult. The conditions for community management options are not determined by the community itself but by the state, an urban elite, international NGOs and donors, the global market. Consensus-based management is not easily achieved. The promises of community approaches to achieve development as well as conservation are not easily turned into reality, so the development cum conservation fraternity is in need of a new narrative.

#### *Landscape approaches and the international environmental NGOs*

The international environmental NGOs have been especially active in promoting landscape thinking in an attempt to find approaches that interlink rural development and biodiversity conservation (“wise use”). This conceptual development can be regarded as a failure of past approaches but there may also be other, more ulterior motives:

- International donors increasingly stop financing “projects” but rather fund sector-wide programmes via budget support mechanisms. The programmes of international conservation NGOs that are financed are increasingly “regional” programmes. NGO such as IUCN, TNC, WCS and WWF have stepped into this market by offering “landscapes” as catalysts for regional integrated conservation and development interventions. Examples are the Greater Ruvuma Landscape in Eastern Africa (WWF); the Terai Arc landscape in Nepal (WWF); the African Wildlife Foundation (AWF) Heartland landscapes; Protected landscapes as IUCN Protected Area Category V; “Living landscapes, conservation without borders” of WCS; the Livelihoods and Landscapes Programme of IUCN including landscapes such as the Great Lakes Region, the Congo Basin, the Upper Guinean Forest Landscapes, Sahelian Landscapes, and the East and Southern African Forest Landscapes.
- Organisations like IUCN, WWF and CIFOR are renowned and rewarded for their “conceptual think-tank status”. As the ideas on natural resource management progress, based on successes and failures alike, these organisations regularly launch new global approaches such as the landscape approach (“hotspots, eco-regions, conservation landscapes, living landscapes”). These approaches are appealing to international donors as necessary to take on the huge global threats to ecosystems and species, in an all-encompassing and “cost-efficient” way. Conveniently only “big” NGOs such as WWF, IUCN, TNC and WCS can manage such large scale schemes (Chapin, 2004).

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<sup>4</sup> Also included in this category are the many variations of community forestry, joint forestry management, collaborative management, etc.

- The forestry sector has lost ground over the past decade in terms of international donor support<sup>5</sup>. A strategy to contain this challenge has been to expand forest management approaches from timber production, via Sustainable Forestry Management to cross-sector landscape approaches infusing both conservation and rural development (payment for environmental services) dimensions. This was in the interest of large international environmental NGOs.

In exploring examples that showcase a landscape approach it was observed that hugely varied geographical areas have been merged as landscapes that were considered worthy to be conserved. For instance, the WWF is conserving the [Greater Ruvuma Landscape in Eastern Africa](#), which is supposedly supporting the life of 30 million people. Critical questions can be asked about this case: Conservation for whom? For what? How much all-inclusive negotiation on the definition of this landscape has taken place and whose agenda is driving development interventions? Critics such as Mac Chapin (2004) suggest that the large conservation NGOs such as WWF, CI and TNC introduced the landscape concepts as “slick marketing tools – slogans and catchphrases” based on scientific evidence largely for “decoration” to tap international funding for global (conservation) approaches to global (conservation) problems. The marketing gimmick has been successful so far, the problem that remains is to find a practice to support theory.

*What is new in “thinking in landscapes”?*

Although the introduction of the landscape approach may have been triggered by different (institutional) interests, it holds elements that add value to attempts to manage natural resources. The landscape approach is particularly valuable to create an understanding in the complex (competing) interrelationships between resource use and users across scales. In that regard it is helpful to make a distinction between the landscape concept as analytical tool and the landscape approach as planning and management tool.

The landscape concept offers an interesting framework for analysing causal relations between stakeholder interests and related processes at different locations (different scales) and at different institutional levels. There is emerging recognition that the different components of the landscape, or landscape mosaic, combine to form a dynamic whole that is greater than the sum of the parts. Interest groups such as conservationists attempt to use the landscape as unit of analysis to manage large areas of land in an integrated way to optimise the multiple functions of its different components or in other terminology of the different environmental goods and services (Sayer and Maginnis, 2005).

What is recognised is that issues affecting the management of natural resources are frequently not site-specific. The root causes of biodiversity loss and poverty for example are usually not bio-physical but rather political, social or economic, and these underlying causes occur at a variety of scales (usually not at a local level). Addressing these issues requires analysis (and action) at different scales and locations. Accordingly, it is argued that it is essential to adopt a more integrated, landscape perspective to land use management. A landscape perspective recognizes that people and the ecosystem are part of the same system, with the components of the system being interconnected. What happens in one part of the landscape will affect other parts of the landscape. It also recognizes that landscapes are dynamic, changing over space and time and, therefore, an adaptive approach to

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<sup>5</sup> For instance the expenditure of the Dutch government on forestry activities (as a percentage of the total budget) has gone down from 2.4% in 1999 to 1.6% in 2007 ([http://www.proforis.nl/index.php?Expenditure\\_on\\_Forests](http://www.proforis.nl/index.php?Expenditure_on_Forests))

land use management is essential. Furthermore, by acknowledging the cultural, economic and ecological value of ecosystem services, and not just those that are currently traded, a landscape perspective seeks to enhance human well-being and long-term ecological integrity. The landscape approach is very much linked to the thinking of holistic management of natural resources and as such linked to the Ecosystem Approach. Sayer and Maginnis (2005) argue that differentiating between ecosystem management, ecosystem approaches and landscape approaches is largely a question of semantics. In this thinking the landscape concept is defined as “a contiguous area, intermediate in size between an eco-region and a site with a specific set of ecological, cultural and socioeconomic characteristics distinct from its neighbours”. However, in practice all landscapes are social constructs and the definition of a landscape lies largely in the eye of the beholder (Maginnis et al., 2004).

