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Stakeholder Analysis, Natural Resource Management and Governance – Comparing approaches

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1. INTRODUCTION

1.1 Background

Stakeholder analysis (SA) is a commonly applied conceptual tool for the examination and understanding of complex, natural resource governance actors and subjects. The stakeholder is, however, also a concept used in everyday life often applied without much thought of rigor or even clarity over the concept and its various meanings. This Working Paper aims to assist readers in what the stakeholder analyses could be used for.

The paper reviews literature on the classical stakeholder analysis and contrasts it with a revised neo-institutional perspective on the stakeholder analysis. This implies a critical ontological discussion of the classical approach, contrasting different theoretical positions that guide the application of the stakeholder concept and an attempt to develop and elaborate on a broader theoretical basis for the neo-institutional stakeholder analyses.

At a more practical analytical level the paper involves an in-depth discussion of the four R´s conceptualization of stakeholder elements; rights, responsibilities, relationships and returns. And it entails a discussion over what is gained by moving from the classical rather narrow, instrumental use of the concepts over to a fuller and richer social analysis within a neo-institutional stakeholder perspective with a much more comprehensive and demanding analysis. Doling this, the scope and perspectives may become broader, richer – but also less succinct.

The paper further presents a brief discussion of the SA compared to other commonly used analytical frameworks for human-human-environmental relations.

This paper draws on insight from both social sciences perspectives within institutional theory, and governance with elements from economics, political science and cultural theory.

1.2 A historical review of the classical stakeholder analysis

As part of a consultancy undertaken in 2002, I was forced by merit of the Terms of Reference to carry out a stakeholder analysis amongst stakeholders in Tanzania in relation to catchment forest management (Sjaastad et al 2003). Going to theory and textbooks as an honest researcher and old scout, it became clear to me that "the stakeholder analysis", apart from being an everyday concept often used without much consideration of its multiple meanings, is a contested concept, with several partly incompatible and or incommensurable trajectories or paradigms, to use Kuhn's (1970) concepts. It is an interdisciplinary research field.

An additional challenge for any user of stakeholder analysis is that the concept is part of our everyday language and thus "all" have their own or hold joint, but different, perceptions of a "stakeholder". In legal terms - and in gambling where the term originates - "the stake" implies that some third person or authority holds a temporary control over a property, money or a stake that a number of contestants are drooling to access (Reed

et al. 2009). In more recent forms and in our context, stakeholder also tends to involve some kind of legitimacy over interest or claim in the stake.

The stakeholder concept has travelled a long way. The first and **classical stakeholder approach** was observed in a 1963 internal memorandum from the Stanford Research Institute. It defined stakeholders as "those groups without whose support the organization would cease to exist" (Wikipedia, 2009). A major classical exposition is given by Freeman (1984). Its original focus was on improving project and business management performance to serve the interests of the identified stakeholders, first of all "stakeholders" such as the investors, employees, suppliers - and even customers. The focus was quite clearly on efficient resource use and on maximizing outcomes for involved actors.

Secondly, and with the introduction of New Public Management, new styles of governance with more market and private actors were introduced. Within Natural Resource Management (NRM), *ecological modernization* was introduced as an optimistic, reform-oriented school of environmental social science that gained increasing attention among scholars and policymakers. It was both an analytical approach as well as a policy strategy and environmental discourse (Hajer, 1996). It did not challenge free market principles much and, according to Wikipedia, the concept "contrasts with many environmental movement perspectives, which regard free trade and its notion of business self-regulation as part of the problem, or even the origin of environmental degradation". It was accompanied by market and the private sector concepts and metaphors, that gradually dissipated into the NRM sector's conceptual world. So, the concept of stakeholder also became one of these.

A starting turn from the pure market metaphor came with an interesting article by Grimble (resource economist) and Wellard (ODI 1997), who presented an **NRM stakeholder analysis**, where they still follow an economic logic, but they identified many important empirical complexities of the concept and the field of study. Theoretically, there is no explicit underpinning discussing the ontological point of departure nor implications of this in relation to broader development issues in their work. The goals or motivational assumptions of actors were widened up to include not only economic efficient resource use, but also environmental sustainability (effectiveness) and also aspects of legitimacy linked to distribution and involvement and participation were included.

Woodcock, 2002, however, presented an alternative where a much more explicit social constructivist perspective was developed for what we here term a **neo-institutional stakeholder analysis**. As the stakeholder approach was gaining some momentum in NRM research, so did the critique from researchers who saw that approach as empirically rich but *theoretically* unsound, building on reductionistic assumptions on human behavior and social agency and with a myopic and rather narrow view on social agency. Alternatives are then launched (see Woodcock, 2002, but see also Mehta et al 2001).

A published study by Reed et al. 2009 develops the stakeholder analyses framework along more deliberative perspectives, emphasizing participation, involvement and the increased emphasis on local actors, local knowledge and local solutions (see also Paletto et al, 2015 and Vedeld, 2017).

1.3 Outline of the paper

In this paper I start by reviewing the classical stakeholder analysis and then contrast it to the NRM stakeholder analysis. I then present a more comprehensive and socially situated neo-institutional stakeholder analysis where the four Rs are placed into broader contexts of social agency and good governance. I then round off by discussing the stakeholder approach and the resource regime model with other, alternative or competing analytical models.

2. The classical stakeholder approach and NRM

2.1 The classical stakeholder analysis

The classical stakeholder theory is presently applied in a number of empirical fields, even if it started out as a theory "of organisational management and business ethics that addressed morals and values in managing an organisation". A main purpose was stated to outline major stakeholders and how to streamline a structure to serve the interests of the identified stakeholders.

One may differ between stakeholder analysis as conflict resolution, as project management analysis and as business administration. They all involve processes where individuals are affected by actions or proposals and where a mapping of actors, stakes, outcomes and abilities to impact formulation of goals and structures, implementation and outcomes and distribution are laid out.

Traditionally, the identified stakeholders were related to an input-output model and included investors, employees, suppliers and customers. Broadening this out formed a base for the broader stakeholder theory applications; including governmental bodies, political groups, trade unions, and associations, public goods provision (environment and others) and the public at large.

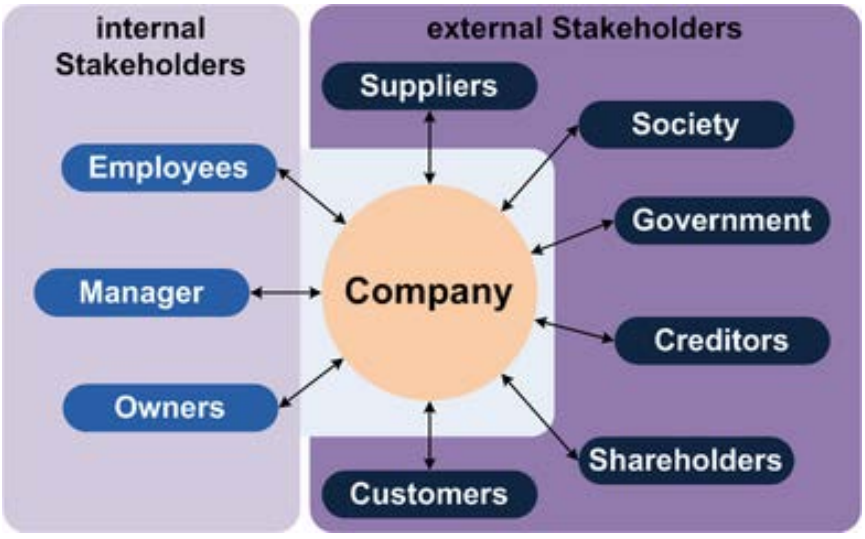

Figure 1. The classical stakeholder approach; (based on Freeman, 1984)

A crucial issue in this regard becomes: by what criteria should stakeholders be identified? One can distinguish between internal and external stakeholders, where in the latter case all factors that affect or are affected by an entity, an intervention or a transaction belongs to the stakeholder analysis catchment area (Figure 1). This analysis can thus be made both narrow and broad - to the extent of involving the whole society. In economic terms, one would differ between the internal stakeholders' and their direct interests; what is directly and privately economically optimal for them, and on the other hand including all stakeholders; what could be overall economically optimal for the different groups defined as stakeholders?