Phillips (in Brown et al, 2005) sees a landscape as a meeting ground between:

- Nature and people – and how these have interacted to create a distinct place;
- Past and present – and how therefore landscape provides a record of our natural and cultural history;
- Tangible and intangible values – and how these come together in the landscape to give us a sense of identity.

Herein lie both the strength and the weakness of the idea of landscape. The strength of landscape is that it embodies many facets and appeals to us in all sorts of ways. Its weakness is that – just because it is a meeting ground – no single profession owns it or can champion it unaided: the proper understanding of landscape calls for contributions from many disciplines. Furthermore, landscape is a cultural construct and often culturally contested: different groups will see it differently, and ideas about it are not constant but change over time. Thus an Australian aboriginal will read quite different things into the outback landscape than a farmer of European origin. Finally, because many of the values of landscape cannot be quantified, they are open to challenge in a world where what cannot be measured is at risk.

Landscapes consist of a range of separate sites with various land uses and functions. The underlying idea is that the landscape as a whole is more than the sum of its parts. Boundaries are set arbitrarily, defined by people for a particular purpose at multiple scales. In practice therefore one can think of superimposed landscapes with different boundaries, defined by different people for different purposes. The boundaries will always remain “fuzzy” (Fisher et al, 2005).

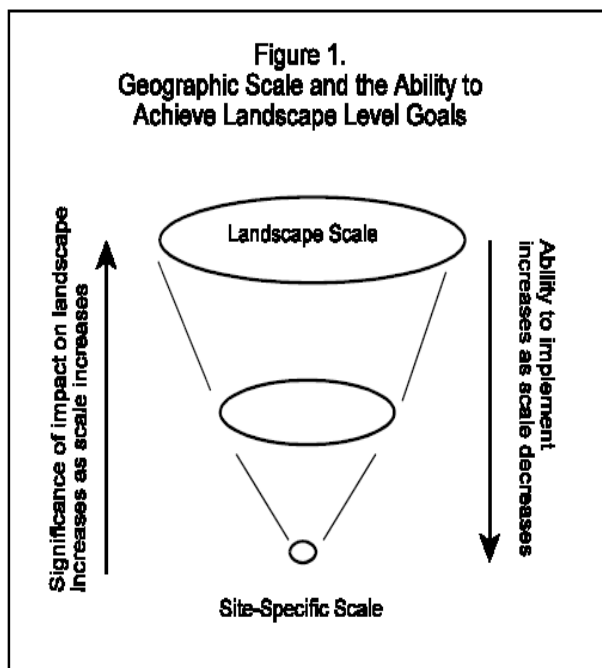
Multiple scales (also called “nested landscapes”) are not just a matter of ever-widening geographical scales, but also include an institutional and political landscape which can be thought of as a vertical dimension. In other words, we need to think both of multiple institutional levels and multiple geographical scales. Dealing with questions of scale and multiple levels presents methodological difficulties. Boundaries are not always clear. The causes of local effects are often remote geographically or rooted in institutional factors. Further, the relevant physical boundaries will shift, depending on the issue being addressed. How can the relevant boundaries be recognised in such circumstances? Who affects or is affected by a particular landscape? Whose agenda is predominantly represented by any given “fuzzy” landscape? Who will benefit? These questions may be conveniently overlooked in academic analysis but cannot be overlooked when we descend into the real world and stakeholders have to design management options and negotiate resource use decisions.

*Landscape approaches - a theory without a practice?*

When it comes to applying the landscape approach as a planning and management tool it proves to be difficult to deal with “nested landscapes” and “fuzzy boundaries”. Defining the landscape perspective is a complex process wrought with uncertainties. In order to bring landscape level thinking into the arena of practicable application, a smaller geographic scale must be involved at which level management interventions can more readily be designed and implemented to achieve stipulated objectives. Figure 1 suggests that:

- The ability to achieve landscape level management objectives increases with the scale of the geographic area being jointly managed;
- The ease with which joint management (action) can be undertaken increases as the size of the area being managed decreases; and
- A “middle geographic scale” exists at which the management objectives of various stakeholders overlap and at which multiple stakeholders possess the capacity to reasonably undertake actions that have sufficient impact on the broader landscape.

The above argument is asking for pragmatic “landscape” definitions that are “manageable”, part of some organisations’ mandate and/or institutionally recognisable and workable. However, are these pragmatic landscapes not nested in wider, possibly more critical landscapes hereby falling in the same trap as the “old fashioned” integrated management approaches?<sup>6</sup>



<sup>6</sup> The Forest Landscape Restoration (FLR) initiative – another WWF/IUCN (and others) offspring of landscape approaches strategically zooming in on secondary forest biomes aiming to “re-establish ecological integrity and human well-being in the degraded forest landscapes” is more pragmatic in defining FLR landscapes to be restored. Lamb and Gilmour (IUCN, 2003) regard the following landscape types as particularly appropriate for FLR: mining sites, habitats of particular species, bufferzones around protected areas, corridors between protected areas and forest fragments. These choices are indeed practical entry points but are they in line with what is interpreted as innovative in a landscape concept?