So, from this, what would be an optimal outcome from a classical stakeholder analysis? In neoclassical economic and welfare theory reasoning one often argues that the stake should be made as big as possible (maximize the stake) and that one afterwards should make any desired distributional consideration or amendments. A theoretical standard often referred to is the Pareto-criteria whereby at least one stakeholder should improve his situation, and no-one should have a reduced welfare following the implementation of a measure or policy. In real life, solutions less than maximized stakes are often found due to trade-offs between different powerful groups and interests in society, where especially distributional conflicts – or environmental as a public good can come into play.

Outcomes and distributional concern form a key area of political tension and conflict and is also a focus area for stakeholder analysis. The distribution of shares of the stake: who decides and who gets what? Who has rights, responsibilities and how do dominant power relations structure the decision-making games? The main issues center around issues of access, control over transactions and outcomes for different involved stakeholders.

At a more fundamental level is also to what extent "we are all in this together". Do we all have stakes, and do we get returns? Is there a social contract? There is a tendency for pronounced consensus thinking in this variant of stakeholder analysis approach - at least around maximizing the stake and generally avoiding conflict. This is a very different point of departure from a more social conflict interpretation, as I shall return to.

3. The NRM Stakeholder analysis and development

The strength of a stakeholder analysis in its confined focus on stakes, actors, rights and interactions can also be transposed to the NRM segment, as is attempted by Grimble and Wellard, 1997. In the following I discuss this attempt focusing on both content and merit, and then I discuss some limitations and shortcomings.

3.1 Rationale

The NRM segment is similar to the private business segment in the sense that there are different stakeholders, with different interests or stakes, arguing and struggling for control of access and use of particular resources (the stake) under particular institutional and organizational structures, rules and regulations.

The differences in stakeholder contexts are still important. They can relate to type and properties of resources, types of resource regimes and type of outputs (both private and public goods) and alternative land uses (forest versus agriculture) (Vatn 2015). The governance and rights structures vary in that natural resource policies are the concern of a variety of public sectors and stakeholders; including economically "heavyweight sectors" and segments such as energy, tourism, agriculture, water, and rural development/local government fields and where complex trade-offs and negotiations are part of every-day governance practice. There are thus many stakeholders – and many stakeholders are furthermore poor people with heavy reliance on natural resources.

In NRM stakeholder analyses of NRM policies, complex situations occur where actors with quite different interests meet in a variety of arenas, under particular types and levels of institutional arrangements and where conflicts and power asymmetries over resource control and access are revealed. Conflicts relate both to economic (material) and to socio-cultural (immaterial/ideational) interests. Conflicts also reflect that actors have different skills, abilities and positional power to realize their own interests in meeting with other actors.

3.2 What is the NRM stakeholder analysis?

The core of a stakeholder analysis may be defined as *"an approach for understanding a system by identifying the key actors or stakeholders in the system and assessing their respective interests in that system". Stakeholders include all those who affect or are affected by policies, decisions, and actions of the system; they can be individuals, communities, social groups or institutions of any size, aggregation or level in society. The term thus includes policy makers, planners or administrators in government, and other organizations as well as commercial and subsistence user groups. Stakeholders can also include the more nebulous categories of future generations, the national interest and wider society"* (Grimble et al, 1995:4).

The stakeholder analysis is, according to Grimble and Wellard (1997:173), a powerful tool for policy analysis and formulation, and it has "considerable potential in natural resource policy and program development". The definition above focuses on interests, actors and abilities to realize own interests in the face of others. It is still a reductionistic approach, focusing on a few selected key issues, reflecting that its origin was in modern business management and related to cultures where motives of actors easier could be defined relative to maximization of profits and power.

In real-life natural resource stakeholder situations, there are fights over scarce resources, and an issue in a stakeholder context then becomes: "what do we maximize?" Biodiversity, local people's incomes or resource returns, national or even global environmental services, national tourist incomes, etc.? In this context, the relationships or power relations between actors can become crucial for outcomes or returns, and to what extent the state or actors in other, nested organizational structures will intervene in stake-holding processes.

In a situation with individual private goods, a confined analysis might suffice, while in an NRM situation providing both private and a variety of public goods, the situation is different. Collective goods such as global biodiversity, carbon sequestration, clean water

and health, electricity based on water retention from a forest reserve, soil erosion prevention, shade, microclimate, recreational value etc. will often be such that all people in a society will be stakeholders - the stakeholder analysis can become an analysis of socially optimal or desired solutions.

The set of rights and duties ascribed or assigned to different actors often at different levels of governance and management frame the conflicts in ways that do not always provide clear systems for planning, management, monitoring and control and this will often constrain the possibilities for good governance. Clarifying the different actors, their interests or stakes, responsibilities and status, material and non-material returns, their rights and duties and not least the relationship between them and the natural resource base, becomes important in research directed towards improved governance.

3.3 Why use a stakeholder approach in NRM?

The classical economic approach mainly considers the efficiency in resource use and leaves less room for issues concerning distribution, socio-cultural conditions and rights dimensions, conflicts and even ecological effects of a particular intervention. The NRM stakeholder analysis is designed somewhat broader seeking to unravel such concerns.

Elements from welfare economics, from CBA, and also from the participatory methods and approaches have been merged into the present practices of NRM stakeholder analysis (Reed et al 2009). The approach was developed in response to the challenges of multiple interests, objectives, powers and authorities of stakeholders in natural resource management, to unravel the complex systems and to search and develop "efficient, equitable and environmentally sustainable development strategies" (Grimble and Wellard 1997:173). They highlight some of the following dimensions related to natural resource management issues that they feel makes the NRM stakeholder analysis a useful approach (Grimble and Wellard 1997:178);

1) ***Crosscutting systems and stakeholder interests;*** Watersheds, aquifers, forests etc. cut across social, administrative, legal, economic, political and cultural boundaries; and a differentiated and well-designed stakeholder approach caters for the substantial variations in agendas and interests.
2) ***Multiple uses and users of the resource*****:** Use of resources by different stakeholders may not be compatible; grazing/browsing inside a catchment forest may harm the biodiversity values and water retention properties of the forest, while banning it will often lead to bush encroachment and loss of the fodder resource for both wildlife and domestic animals. Such conflicting uses could be revealed through a stakeholder analysis
3) ***Market failures*****;** Negative external effects of individual decision-makers not bearing the full costs of their own actions (too little consideration of downstream effects, future generations). Another market failure relates to imperfect prices of certain goods; prices may only reflect costs of extraction and not costs of regeneration and the value of the resource itself. These could be reflected in a stakeholder analysis.
4) ***Unclear rights*****;** if traditional management systems break down on account of political changes, economic or demographic stress etc., decision-makers may not

take community interests into account. Such issues would be reflected in a stakeholder analysis.

5) ***Subtractability and temporal trade-offs:*** Natural resources such as forests and soils may be depleted or degraded, and future availability can be hampered by present use. If use by different stakeholders is consciously mapped, a picture of these processes could be traced through a stakeholder analysis.
6) ***Multiple objectives and concerns****:* Different stakeholders can have incompatible objectives or interests; i.e. the illegal timber trade merchant destroying important biotopes versus the local village healer need for particular plants or other resources at stake. This would come out of a stakeholder analysis.
7) ***Poverty and underrepresentation*****:** Poor people often depend directly upon the natural resource base for survival and livelihood. The stakeholder analysis highlights also the needs and interest of poor people that are often underrepresented both politically and economically (limited purchasing and bargaining power).

The stakeholder analysis can - in addition to mapping stakeholders and their interests, their rights and responsibilities and their returns from various activities, relationships - also be used to:

1) **Improve the selection, efficiency, effectiveness and evaluation of policies and projects**. The explicit consideration of potential trade-offs between different policy objectives and conflicts between stakeholder's interests helps avoid the unexpected, facilitates good design, improves the likelihood of successful implementation and assists the assessments of outcomes.
2) **Improve the assessment of the distributional, social and political impacts of policies and projects**. Explicit analysis of the interests and impacts of interventions on different stakeholders (including the poor and the less powerful) can help ensure that costs are borne and benefits realized for those intended. (See also Grimble and Wellard 1997:177).