Thinking in multiple geographical scales and multiple institutional levels has serious implications for management, and as such for the required power, resources and skills of natural resources managers:

- Since factors affecting natural resources and rural development operate at multiple scales, attempts to address related problems must also do so. Interventions should have multiple points of entry. As it is unlikely that one single programme or project can deal with all relevant levels, alliances need to be struck to ensure an all-encompassing response. Interventions at all levels need to be linked “upwards” and “downwards” (in terms of both geographical scale and institutional level). In practice this means multiple sector coordination and collaboration in order to negotiate a process that is becoming more and more difficult at increasing scale. Collaboration is however often constrained due to competition amongst conservation/development (or development/conservation) organisations.
- The landscape is multifunctional and represents the interests of a wide variety of stakeholders increasing with scale. Management requires the facilitation of multi-stakeholder processes and dealing with vested interests and power, increasing in magnitude with scale<sup>7</sup>.
- The landscape is multifunctional and its functions or in other words its environmental goods and services from climate control to landscape beauty need to be valued - ideally but not necessarily in financial terms - to allow trade-offs between land use options to be made<sup>8</sup>. This information is absolutely essential if any informed negotiation process amongst stakeholders is to take place. However, it will be quickly very clear that bringing all information to the table to allow “informed negotiation” is costly, time consuming and expert-driven. These attributes are usually not readily - and equitably - available.
- The complexity of both the ecological-technical as well as the socio-economic dimensions of a landscape approach is immense and as such no ready-made or “final” solutions to the problems a resource manager is faced with can be expected. Landscape management is therefore necessarily an iterative process continuously adapting to ever-changing circumstances. Participatory monitoring and evaluation or wider defined as social learning ought to be a key element of applying landscape approaches, hence time is an important factor.

To apply a landscape approach in the sense of the definition above seems to be complex. The approach is more than ‘old wine in new bottles’ and goes further than concepts like ICDPs or integrated natural resources management. This may explain why it proves to be difficult to find cases (in the South) where a landscape approach as defined above has actually been applied and resulted in “win-more; lose less” type of management outcomes that were negotiated by all stakeholders involved and indeed contributed to sustainable management of natural resources across scales; hence the suggestion that the landscape approach is a theory without a practice.

Admittedly, the landscape concept is a different way of looking at land use and seemingly helpful in provoking resource managers to “look outside their box”. Balancing land-use objectives over a wider scale is more useful than attempting to balance them at a site level. However, there is a thread of

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<sup>7</sup> The vested interests of organisations engaged in the use of natural resources or their conservation are huge. There are not only the obvious big players like (multi)-national companies and national governments but also the BINGOs (big international NGOs) such as WWF, TNC, CI and IUCN. Also these can be regarded as multi-billion businesses with as prime objective to sustain their institutions not necessarily always in line with the “conservation and development” gospel they preach (Chapin, 2004).

<sup>8</sup> For an interesting and critical overview of the valuation of environmental services, see: Landell-mills and Porras (2002); Silver bullet or fools gold – A global review of markets for forest environmental services and their impact on the poor. [IIED publication](#).

using the landscape concept as a justification for centralised planning, as attempts to control the ways in which objectives are balanced. Negotiated outcomes in that mode will remain empty shells.

### *An example of a theoretical landscape approach*

Following a boom in publications on landscape approaches in 2005 and an increasing use of the terminology in programmes of international conservation NGOs and donors it seemed opportune to develop training programmes on “landscape thinking” for professionals engaged in international forestry, biodiversity conservation and rural development. Wageningen International together with RECOFTC in Thailand designed the short course: “landscape functions and people” and delivered it annually as from 2007. The 2-weeks course is an attempt to give the landscape approach “hand and feet” as course participants largely consisting of development practitioners are not very keen to learn about concepts only. The landscape approach, as interpreted by Wageningen International/RECOFTC can be outlined as a process approach (interdisciplinary, across sectors, inclusive, iterative and learning-oriented) following a number of stages<sup>9</sup> and heading for “a negotiated outcome”:

1. Problem identification - identifying drivers of change (and conflict) as well as visioning outcome in the context of a pragmatically chosen definition of a landscape such as the Terai in Nepal, the Upper Mekong delta, the Great Limpopo Trans-Frontier Conservation Area, etc. This entails describing resource dynamics, historical evolution, biophysical, social, economic and political drivers<sup>10</sup>.
2. Identification of stakeholders and institutions at different scales affecting or being affected by changes in the landscape. This requires understanding the processes played out, investigate interactions between stakeholders and institutions at different scales, experimentation and modelling to test assumptions, to validate interpretations with stakeholders and understand power and influence.
3. Understanding landscape functions and valuation of available environmental goods and services (from timber product value to spiritual value of sacred groves; from climate control functions to landscape beauty). The landscape mosaic as complex as it is, is used by multiple stakeholders at multiple levels giving different value to the use and conservation of the various environmental goods and services. Understanding these values from the different stakeholders’ perspective (a livestock farmer and an international tourism operator have a different perception of and place a different value on the same natural spring in an attractive local forest) is important to allow for informed decision-making in NRM. Even though methodologies to identify environmental goods and services and their valuation are predominantly scientific (complex and time-consuming) and still in development, and sometimes contested, their contextualised application seem an attractive and informed way of comparing alternative resource uses from different perspectives. As such, in the interpretation of Wageningen International/RECOFTC, this step is considered key in a landscape approach<sup>11</sup>.