4. CRITIQUE OF CLASSICAL STAKEHOLDER ANALYSES

There are lines of critique of the classical stakeholder analysis along both empirical and ontological directions. As I present the "neo-institutional" stakeholder approach in the next section, I only give a brief overview of some of more generic ontological critiques here. I put more emphasis in this section on the empirical critique of the classical stakeholder analysis.

4.1 Theoretical positions

From other Noragric Working Papers (Vedeld, 2002 and Vedeld, 2017) and also based on Leach et al 1997, I discuss two distinct ontological positions in social science along the two lines mentioned above related to NRM. This will pave the way for both a more applied approach and for a revised neo-institutional perspective on the stakeholder analysis.

Below I present some ontological discussions of the classical approach in relation to breadth and depth of analysis involving issues like rationalism versus constructivism and reductionism versus contextualism and methodological individualism versus holism (Vedeld 1997).

Table 1. Stakeholder analyses in relation to different theoretical positions

Empirical focus / **Ontological Base**	**Narrow**	**Broad**
Simple Instrumental Reductionist (Rationalism)	**The classical SA approach** (Freeman, 1984)	**The NRM SA approach** (Grimble and Wellard, 1997)
Deep, Comprehensive Holistic (Social construction)	**The Four R approach** (Dubois 1997)	**Neo-institutional SA approach** (Woodcock, 2002)

4.1.1 Social construction and rationalism

One element of institutional arrangements in NRM is the set of rights that individuals hold, and that provide the basic informal or formal rules which govern specific activities of the resource management regimes among individuals and groups. Informal institutions are especially important for the analysis of common pool resources (CPRs) in developing countries because many resource use structures and decisions are based on traditional rules, most of which are not integrated into formal laws.

Concepts of institutions and agency can be explored through rationalist and through social constructivist perspectives. A rationalist perspective (North,1990) would imply that institutions are seen as formal rules of procedure, conventions and protocol, and that people are universally rational, with stable preferences and that organisations are formed to serve the interests of the individual members. Behaviour is clear, rational and consistent. In a similar way the stakeholders will emerge with clear sets of preferences, interests and rights, and their interactions are clear, rational and consistent. It becomes possible to rely on simple and narrow perspectives in the stakeholder analysis accompanying practices as the stakeholder is perceived to be an autonomous utility maximizer (Vatn 2005).

From a social constructivist perspective, however, institutions consist of social values, conventions, rules and norms forming frames of meaning. They are formal and informal, historically constituted and reconstituted, transformed, change and evolve, and can even be undermined through dynamic processes of interactions and negotiations between or within communities and individuals (Cleaver, 1999/2012; Leach *et al.*, 1997). Preferences are not particularly stable and are commonly formed and influenced through relational encounters with existing institutions. Action is seen linked to social values and norms and

appropriately contextualized behaviour. Institutions are overlapping and behaviour is contingent, reciprocal and interpretative. Man impacts institutions and institutions impact man in reciprocal ways. Rationality is seen as socially constructed and "in the eye of the actor". Under the social constructive perspective, the stakeholder suddenly becomes more complex, rights and duties socially contingent, and actions contingent, reciprocal, negotiable and interpretative (Vedeld and Krogh, 2000; Cleaver 2012).

Dubois, 1997 and the Four R stakeholder analyses approach is to some extent found in-between the two outlined theoretical positions. Empirically, he expands the stakeholder focus by including power and rights relations, mutual relationships between actors, more participatory approaches into the analysis itself, more emphasis on the process and implementation perspectives. This expansion can be interpreted as a move towards less rationalist and instrumental perspectives and more constructionist thinking, even though much of this is implicit and under-communicated. It gives, however, a potent framework for structured application of a more social constructed version of the stakeholder analyses as we will come back to and elaborate on later.

More recent institutional theory represents an alternative to rationalism, where even individual rationalities are thought to be context- dependent and socially constructed (Vedeld and Krogh, 2000; Vatn, 2009). While the classical stakeholder analysis avoids these issues by way of definition, a neo-institutional stakeholder perspective would have to be based on these deeper social and culturally rooted processes of decision-making and institutional analysis (Cleaver and Franks, 2005).

Thus, there are different underlying or ontological theoretical approaches from which analysis of natural resource management and stakeholders can be conducted (Table 1). One is a mainstream view of new institutional economics and property right theory which has been very influential on policy, whereas another "emerging view" refers to a diverse range of social constructivist perspectives, including insights from sociology, anthropology, political economy and ecology and legal pluralism (Mehta et al., 2001).

4.1.2 Reductionism versus contextualism

We cannot research everything all the time. How much context do we need? And can we ask this question? The classical stakeholder approach presumes rather simple motives and interests of actors and particular "rules for action" (rational choice). It keeps a limited, but strong focus on actors, interests and rights and duties. From a constructivist perspective and, as we shall look at, this is often seen as a limiting and negative approach not least when trying to understand stakeholders in their social contexts, and in particular in relation to motives, interests and (inter)actions.

4.1.3 Methodological individualism versus holism

Methodological individualism is seen as a method aimed at explaining and understanding broad society-wide developments as the aggregation of decisions by individuals. Holism, on the other side, is about seeing structures and actors and the generation of institutions, values and norms as a reciprocal process, and that understanding is reciprocal.

4.2 Empirical differences

From an ontological perspective then, the interpretation of empirical phenomena in the stakeholder analysis will be very different. In Table 2, I outline some of these differences.

Table 2. Classical and neo-institutional stakeholder analysis

Theme	Mainstream approach	Neo-institutional stakeholder analysis
Ontological underpinnings	Rationalism, rational choice, methodological individualism.	Social construction, social choice, social institutions values and norms.
Role of state	Consensus, social contract, conflict manager and arbiter.	Conflict, no social contract, contradictions, conflicts reflect social structures/agency, state part of conflicts.
Politics	Instrumental, strategic; seek consensus and "optimal solutions". Emphasis on duties; no right without a duty.	Comprehensive, encompassing, inclusionary; self-empowerment and rights-based. Participatory approaches.
Governance	Separated levels - international, national, local, micro level focus. Governance as a reasonable distribution of resources. Participation as a means/instrument.	Multi-level governance approaches, fuzzy/messy interactions, local and global interconnected. Participation and involvement as separate goal.
Power and control	Transaction cost focus, elites, community leaders. Powers from formal rights and responsibilities and people relate to these in the same way.	Differentiated actors, conflict, bargaining, negotiations and power relations central. Responses socially dependent and varying.
Knowledge	Linear transfer, science as major joint source of expertise. Stakeholders access same knowledge and relate to knowledge in same way.	Multiple sources, plural and partial perspectives, negotiated understandings. Not shared knowledge, and more emphasis on local knowledge and experience-based knowledge. Knowledge as power forming relationships and responsibilities.
Community	Local, specific user groups; homogenous, bounded, participation as common practice.	Multiple locations, diffuse, heterogeneous, diverse, multiple social identities; participation sensitive to local power relations and groups
Institutions	Static, rules, functionalist, formal. Important to formalize participation.	Social interaction and processes, embedded in practice, struggles over meaning, formal and informal, interlinked with knowledge and power. Participation as interpretive, interactive slow process of social change
Organisations	Appropriate and necessary means to formalize social institutions/secure formal repr. and participation. Member because pays off.	Local heterogeneity and asymmetric and existing power relations make new organisations on top of old, existing organisations and institutions important and problematic. Member also because social obligations, belonging etc.
Property regimes/rights	CPR as a set of participatory rules based on collective action outcomes; clear boundaries, memberships, access rights and duties, monitoring, sanctions	Practice, not rule determined, strategic, tactical, overlapping rights and responsibilities, ambiguity, inconsistency, flexibility; more fluid participation.
Legal systems	Formal legislation anchoring participation rules and institutions. Formal legal binding rules.	Law in practice, different systems co-existing more flexible and dynamic systems for participation. More emphasis on informal institutions and interpretation.
Resources	Emphasis on material, economic outcomes, direct use-value, property outcomes of participation.	Material, but also symbolic values, with meanings locally and historically embedded and socially constructed. More emphasis on distribution and power relations in participation than only outcome.
Livelihoods and nat. resource use	Links between single resource and use (e.g. rangeland, forest, fisheries) forming narrow participation mode	Multiple users, complex and diverse livelihood systems, forming encompassing, locally adapted participation through empowerment/ negotiated rights

Partly based on Leach et al 1997, Vedeld, 2002, Woodcock, 2002

The classical NRM stakeholder approach has been criticized and further developed by a number of scholars. An important line of critique has come from scientists with socio-cultural perspectives; and there is another line of critique from ecologists. Some of these viewpoints are presented below. They are in line with "the environmental entitlement framework" as presented by Leach, Mearns et al 1997 and Leach 2002:71.

1. The most basic critique is that classical stakeholder and the NRM SA approach have a **rationalistic and reductionist approach** to social phenomena. Following this, the definitions of stakeholders and their returns, rights, responsibilities and relationships often become simplistic and do not cater for the complex practical or empirical realities and local heterogeneity that feature socio-cultural analysis of the same issues. Some examples of this:

  - Stakeholders' interests are often assumed to be static, clear and well- formulated in SA; failing to consider that stakeholders and related issues interact, bricolage and dynamically change over time.
  - There is often a lack of mapping of the key social institutions, especially the informal ones (regularized patterns of behaviour), that in many ways structure different groups of peoples' adaptations. There is a lack of attention to the informal institutions.
  - The processes and negotiations on how different people gain access to and control over the resources are often left out. The traditional approach assumes a more simplistic input-output model.
  - The detailed variations between stakeholders on which key endowments and entitlements are important for such a control is often neglected. This further relates to different stakeholders' capacities to be involved in the management, shaped by their social or institutional position.

- The classical analysis is mainly preoccupied with identifying simple trade-offs between interests and does not address key social relationships between stakeholders or the historical power relations that shape how certain perspectives and not least access to stakes come to prevail.
- Market solutions and prices are often taken at face value, not problematized as the social institutions they are and not studied as the asymmetric power relations they often reflect.

2. Lack of **historical context** is also seen as a major limitation of the classical SA. The classical stakeholder analysis is seen to be "relatively unconcerned about the longer term dynamics of ecological and social systems" also related to how it is perceived by different actors at different times (Mehta 2002: 71) Related to this point; there can be a lack of focus on how peoples' adaptations affect the ecological resources and ecosystem services over time.

3. The traditional stakeholder analysis should focus more on the systematic differences in **ecological** base found within different parts of a study area and variations over time and the implications for stakes, and for adaptations and use of resources. What are the important alternatives of livelihoods for various user groups in the area to sustain a livelihood? Are there big variations in **economic** and **social** dependency between different socio-economic groups? On scale, how important is the formal and informal access to the forest areas?

In the following, I move on to give a more detailed presentation of the neo-institutional stakeholder analysis alternative.

5. A neo-institutional stakeholder analysis approach

In this section we elaborate more on a neo-institutional analytical framework, still based on the 4´R approach. I believe this combination has potentials to address some major weaknesses of the classical SA approach.

5.1 A short introduction

Natural resource managers are preoccupied with governance of natural resources at stake. We can distinguish governance of natural resources in two steps; first the establishment of socio/political objectives and on the basis of that, establishment and maintenance of systems to attain those goals (Vatn 2005). Such systems can be conceptualized as resource regimes. They constitute of both the actors involved and the structures to facilitate their interaction. In general, institutions that are established deliberately to deal with NRM issues are commonly known as *resource regimes* (Young, 2002).

This also reflects a distinction between organizations and institutions. While organizations are seen as actors, institutions are the structures that facilitate their coordination, shape their performance and outputs by the respective norms and values. The institutions further coordinate interactions with other actors and the environment (Oakerson 1990, Scott 1995; Vedeld, 2002; Vatn 2005). In general, governance of natural resources therefore involves formation of resource regimes to facilitate both human-human and human-environment relationships, assemble the social and political priorities and resolve conflicts. (Vatn 2005, 2009, 2015). Apart from that, this can be formed through deliberate or formal, explicitly created institutions. There are also more informal and/or non-deliberate institutions that in many ways are much more comprehensive and wide-ranging than formal institutions, forming much of people's everyday life, goals, decision-making, interactions and outcomes.

In line with this institutional understanding, the stakeholder analysis becomes, therefore, more than simple mapping of the current actors in a given system at a given time. It is the aim in this section to elaborate a potent tool in analyzing governance of complex natural resources subjects.

In the subsequent sections we will start discussing an overall analytical model, then move to identifying the stakeholder and then lastly discuss four components: returns, rights, responsibilities and relationships and the 4´R analytical tool for stakeholder analyses (Dubois, 1997). We will use forests as a natural resources analytical variable to facilitate understanding.

5.2 An overall analytical model

In Figure 2 we propose a conceptual model, extending a framework for analyzing resources regimes (Vatn 2005: p. 283; and Vatn 2015:154). We shall return to this model after presenting the stakeholder analysis' key concepts.

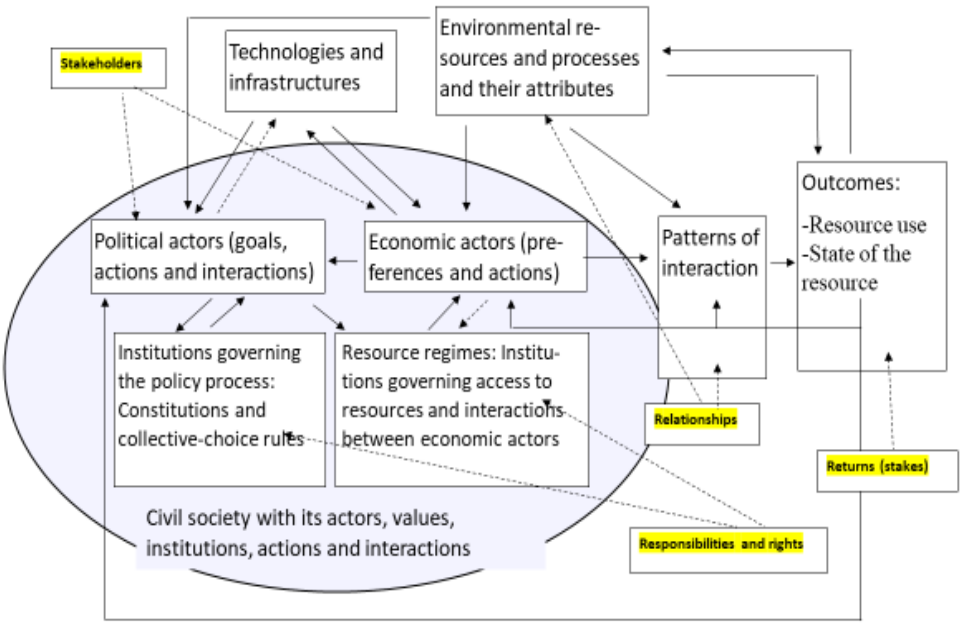

Figure 2. Stakeholders and the environmental governance model

The traditional NRM stakeholder analysis focuses on the scramble for resources and returns, and how different groups of involved actors position themselves based on particular assumptions around actor behaviour, relationships between actors and not least on rights duties in this context.

The stakeholder analysis thus requires attention on **Returns**, **Rights**/interests, **Relationships** and power and **Responsibilities**- the 4 R's.

A practical NRM stakeholder analysis approach would include the following steps (based on Grimble et al, 1995):

1) **Identify the main purpose** of the analysis.
2) Develop an **understanding of the elements of the system**.
3) Identify **principal stakeholders.**
4) Investigate stakeholders' interests, and their **rights and responsibilities**, characteristics and circumstances.
5) Identify patterns of interaction, the **relationships** between stakeholders
6) Analyze extent and distribution of **returns**; of costs and benefits for various actors
7) **Clarify options for management** in relation to what would be either privately or socially optimal adaptation; thus, letting options reflect efficient resource use.

5.3 The stakeholders

"The stakeholder is defined to be any individual or group of people organized or unorganized, who share a common interest or stake in a particular issue or system; they can be at any level or position in society, from global, national, regional concerns and down to the level of household or even intra-household. The stake may originate from an institutional mandate, geographical proximity, historical/identity association and dependence for livelihood, economic interests and a variety of other capacities and concerns (Woodcock, 2002: 17).