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<sup>9</sup> See Rozemeijer (2007) and <http://portals.wi.wur.nl/landscapes/>

<sup>10</sup> A connection is made with the “Competing Claims” NEDEED model as defined by Giller (2005) which is presented as a interdisciplinary methodology that focuses on the role of science in supporting negotiation between and within different stakeholder groups at different scales. The link with the landscape concept as defined above is obvious.

<sup>11</sup> Where conservationist NGOs such as WWF, IUCN and WCS apply the landscape approach to drive home their conservation agenda it is ironic to note that by applying a more rigorous interpretation of the landscape approach (a.o. inclusiveness of all interests as one of its principles) one promotes a more informed and therefore balanced process of stakeholders making trade-offs between various alternative land use options (conservation of biodiversity obviously being only one of them) and hence calling for more evidence-based negotiation of outcomes rather than political agendas of the powerful. It is not difficult to predict that by applying such a landscape approach many of the conservation areas in the world, especially in the south might be seriously decreased in size as a result.

4. Scenario development – the stage in which trade-offs and choices are explored, and alternative (innovative) resource use options further researched.
5. Negotiation and trade-offs made. This stage elaborates decisions made towards problem-solving, the design of opportunities, formulated policy, strategy, and plans.
6. Implementation of the “landscape” plan accompanied by rigorous M&E for impact in order to learn and adapt.

The evaluation of the course content by course participants so far (2007 and 2008) has been generally supportive. The “why landscape approach” and “what to do” questions were responded to positively; the “how to do it” questions however remained largely unanswered.

### **Multi-stakeholder process approach<sup>12</sup>**

#### *The MSP approach in short*

Terminology that is often used tends to lose its meaning and the multi stakeholder process (MSP) concept is a case in point. In the literature on institutional development and societal change in the NRM sector it is recognised that any effort to manage change almost by definition requires the engagement of multiple stakeholders, and that management involves facilitating multi stakeholder processes that can cope with complex interests and interactions. In that perspective MSP is often equated with “participatory development”. However, an MSP approach aims at much more than “just” participation.

The complex issues that feature at the interface of NRM and development reflect dynamics of power between the State, the economic sphere and civil society which has enormous consequences for the types of changes that are possible and the manner in which these social, economic and political changes can take effect. No actor can drive an agenda on its own. Progress hinges on constructive engagement of all. Progress requires more than “just” a negotiated settlement. Instead it requires understanding from new perspectives and challenging “old” assumptions, paradigms and values. Solutions to sustainable development dilemmas are often not immediate apparent and shrouded in uncertainty. Making progress requires a creative, responsive and adaptive outlook. The capacity for learning and innovation becomes paramount.

The MSP approach recognises that most complex problems will never be solved by one group alone. As difficult as it may be the only option is to bring the scientist, the community, the farmer, environmentalist, economist, politician and others together. An MSP enables different perspectives to be presented and debated, options to be evaluated, decisions taken and implemented. Such processes involve working with all the complexities of how humans interact – culturally, socially, politically and economically. Such processes involve learning from each other a process often referred to as *social learning*.

Over the last decades, terms such as adaptive management, collaborative management, participation, citizen involvement, community participation, communities of practice (COPs), dialogue, and landscape approaches have proliferated in the natural resources management (NRM) literature. These terms all embody the idea of bringing together different stakeholders (actors) who have an

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<sup>12</sup> This section heavily draws on the work of Jim Woodhill as formulated in various working versions of his guide on facilitating complex multi-stakeholder processes. Reference is made to: Facilitating complex multi-stakeholder processes, a social learning perspective (2004); and Facilitating Multi-stakeholder Processes, Complexity, Learning and the Dynamics of Social Change. A Practitioners Guide (2009).



interest in a problem situation and engaging them in processes of dialogue and collective learning that can improve innovation, decision-making and action. From this perspective MSPs are a specific contribution to the broader idea of social learning underpinning all of these approaches.

**Features in NRM that demand an interactive (MSP) approach**

- complexity of interconnected biophysical, social, economic and political factors;
- uncertainty of future consequences;
- multiple stakeholder interests at multiple scales;
- causes and effects and costs and benefits separated across time and space;
- issues and conflicts are often about values;
- strong vested interests;
- need for coordinated action across political boundaries;
- issues are often an externality in the economic system

*Source: Woodhill et al 2009*

All these concepts and approaches need to be understood within a context of governance, and in fact the failure of current governance mechanisms to deal with the challenges of sustainable development. Social learning seeks an alternative to two classical strategies for governance: (1) that government and experts should make decisions for society and 'solve our problems', or (2) believing that social change should be left largely left to market forces with minimal guidance by government. Failure at both ends of this spectrum of governance mechanisms has fed the interest in social learning and more participatory forms of democratic governance. Improving the ways in which we learn as a society means building capacity to assess consciously and critically the consequences of our behaviour and how social structures (institutions) shape the way we think and act. Social learning actively engages different groups in society in a communicative process of understanding problems, conflicts and social dilemmas and creating strategies for improvement. *Social learning can be defined as a process by which communities, stakeholder groups or societies learn to innovate and adapt in response to changing social and environmental conditions* (Woodhill, 2004). Thus social learning is more than just "community participation" or learning in a group setting. It involves understanding the limitations of existing institutions and mechanisms of governance and experimenting with multi-layered, learning-oriented and participatory forms of governance. Improving the way societies learn challenges us to think about the role of civil society, the way media works, the type of education we receive, and the relationship between science and society, etc.