According to Borrini-Feyerabend (1996) the stakeholders are usually well aware of their interests in the management, they usually possess specific capacities, skills and comparative advantages (proximity to resource, mandate) and they are usually willing to invest specific resources to manage the forest or other natural resource (time, money, political authority) in this management. Borrini-Feyerabend (1996) and others suggest some possible criteria to differentiate stakeholders:

Table 3. Criteria for defining stakeholders

- Existing formal or informal **rights** to land or natural resources.

- Degree of socio-cultural and economic dependence/**returns** on the resource.
- Degree of effort and interest in management.
- Degree of access to the resources and distribution of benefits from their use.

- Losses and damages incurred in the management process and degree of **responsibility.**
- Present or potential impact of the activities of the stakeholder on the resource base.
- Compatibility of the interests and activities of the stakeholder with national conservation and development policies.

- Continuity of **relationship** (example; residents versus visitors or tourists).
- Historical and cultural relations with the resource at stake.
- Unique knowledge and skills for the management of the resource at stake.
- Relationships between actors relative to the resource.

Partly based on Borrini-Feyerabend (1996)

A categorization of stakeholders is thus complex and must be seen relative to the object of enquiry. For example, if we only use economic net returns to define stakeholders in relation to a catchment forest management analysis, important analytical and practical management points may be lost. But let me comment a few of the points made above.

- "In Africa, (maybe) as opposed to Asia, ***adjacency*** is a primary factor in social, ritual and product use of the forest concerned, with a clear and generally consistent decline in vested interest by distance from the forest edge...there is a much more active history in stakeholder analysis of local custodian interests by the adjacent community over the forest…. The logical starting point for community involvement in Africa is not the user or user groups, but the forest adjacent community - whether its members directly or actively use the forest or not" (Wily and Dewees 2000:27). But choosing a narrow adjacency

definition, such as only villages physically bordering a protected area- can still be the origin for substantial conflicts as also "not so adjacent" local communities may also have important relations to the forest.

- One major challenge in defining stakeholders is that their "**interests" are many** and often (even within group or household) internally competing. This can be displayed in terms of variation of their "interest" in time and space, (in some cases "option values") given that stakeholders, living in an uncertain environment, tend to adopt opportunistic strategies. Stakeholders also face situations where they individually/as a group have to make trade-offs between different sets of opportunities. A village with increasing land scarcity may feel forced to convert remaining forest commons to agricultural land for the new generations, even or also at the expense of increased time and costs of gathering fuel wood and other forest resource acquisitions for the remaining village population.

- In some cases, there are particular groups that are at the front of an analysis, like small-scale resource-poor people in poverty assessment analysis. These may be called primary stakeholders, as opposed to secondary stakeholders. Again, some actors may not be "primary" for one particular use of a resource, but for other parts of the forest resource assemblage. An actor may for example not be interested in the wood resource itself, but in the water retained through the catchment forest function or other ecosystem services, like mushrooms, of course.

-We could also distinguish between those who *affect* and those who are *affected (positively and negatively) by* a decision. Grimble and Wellard (1997:176) term these groups active and passive stakeholders. Again, some actors may both be those that affect and are affected by a certain course of action; cutting down a tree may block or destroy the waterways to one's field.

-We can also talk about the relative importance and influence of stakeholders; the *importance* relates to how much the stakeholder needs the resource; the *influence* relates to how much the stakeholder will be able to control outcomes of a process or access to a resource. ODA (1995) advises us to use a graph to display this:

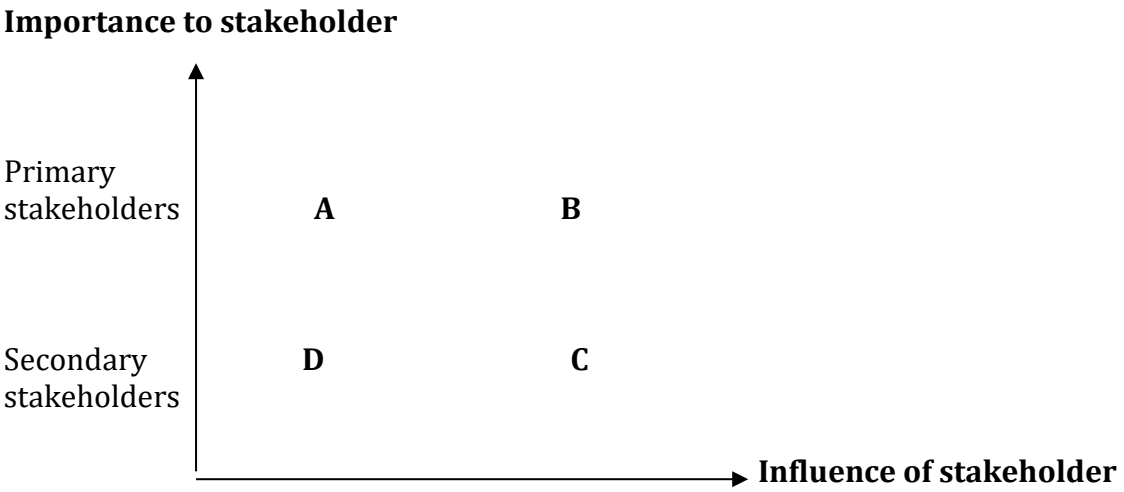

Figure 3. Stakeholder classification according to influence and importance (ODA,1995)

Stakeholders in A would have high interests and low influence, such as resource-poor households, indigenous people, female headed households and women; while C might be a conservation NGO with good connections to the political system. B could be rich, local merchants maybe even involved in (illegal) timber trade with good connections; while D could be local level public servants with fixed salaries and with little interest in forest resources.

In general, it seems reasonable to **distinguish stakeholders according to their degree of interest** and that stakeholders who score high on a number of issues referred to in the box above, could be termed primary stakeholders, whereas others with maybe one or very few "stakes" could be secondary stakeholders. This is related to that in order to be, become or maintain the status as a stakeholder, one has to invest time and resources to maintain the claim for such an interest.

Recent research has increasingly documented that local communities only in few cases should be treated as one **singular stakeholder entity**. Local communities are complex and heterogeneous along many dimensions. The old "harmony" model of the village as a homogenous entity of (poor) actors with the same interests has been abandoned.

The communities are not bounded homogenous entities, but socially differentiated and diverse. Gender, religion, caste, wealth, ethnic groups, in-migrants/origins, age groups, marital status, education and other aspects of social identity divide and cross-cut so-called community boundaries.

"Rather than shared beliefs and interests, diverse and often conflicting values and resource priorities pervade social life and are struggled and bargained over… social and environmental differentiation suggests that there may be many possible problems for different people" (Leach et al 1997).

A model of "**village politics**" reflecting the substantial internal conflicts has replaced the traditional harmony model for describing stakeholders (Vedeld, T. 2000). The conflicts inside a local community relate to cultural, ethnic, political, social and kinship dimensions. It also relates to differential access to endowments such as land, capital and labour. It further relates to variations according to age groups, education level and occupation (status and roles). In other words; the local community stakeholder analysis needs to encompass such local heterogeneity. We cannot a priori assume local communities to have one or a common interest or stake in the forest. The type and degree of interest lies at the heart of differentiating stakeholders. Several of the social aspects of identity mentioned above, should furthermore be seen to portray dimensions of the relationships between actors and the resource base in question rather than defining them as categories of stakeholders.

To sum up, it is too simple or narrow to define a stakeholder only in relation to his interest or stake in the resource. Also, contextual issues around rights, responsibilities and relationships must be considered when defining both primary and secondary stakeholders.

5.4 The returns

The Dubois approach: *The return or stakes relate to the gross and net returns of goods and services that an actor or groups of actors are able to withdraw from a particular resource. I use the concept of returns in this section to adhere to the four R's.*

The returns can be in kind and consumed directly or they can be goods that are taken for further processing and sale; or sold directly as they are. Some goods can be sold directly to consumers, other goods enter into more or less complex market value chains, often with a variety of stakeholders involved. The forest goods are both timber and non-timber goods (NTFPs). The NTFPs "encompass all biological materials other than timber which are extracted from natural forests for human use" (Woodcock, 2002). Broader ecosystem services relate to functions such as water catchments, soil erosion prevention, biodiversity values, cultural values etc. Returns or interests may be both material and immaterial.