*The MSP approach as paradigm of development (challenging other paradigms)*

A paradigm provides the philosophical context for the development and use of particular methodologies to address challenges or tap opportunities. Woodhill et al (2009) defines paradigm as an "overarching framework of beliefs, assumptions and approaches that shape how individuals, organisations and societies behave and respond to problems and opportunities".

Whatever we do is based in some way on an underlying set of beliefs or assumptions about the world and the universe we inhabit; often these are so internalised that we are unaware of their guiding influence. The nature of these beliefs and assumptions (or 'worldviews') leads humans to interact with their surroundings and each other in quite different ways. A particular set of beliefs, assumptions and ways of acting is what is commonly referred to as a paradigm. An extreme example is provided by the contrast between many traditional tribal societies and modern scientific societies, each of which display very different paradigms. There are many other examples, like those mentioned below such as in the world of business and organisational development where, in many places, there has been a

paradigm shift from top-down hierarchical management to horizontal, team-orientated and interdependent approaches. In the environment and natural resource management sector there has been a significant shift from a paradigm emphasising technical solutions to one in which participatory and collaborative approaches are pursued.

**Competing paradigms (mental models, world views)**

- Right politics - Left politics
- Capitalism - Communism
- Positivist ideas about knowledge - Constructivist ideas about knowledge
- Economic Rationalism - Institutional Economics
- Humans are selfish - Humans are altruistic
- Planned intervention - Process interventions

*Source: Woodhill et al 2009*

Thinking about paradigms means being conscious and critical about the fundamental assumptions and philosophies that shape the way problems and opportunities are approached. Many of the problems that MSP initiatives aim to address have come about because of the dominant 20th century assumptions relating to the environment, the economy and technological progress. Improvement will often require not just trying to solve the problems within the boundaries of the paradigm that created them, but rather recognising the need for an alternative paradigm. In short it is all about different mindsets, worldviews, belief systems, and underlying assumptions, or in yet again other words, it is about “thinking outside your box”.

When the leading paradigm of the MSP approach is to challenge other paradigms the obvious question is how to do that? Woodhill et al (2009) introduces a core process model that outlines the key elements of most MSPs. Every MSP needs to be tailored to the specific needs and context of the particular situation and there is certainly no simple and universal step by step model to be followed. However, through experience it is also clear that there are some basic elements that need at least some consideration. The four phases of the process model are initiating; adaptive planning; collaborative action; and reflective monitoring. While there is some logic to a sequential flow from setting up, through planning, implementation and then learning this is not meant to be a step by step model. Each phase overlaps in an ongoing process cycle. The model is of course an oversimplification of reality, for example the process of learning and adapting must also begin at the setting up stage. Likewise sometimes a good process will begin by implementing a specific project to build stakeholder confidence even before more strategic planning begins.

A multi-stakeholder process may be initiated with a gathering of representatives from all interested parties to clarify core issues. This may then lead to more extensive consultation, learning and negotiation amongst particular stakeholder groups. Research and investigation may be undertaken to gather necessary information. Education and media activities may play a role in generating broader understanding of the issues. Different combinations of stakeholders can be brought together to discuss specific subjects. A representative coordinating group may oversee and facilitate the entire process. Empowerment of some groups may be required for them to participate effectively and equitably. It is likely that the capacity of all stakeholders will need to be built in various ways to enable effective participation.

### **The four phases of the MSP process model in detail:**

#### Initiating

- Clarify the reasons for an MSP
- Undertake initial situation analysis (issues, stakeholders, institutions, power and politics)
- Establish an interim steering body
- Build stakeholder support
- Establish the scope, mandate and expectations for the MSP
- Outline the general process, time frame, institutional requirements and resource needs

*Throughout: Reflective monitoring*

#### Adaptive planning

- Build stakeholders understanding and trust of each other's values, motivations, concerns and interests
- Full analysis
- Generate visions for the future
- Identify issues, problems, and opportunities
- Examine & Research future scenarios and feasible options
- Make decisions and agree on key strategies
- Set objectives and identify actions, timeframes and responsibilities for the process
- Document and communicate planning outcomes

*Throughout: Reflective monitoring*

#### Collaborative action

- Develop integrated initiatives and detailed action plans per phase of the process
- Secure resources and technical support
- Develop capacities of stakeholders
- Establish required management structures and procedures
- Manage implementation processes
- Maintain the commitment of stakeholders

*Throughout: Reflective monitoring*

#### Reflective monitoring

- Create a learning culture and environment
- Define success criteria (performance questions and indicators)
- Develop and implement monitoring mechanisms
- Review, evaluate and discuss progress and capture lessons learned
- Feed lessons learned back into strategies and implementation procedures
- Create opportunities for Action learning

*Source: Woodhill et al 2009*

### **The “illegal chainsaw lumbering” project in Ghana**

This paper was prepared to respond to the question to what extent a landscape approach can be applied to give structure to a multi-stakeholder process (MSP). The case study context in which this question has been posed is the implementation of the EU-funded Tropenbos project: “*Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana*”<sup>13</sup>.

#### *Project rationale*<sup>14</sup>

This 5 year programme (2008 – 2012) focuses on the broad theme of forest governance in countries with a high incidence of chainsaw lumbering. In many local and indigenous forest fringe communities, chainsaw lumbering is an important component of livelihoods. Yet generally the level of conflict and

<sup>13</sup> In this paper only the Ghana context applies.

<sup>14</sup> Drawn from project document.

illegality associated with chainsaw lumbering is high. Chainsaw lumbering, which refers to on-site conversion of logs into boards using chainsaws, offers livelihood opportunities to large rural groups, who are often living in places that offer few alternatives. The strength of chainsaw lumbering is that it pairs low capital requirements with high labour input. Therefore it represents a cheaper alternative to the typical high capital, low labour intensive conventional logging and milling. As a result, the price of chainsaw lumber is low and therefore within the means of poor sections of the population.

In Ghana chainsaw lumbering is banned but several factors have promoted the widespread abuse and illegal application of the technique. Often local communities have no or insufficient legal access to timber sources, while the high portability of chainsaws makes chainsaw lumbering elusive to control by forest authorities. The scope for large profits in chainsaw lumbering is considerable where the traditional sawmill industry is incapable of satisfying domestic markets with cheap timber, for instance if the industry prefers to service the more attractive export markets or if traditional logging is costly due to inefficient practices or high forest charges. Corrupt practices in the regulating systems may exacerbate the problem. At the same time, the existence of illegal practices stimulates the development of exploitative business relations, eventually leading to low benefits for actors early in the production chain and large benefits for others, usually financiers of operations who are located outside the communities. Illegal activities by a part of the chainsaw lumbering community inevitably lead to complaints and conflict with several other stakeholder groups like the Government, traditional sawmill owners, conservationists and other owners and users of trees and forest resources. These deep and sometimes open conflicts characterise the interactions between forest sector actors in countries such as Ghana.

The increasing attention on illegal logging will inevitably put pressure on this mode of logging. While international attention focuses on the behaviour and trade of large companies, there is a risk that well-intended measures to regulate the forest industry will lead to a crackdown on small-scale loggers with potentially seriously negative livelihood consequences for poor people. Rather than reducing forest conflict, the consequence may be a hardening of the conflict and increased incidence of poverty and violence. There would be a considerable benefit to designing policy measures that address the negative aspects of chainsaw lumbering, while maintaining its positive socio-economic effects.

#### *Objectives, strategy and intended results*

The programme will focus on the role of multi-stakeholder dialogue as a mechanism to reduce conflict, adjust perceptions of the nature of the problems and create shared views of solutions. This dialogue will be based on the participatory analysis of information that will help identify and accept the issues surrounding chainsaw lumbering and reduce the controversies. A broadly supported agenda of actions will be agreed upon and implemented. This agenda includes actions at the national level to address the conditions that promote illegal chainsaw lumbering; and at local level to transform current chainsaw lumbering strategies into more acceptable and sustainable forms. At the same time, lessons will be learnt to assist international policy makers to effectively consider the role of chainsaw lumbering in efforts to reduce illegal logging and improve local livelihoods. The project overall objectives are to:

1. reduce poverty and promote viable livelihoods in forest-dependent communities;
2. reduce the occurrence of illegal logging; and
3. promote conservation and sustainable management of tropical forests in developing countries.

The specific objective is to reduce the level of conflict and illegality related to chainsaw lumbering by local communities. The programme consists of five substantive results, at different levels:

1. Causes and consequences of chainsaw lumbering and its links with illegality understood (National level);
2. International best practice determined to address chainsaw lumbering (International level);
3. Multi-stakeholder learning platforms established to discuss chainsaw lumbering issues (National level);
4. National consensus achieved in Ghana and Guyana about issues regarding chainsaw lumbering using an institutionalised mechanism for permanent dialogue between stakeholders (National level); and
5. Communities dependent on chainsaw lumbering producing timber in a regulated and sustainable way (Local level).

### **Applying a landscape approach in the Ghana project case**

Although the project document does not feature the word “landscape” it was decided during early implementation in 2008 to apply a landscape approach presumably to explore the sought-after alternatives for illegal chainsaw lumbering. Gaining insight in the various alternative land use options that the “landscape” avails offers opportunities to link community interests with the wider regional and national perspectives of natural resources management and as such offers potential for more equitable and sustainable development (and good natural resources governance). The “landscapes” presumably selected so far are the 8 selected forest districts with administrative boundaries as defined by the Ghana Forestry Commission. It is understood that these pilot districts are selected to ensure that the multiple stakeholder groups at “local level” are consolidated and represented at multi-stakeholder dialogue at national level where all national stakeholders are gathered<sup>15</sup>.