The latter immaterial would involve values such as sacred groves, places of worship or ancestral trees and also the sense of place, belonging and lived lives; what has been called the identity landscape. An interesting quote from Wever-Rabehl, 2006, highlights this; "*For many people I have spoken with over the years, the experience of losing their homes and homelands was tantamount to the loss of "everything". It was a complete loss, which signified the loss of natural, historical, familial, social and physical roots. They lost themselves. Being torn from the familiarity of space and landscape, the living preservation of the past, tore the expectations for the future to shreds as well. For many, the idea of home diminished to a mere echo in a distant memory".*

The returns are also related to different actors' capabilities to realize their interests in the face of other actors and their interests. The stakes should also be seen as both flows and stocks.

A stakeholder analysis tries to put stakes on scale; to study the relative economic and socio-cultural importance of various resources for different groups of stakeholders. Economically speaking, the main stakes for the wider society will relate to the water retention properties of the forest resources for water supply and for energy, climate mitigation, and to timber and poles and national and global biodiversity values. For many local communities, access to fiber, fuelwood, wild foods, and grazing resources (NTFP) constitute the key resources - from an economic point of view.

In the literature, a field we may term the "environmental income field" has emerged where focus is put on returns or incomes from the environment, and through a series of studies it is documented that environmental incomes prove to be much more important than previously thought (Vedeld et al 2004, Sjaastad and Cousins 2008, Vedeld and Sjaastad, E. (2013).

Some 15-30% of people's total incomes in rural areas in developing countries tend to come from forest related resources, and poor people generally depend more on these activities than more wealthy people, indicating a relatively higher "stake" in such resources among the poorer segments. The focus on these items in the environmental income literature also dwells on how these incomes or stakes are related to diversification

strategies, to cash and current consumption and also in relation to coping, safety functions and also accumulation strategies. One further looks into differential access and use of different types of such resources, where typically fuelwood, charcoal, fodder and wild foods constitute items for poor people's stakes, whereas illegal timber trade, illegal bushmeat trade and other more profitable activities are controlled by more well-to-do households (Vedeld et al 2007; see also Connor, Vedeld and Trædal 2015).

In household economics, there can often be different logics between cash and subsistence incomes. If returns from natural resources to a household are mainly, or for a large part, subsistence, it means that market prices (and profit maximization behavior) would not matter much for that part of the household income, so that trying to put a market value on the total returns can be difficult.

Some returns may not count much in economic terms, but due to limited access to substitutes they are of outstanding value for the stakeholder. Water is one such return that is generally relatively cheap to tap, but there are often no alternatives to water as a domestic source of drinking and other uses. The same applies to fuelwood in many developing countries. The classical stakeholder analyses, putting the returns on economic scale, tends to undervalue access to such essential, non-substitutable goods for the respective stakeholders.

Table 4. Relationships between returns and stakeholders at different levels

Continuum level	Examples of stakeholders	Environmental returns
Global and wider society	International agencies Foreign governments Environmental lobbies Future generations	Biodiversity conservation Climatic regulation
National	National governments Macro-planners Urban pressure groups NGOs	Timber extraction Tourism development Resource and catchment protection
Regional	Forest departments Regional authorities Downstream communities	Forest productivity Water supply protection Soil depletion avoidance
Local off-site	Downstream communities Logging companies and sawmills Local officials	Protected water supply Access to timber supply Conflict avoidance
Local on-site	Forest dwellers Forest fringe farmers Livestock keepers Cottage industry Rich/poor/Old/young/ethnic	Land for cultivation Timber and non-timber forest products Cultural sites

The stakes from the forest can also vary considerably just within one protected area. Going from east to west in an area, the annual precipitation can vary from 5-600 to 2000

mm. This impacts the economic potential of resources inside the forest. It also impacts what people who live on the forest fringes produce of values on their farms. It also means that the relative value of labour on farm activities relative to the value of other activities often vary considerable within one area. It further means that a forest resource that is considered very valuable in one part of a protected area, could be considerably less valuable on the other side of a protected area. An example from Mt. Elgon NP in Uganda, where sticks for supporting bananas are held in high value on the one side, has little value in the drier areas on the other side where bananas (and sticks to uphold the bunches) are less important. It is also a point that households with substantial differences in asset access composition, will see and value natural resource stakes differently.

A particular but common phenomenon around forest use, is deforestation where land is cleared for agriculture. It is still a main driver behind deforestation and important in land degradation and land conversion to agriculture. This is true in Africa, but also important in other places (Vedeld 1995, Angelsen and Kaimowitz 1999, Laconte 2009). The stakeholder analysis of these processes and drivers behind them are complicated because it is commonly the case that with land conversion also follows a change in land rights and formal stake access. The new agricultural land user then assumes control over what previously often were village commons or more open access type land where stakes had a different distributional profile (Vedeld et al 2004).

Lastly, returns relate to both **material and immaterial** goods and service that accrue from the forest. The goods and service can be for subsistence or for cash purposes. Different stakeholders at different levels, in different villages and also within villages often have different interests in the same resource. A major challenge in a comprehensive stakeholder analysis is to meaningfully compare the material and immaterial stakes we have discussed above in themselves and not least as assessed by different groups of stakeholders.

The Millennium Ecosystem Assessment was launched in 2005 and was followed up by The Economics of Ecosystems and Biodiversity (TEEB programme, TEEB 2010). It launched a conceptual framework to bring forward links between ecosystem services and human welfare (Figure 4). This was done through processes of *recognizing* the values (stake), *demonstrating* the values and *capturing* the values through integrating and internalizing these values (stakes) in private and public decisions.

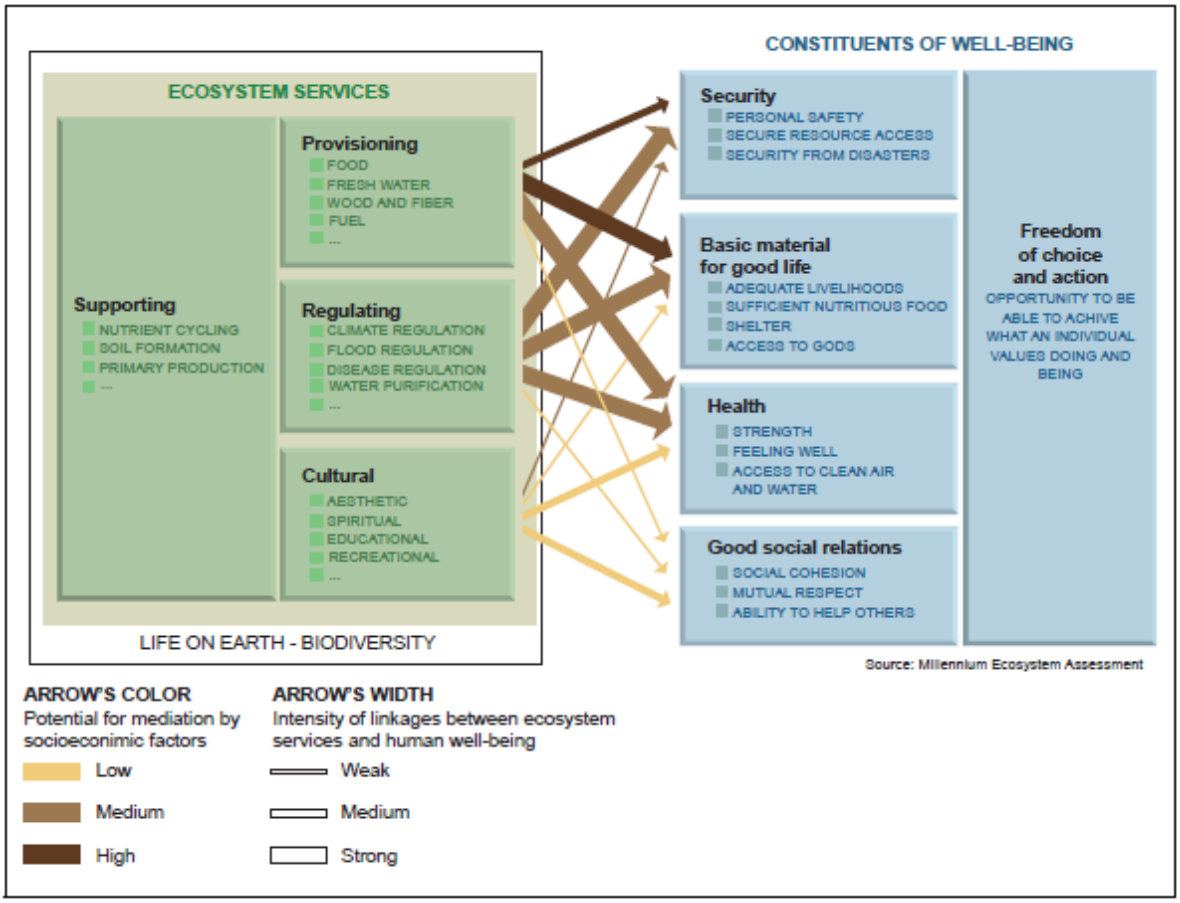

Figure 4. Links between ecosystem services (stakes) and human welfare (TEEB, 2010),

To sum up. Returns are complicated both to qualify and to monetary quantify in consistent ways. The returns will vary:

- Across ecological conditions and properties of the resource.
- Across different socio-economic groups (asset access).
- Across different uses of the same resources (forest versus agricultural trade-offs).
- If they are of interest for cash or subsistence uses.
- If the resource is purely economically assessed or seen as entrenched in a broader socio-cultural valuation setting.
- If distinguished between total and relative income for different groups.
- The comparison of local and global values.
- Issues around non-substitutable resources.
- In time and space.

This warrants a careful assessment of "what the stake" really is concerning content, shape, scale, size etc.

5.5 Rights and stakeholders

In the classical stakeholder approach, rights were perceived as mostly clearly defined sets of formally sanctioned rules/rights for access to and use of resources where the resources are allocated through clear and explicit systems for distribution of rights and duties. There

is often little emphasis on complex ecological systems and ecosystem services on the one hand. And on the other hand, there is a general trend to simplify human behavior and streamline institutions into formal systems and organisations, avoiding considerations of the many complexities of human social agency.

In the broader neo-institutional approach, we will not only see rights as formalized rights, but look into the broader economic, legal, cultural and political issues around rights; seeing rights as complex social institutions that need broader social analysis as part of the stakeholder research approach.

5.5.1 Social institutions and rights

A social institution can be defined as the "going concerns" that structure the relationships between individuals in society. A social institution may include both formal and informal rules and regulations, traditional social values, habits, norms and routines and acceptable ways to act. People grow up with and become "competent citizens" in such institutions. Thus, institutions both constitute, enable and restrict people (Berger and Luckman, 1967). The institutions can often be durable and maintained through sanctions and norms, and they form rules for what are considered appropriate lines of action. They are still flexible and open for change; they should not be seen as straight-jackets. They form reciprocal relationships - institutions impact man and man impact institutions. Social institutions can, for instance, relate to issues of local harvest from the local forest on what, who, how much or when to harvest. A property right is a social institution of great importance, not least in stakeholder contexts. Let us look closer at such rights.

5.5.2 Defining rights

A property right is a (formal or informally) recognized institution by which one actor has a dispositional right over a certain resource or a stream of values from a resource. The rights holder can exclude other actors from access, from use, from withdrawal, from management, and/or he may be entitled to dispose of the resource if he so wants.

Exclusion rights especially become important where the value of the resource is high, where enforcement costs are low, and when there is rivalry in consumption of the resource (Bromley et al, 1989, Randall 1987). Property and usufruct rights of various types regulate the relationship between actors concerning the rights and duties that a right encompasses. The wider tenure of a resource includes both questions of *ownership rights, usufruct rights, transferability and turn-over systems* and *the execution and control over the various rights to a resource* (Randall, 1987). In addition, we also distinguish between formal and legal rights and on the other hand more informal and often customary rights.

Legal rights are juristically or formally legitimate. But how various stakeholders perceive the legitimacy of different rights is a different matter. According to legal traditions, rights are legitimate only if they are established by legitimate organizations. However, there is an alternative view on legitimacy of rights. That is, a particular right is legitimate if it enjoys support from a relevant set of actors. In many (developing) countries with weak institutions, different customary rights are therefore perceived legitimate and enforced according to local customs. In Norway, we have the "right of way" allowing citizens freedom to move freely across and within private property and there is also a variety of commons with sets of legitimate, but often informal, rights.

When, or if, local communities have been deprived of their rights through legal or other processes, the legitimacy may become more contested. An example of that is the many protected areas in developing countries where local people had both legal, formal rights or informal, traditional rights of access and use of such areas. Introducing protection regimes has implied excluding local people from their former homesteads, land and other resources. Such action from the government can be juristically legitimate because the constitution may grant the state the right to dispossess or evict people from what the state sees as its land. However, such measures, and the lack of participation and compensation measures, will often lack legitimacy (following customary law and local institutions) among local communities.

Rights thus draws attention to the tenure issues as crucial in shaping people's differentiated concern with and capacities to manage land and trees. There are diverse types of property and usufruct rights that frequently co-exist, they are often legitimized by different institutions, and there are the fluid processes through which rights are negotiated and renegotiated.

One may differ between four types of property right regimes: private, common, state and open access. According to Woodcock (citing Dubois, 1997), this is not a good distinction for certain purposes, as the definition tends to create confusion between private and individual ownership (Woodcock, 2002). A group of individuals can easily hold a private ownership to a stake. The categorization also requires that one disentangles individual and groups rights in community-based systems. Village forests and access to forest resources often face such situations. A forest resource can be owned by an individual or by a group. Even a publicly owned resource may be leased by an individual or by a group of people.

To develop this further, let us return to the forest! There is a vector of resources emanating from a forest. There are often different types of rights and property regimes linked to these various vectors. *Particular trees* planted by an individual may be held as a private property ("labour input creates rights"); taking out fuelwood rights may belong to a group of villagers, whereas the mere access to the same forest may be an open access regime. If the *tree or forest resource* is used for subsistence purposes, the access is more often communal compared to if the use is commercial. Also, if the good in question is becoming scarcer (e.g. fuelwood), there is a tendency towards stricter user rules. There is furthermore a link between *land tenure* and *tree tenure*. Where land is privately owned, tree ownership is also often private. If land tenure is communal and strong, the planter of a tree may still often own it. If the communal system is weak, the ownership to the tree also often becomes weak.

5.5.3 Securing Rights

Rights can be weak or strong. Enforcing rights will mostly be found to be important if the returns on the enforcement effort warrant the effort. Communal and traditional local management systems, as any institution, may deteriorate or weaken over time. This, combined with weak enforcement of state regulations, has led to systems of "covert arrangements between stakeholders at the local level". An example is the replacement of official fines by using bribes and clientelism which have emerged in many places. The result of bribery and rent-seeking is, however, that the individuals will seek to access the

resource as quickly as possible, so as to derive the best and most out of it before leaner times, uncontrolled changes in authority, and so on (Woodcock, 2002:29).

This is an important problem facing many protected areas. Local people have been deprived of their traditional property and usufruct rights in many protected forest areas, and in most cases such deprivation has taken place without any kind of compensation. Such policy lacks local legitimacy and a variety of short-term rent seeking actions have been carried out or at least been supported by local people to the detriment of the forest resource base. In the stakeholder analysis, it is important to map the formal and informal rights of different actors, and also to get an impression of how stakeholders perceive the present right's situation. Rights are complex. And they are only important if respected by relevant actors and if they can be enforced.

5.5.4 Some economic issues around rights

The overall classical approach in economics would be that securing privatized rights is the most efficient way to secure "the stake". We shall discuss some economic issues around this assertion.

In property rights theory, an emphasis has been put on **physical properties of the resource** themselves and their impact on how we establish, manage and enforce rights around them. Physical characteristics of resources have bearings on why and how rights are established.