While the design and planning of the multi-stakeholder dialogue is well elaborated in the project documentation it is difficult to see how information will be obtained to explore the alternative resource use options that the “landscape” provides. The landscape mosaic as complex as it is, is used by multiple stakeholders at multiple levels giving different value to the use and conservation of the various environmental goods and services. Understanding these values from the different stakeholders’ perspectives is key to allow for informed decision-making in NRM. Bringing this information to the table requires resources and skills of the programme staff to gain access to scientific information on values of environmental goods and services as perceived by different stakeholders, time and resources to do applied research to allow comparison of values and interests across scales in complex “decision support systems”, time and resources to translate complex and voluminous data sets into land use options that can be compared in a transparent and equitable manner (especially at local levels).

Both the programme’s intended results and action plan (project document, 2007) lack activities (and hence presumably time and resources) to bring the above data sets on the table to allow for an informed dialogue beyond assessing the question whether chainsaw lumbering should be illegal or not, and what are the implications of both options. While a “landscape approach” and an “MSP approach” as defined above are meant to challenge sector approaches respectively development paradigms, the project outline does not seem to entertain either of the two. With implementation at local level firmly in the hands of the Ghana Forestry Commission this is not very surprising.

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<sup>15</sup> Draft “Process towards establishment of the MSD in Ghana”, internal project document 2008.

## Opportunities and constraints of applying a landscape approach in the Ghana “illegal chainsaw lumbering” project context

While it is currently not entirely clear to what extent a landscape approach is infused in the project implementation apart from a management decision to do so but without any project activities in the project document to back it up, one can think of the following opportunities/constraints of applying such approach (as defined in the previous section):

Opportunities	Constraints
A landscape concept offers a focussed rationale for understanding of the multiple uses (multiple values attributed to environmental goods and services) of natural resources by multiple stakeholders (across scales) affected by changes in the chainsaw lumber policy and practice.	The practical difficulties of defining “the landscape” (boundaries) tends to force the initiating stakeholders to fall back on administrative boundaries (either geographical or institutional) and continue project implementation as “business as usual”.
With livelihood strategies of the poor more often focused on risk aversion (and therefore multiple strategies) rather than on specialisation and optimisation, a landscape approach would offer opportunities to better exploit the diverse livelihood options provided by the landscape.	The data sets necessary to be able to weigh the various, and differently valued options that the landscape provides are difficult to retrieve in terms of expertise, resources and time, and are not likely to be retrieved by means of “just” stakeholder consultation.
A landscape concept offers an opportunity to map out common interest (those that make stakeholders part of the landscape as “something that is greater than the sum of its parts”) as entry point for negotiating optimal use.	Following a landscape approach puts more emphasis on feeding the “negotiation” with data to allow for informed decision-making on optimal use of the mosaic of land uses while the Ghana project has been set-up as a lobbying and advocacy programme to map out the possible implications of changes in the chainsaw lumbering policy and practice. The difference in both perspectives means a lot for required resources and staff skills. The former perspective would have to emphasize generation of knowledge while the latter (the current programme) emphasizes the facilitation of discussion.
When perceiving landscape thinking as means towards “negotiated outcomes” the concept enhances understanding of multiple perspectives and multiple demands on (by definition scarce) natural resources, and hence offers a welcome alternative to the often false assumptions underlying “consensus-based management” and “win-win scenarios”.	Applying a landscape approach amidst multiple stakeholders balancing multiple options is by definition cross-cutting sectors, disciplines, and related disciplinary paradigms. Such approach would benefit from the facilitation by a “neutral” party (for as much as these exist). The Ghana project has been conceived, designed and is implemented by dominant forestry sector institutions making it very difficult to perceive these agencies as “neutral” and encompassing the entire landscape and not only just one dimension.
Infusing “competing claims” thinking into the landscape rationale would offer opportunity to map out power relations between stakeholders (across scales) and hence make the search for alternatives to illegal chainsaw lumbering practice more relevant (and perhaps more effective) for poverty alleviation and sustainable forestry management.	

## Observations

This discussion paper should by no means be regarded as a premature evaluation of the “illegal chainsaw lumbering” project in Ghana. The project only started last year and reports on progress are still unavailable hence the basis to make any judgements on early implementation and expected impact is thin. However, the management decision to apply a landscape approach *after* project design is interpreted as an invitation to comment prematurely. This paper intends to contribute to the internal discussion on how to implement the management decision. The following observations are hopefully useful to that effect:

1. Looking at the table above it is argued here that inserting a landscape approach into the “illegal chainsaw lumbering” project involves a risk of overestimating the capacity of the project to follow the approach through and put the necessary building blocks in place to identify and develop “alternatives” for illegal chainsaw lumbering. The risks may translate in haphazard use of resources, making demands on staff beyond their capacity, and confusing project partners resulting in ineffective and inefficient implementation.
2. On the other hand implementing the project as a perceived lobbying and advocacy programme may put an end to a “ban on chainsaws” policy in Ghana - which most people currently agree to as having no positive effect on sustainable forestry management whatsoever - but may fall short in finding alternative livelihood options for forest fringe communities. Put it differently, without an integrated approach to NRM such as a landscape approach, the project runs the risk of overestimating the effectiveness of the selected mechanism - namely the facilitation of a national multiple stakeholder dialogue – to improve forest governance in order to make the intended impact on poverty reduction and conservation of tropical forests.
3. Applying a landscape approach as defined in this paper will require substantial resources, staff skills and accompanying management systems that are different from the current set-up that is predominantly perceived as a sector-driven lobbying and advocacy programme. Assuming that EU funding regulations are too rigid to change directions drastically mid-term it may be advisable to explore options for increased collaboration with (international) R&D institutes working in Ghana to assist in filling the anticipated knowledge gaps in search for the alternatives for illegal chainsaw lumbering.
4. From the perspective of the tropical forests’ advocacy organisation Tropenbos International and the Ghana Forestry Commission there is obviously nothing wrong in launching a lobbying and advocacy programme for the conservation of tropical forests. Paying allegiance to this mandate does not make the organisations however the ideal “neutral” facilitating agency to guide multiple stakeholders through a landscape level analysis and planning process that may well move beyond forestry. Perhaps other institutions can play that role more effectively and attempts have to be made to bring these on board and gain access to the necessary resources.
5. Overall, the project management should give more thought to the added value of applying a landscape approach as project strategy. Using the “precautionary principle”: only apply it when you are sure that it does not harm but assist in effective implementation may save resources and limit frustrations

What is left is the question posed in the introduction of this paper: to what extent is a landscape approach to natural resources management a tool towards effective implementation of a multi-stakeholder process (MSP) approach? The question suggests the former as a means towards achieving the latter. This paper has attempted to explore both approaches and fails to see one approach subjected to the other. Rather, both approaches reflect different dimensions of a specific way (a set of knowledge systems, assumptions, methodologies, tools and skills) to manage natural resources. Where the MSP perspective emphasizes the “soft” side of a possible management theory and practice (dealing with complexity, systems thinking, exploring theories of change, search for innovation, social learning-oriented, challenging paradigms), more or less composing the prevailing mental model of the practitioner, the landscape approach (or adaptive management, INRM, collaborative management approach, a policy development process, etc.) emphasizes the “hard” side of theory and practice: management theory, methods, tools and skills. Both perspectives are interconnected to each other like knowing how to drive and knowing where to drive to. You obviously

do not engage in a multi-stakeholder process approach for the sake of the process only, and you cannot apply a landscape approach without having an underlying sense of how a multitude of actors can jointly translate new insights into action. With a MSP approach and a landscape approach as two sides of one of the many possible coins to contribute to NRM one may wonder to what extent the “illegal chainsaw lumbering” project is paying the right currency to achieve its ambitious project objectives. This depends largely on the scope and rigour of the MSP approach applied as multi-stakeholder dialogue and the resources made available to follow through on a landscape approach. At this point in time in project implementation it is too early to judge the outcome.

### **Literature used**

- Brown, J. (ed).** 2005. The protected landscape approach, linking nature, culture and community. IUCN WCPA.
- Chapin, M.** 2004. A challenge to conservationists. World Watch Institute publication.
- Fisher et al.** 2005. Poverty and Conservation - Landscapes, People and Power, IUCN Forest Conservation Programme
- Frost et al.** 2006. Landscape-scale Approaches for Integrated Natural Resource Management in Tropical Forest Landscapes. In: Ecology and Society 11(2): 30. [online] URL: <http://www.ecologyandsociety.org/vol11/iss2/art30/>
- Giller, K.** 2005. Competing claims on natural resources – overcoming mismatches in resource use through a multi-scale perspective. Wageningen UR INREF Project Document.
- Giller, K. et al.** 2008. Competing claims on natural resources: what role of science? Ecology and science, Volume 13/2/34.
- ITTO/IUCN.** 2005. Restoring forest landscapes, an introduction to the art and science of forest landscape restoration. ITTO Technical series 23.
- Lamb, David & Gilmour, Don.** 2003. Rehabilitation and Restoration of Degraded Forests. IUCN publication.
- Maginnis, Stewart, William Jackson and Nigel Dudley.** 2004. Conservation Landscapes: Whose Landscapes? Whose Trade-Offs? In McShane, Thomas O. and Michael P. Wells (eds.). Getting Biodiversity Projects to Work: Towards More Effective Conservation and Development. New York: Columbia University Press.
- Neef, E.** (1967): Die theoretischen der Landschaftslehre. Gotha.
- Rozemeijer.** 2007. Landscape level approaches – context, evolution and principles. Background paper for the Wageningen International/RECOFTC course on Landscape functions and people. Unpublished
- Sayer, J. and S. Maginnis (eds.).** 2005. Forests in landscapes, ecosystem approaches to sustainability. Earthscan publication.
- Tropenbos International.** 2007. Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana. Project document. EU-funded, 2008 – 2012.
- Turner, M.G., R. H. Gardner and R. V. O'Neill, R.V.** 2001. Landscape Ecology in Theory and Practice. Springer-Verlag, New York, NY, USA
- Woodhill, J.** 2004. Facilitating complex multi-stakeholder processes, a social learning perspective. IAC unpublished paper.
- Woodhill, J., Vugt, S. van, Geene, J. van and Verhoosel, K.** 2009. Facilitating Multi-stakeholder Processes - Complexity, Learning and the Dynamics of Social Change. A Practitioners Guide. Wageningen International unpublished paper.
- Wu, J. and R. Hobbs (Eds).** 2007. Key Topics in Landscape Ecology. Cambridge University Press, Cambridge.