In a stakeholder analysis, these issues should be dealt with separately, describing the relevant physical features of the natural resource at stake. Certain characteristics of the particular resources and the physical and social context impact on how society chooses to organize management, ownership/use-rights and decision-making arrangements.

Table 5. Relations between rivalry in use and cost of exclusion

		Costs of exclusion (TC)	
		Low	High
Rivalry in use/ consume	Yes	1 (Private goods)	3 (Common pool resources)
	No	2 (Club goods)	4 (Public goods)

Based on Randall, 1983 and Vatn 2005

If the goods' physical characteristics are such that one person's consumption of the good reduces another person's possible access to the same resource, we have **rivalry** in consumption and in access to the stake (Table 5). An example is a pasture with too many animals leading to scarcity of the resource (grazing land, water, forest). The resulting scarcity becomes a management challenge. No scarcity - no stakeholder management problem. For a common pool resource, scarcity following rivalry in consumption is such a problem. The same goes for emissions to water bodies resulting in water scarcity. There can also be non-rivalry in use of forest resources such as scenery values.

Physical characteristics of the resource can inhibit or constrain the **exclusion of others** from the resource (free right to travel at sea, air, access to rainwater). The reasons for a lack of ability to exclude can be several: it can be *technically* impossible. But it can also be technically possible, but *economically* prohibitively expensive to exclude others from use (prevent access, control use). Excludability is better understood as a transaction cost continuum rather than a dichotomy: high and low costs of exclusion relative to issues such as demarcation, contracting, controlling, policing.

A use right or property right is a social institution requiring a guarantee or legitimacy. The right thus emanates or is devolved from the collective towards the individual. Physical control is not sufficient! We differ three (four) types of rights:

- State property: the state has property right.
- Private: private individuals have property right.
- Common: a group has property right.
- Open access: there is no property right.

All types of property regimes express and define relationships between owners; on rights of access to capital and rules for management, for use monitoring and controls. They reflect systems for command and control. In stakeholder analysis, the property right situation is crucial in analysis and in finding solutions to conflicts over stakes.

Before we discuss this further, we stress the difference between classifying goods according to some physical characteristics of the resource and on the other hand the issue of defining property rights. It is not so that private goods become private property, public goods become public property etc., as can be seen in literature. As Vatn (2015) states; "Characterizing resources and defining property rights are two different things". But there are some possible links.

Rivalry and costs. When we have **rivalry** in use, external effects often become a major challenge as the use often reduces the quality or quantity of the resource. When we have rivalry, but **low** costs of exclusion (easy demarcation etc. with small external effects), we may often find private property - because it economically pays off to exclude others.

If there is rivalry but **high** costs of exclusion, large external effects, there will be challenges in establishing private property. Over-exploitation may also become a rational adaptation. It will also be so that the more valuable the resource, the higher the transaction costs that can be tolerated.

When we have **non-rivalry,** we usually do not have an allocation problem. But one may see problems in terms of "optimal production levels of the (collective) good". Military, cultural landscape, who pays, who gets. People use or utilize, regardless if they pay or not.

Exclusion costs. When there are **high exclusion costs**, relative to values, we often find Common Property regimes. If the exclusion costs are high and the values are high at the same time, we either see private or common property. If the exclusion costs are low and the values are low at the same time, we either see open access or state property. If the exclusion costs are low and the values are high at the same time, private property is often found.

Other issues. A resource may "shift" from being managed under a club good regime over to a common-pool resource regime if number of participants is not kept down (lack of exclusion) and if the resource is overused (rivalry – e.g. fish, pasture, pollution levels). The stakeholder situation changes.

A common-pool resource is not an open access resource! A common pool regime implies private property for a group of people according to certain rules (exclusion)! Such rules include membership regulations, distribution of rights and duties, monitoring and control mechanisms, sanctions and systems for governance etc. In a common pool property regime, one thus has a limited amount of resources and restrictions on memberships; both give good potentials for conflicts! A lack of possibility to exclude leads to situations of "structural" scarcity and misuse - and inefficient resource use. This is an important part of stakeholder management challenges of certain resources.

Many resources have a variety of potential benefits - and costs and rights/property regimes can often be found to vary; as for example with different forest resources within the "same forest".

Different regimes also have different distributional effects; private property easily leads to increased social differentiation, and loss of social security for landless/ rightless people, thus defining particular boundaries for those who are stakeholders. Common property regimes assume co-operation and are often constructed to handle externalities and effects of cost-shifting. They may however also fail in face of external uncertainties or changes in the resource stocks.

A point made by Pacheco et al 2009, is the tendency of informal rights structures to be challenged or changed as a result of commoditization of forest resources where economic stakes increase and/or where external powerful actors infringe on traditionally local community managed and controlled areas and resources.

The selection of institutional frameworks, authority and structures for ownership and management have bearings on patterns of distribution of costs and incomes derived from the resources for different stakeholders. In this context, the substantial costs of a formalization of rights is a major concern (Sjaastad et al 2008). Taking this further, one can argue that private property does not cause or lead to efficient resource use but rather, and somewhat in contrast, the physical properties of the resource in terms of degree of rivalry (value) and exclusion costs drives certain scenarios to privatization. For some types of resources and in certain settings, private property will not ensure efficient resource use, on the contrary. It is thus not the motivational or individual properties of the actors' factor that determine the profitability of different property regimes but these more basic underlying material factors. This line of argument has of course some interesting political connotations.

5.5.5 Legal dimensions of rights

Stakeholders and accessing rights. The classical stakeholder analysis often takes as a point of departure that rights should be clarified and preferably privatized and even individualized. This would be in light of increasing land scarcity, land use conflicts, and increasing individualization driven by population growth, agricultural commercialization and land alienation often related to conservation policies, development programmes,

hydropower etc. Securing rights and title deeds, following this line of enquiry, is seen as crucial for securing efficient investment levels, increased credit supply, consolidation of scattered property, efficient farm management and an increased tax base (see Sjaastad and Cousins 2008 and Platteau 1996).

In a neo-institutional stakeholder context, concerns would relate to:

- Formalizing title deeds underplay the role of informal norms and practices and may constrain flexibility of the latter.
- Formalizing title deeds excludes non-title deed holders (Benjaminsen 2002).
- There is no formal proof that formal title deeds give more access to credit, nor more active land transaction markets.
- Insecurity of formal title deeds under certain governance structures may increase vulnerability for small-scale farmers; one may encourage cooptation of processes by domestic (rural and urban) and other elites.
- If a widespread title deed for poor people is linked to a system of taxation, poor people may be increasingly impoverished.

(based on Sjaastad et al 2008)

Altering rights and duties reshuffles distribution of costs and benefits and changes different groups of stakeholders' abilities to realize their interests in the face of others.

In real life, there is a crisscross of different rights that define various elements of property and with multiple origins such as state law, customary law, religious law and informal local rules and norms. Rather than seeing rights as evolving linear from informal to formal, and from communal to private, the "evolution" can rather be seen as coexisting in a "given historical and spatial context" (Manji 2006). Cleaver, 2012 uses the concept of "institutional bricolage" to describe the evolution of multiple layers of formal and informal institutions also related to rights. Cleaver stresses that the classical stakeholder approach has an emphasis and preference for **building formal institutions** with an emphasis on contracts, associations, committees and property rights to reduce transaction costs and to institutionalise cooperative interventions. She also refers to Ostrom, 1990 and her design principles, that in essence argue that the "crafting" of formalized institutions by default will be more robust and long enduring (membership, clear boundaries, formal systems for monitoring and sanctions etc.) than the traditional (or weak) systems.

By contrast, Cleaver points to how she believes people really act in or through social institutions (social values, norms, conventions, social networks, practice). Institutional arrangements are rather seen as fluid, contested, interpreted, negotiated, multipurpose, complex, conditioned by practical everyday life and decisions are often made in multi-purpose arenas (compared to design principles). A belief that formal institutional (often organizational) structures and democratic representation or decision-making in public meetings yield access to rights and involvement is, in her opinion, naïve, as the formal organizations do not necessarily overcome exclusion, inequity or exclusion, especially because the "wider structural factors which shape such conditions and relations are often left untouched".

In a stakeholder analysis then, the legal aspects of types of rights for different ecological and socio-economic conditions should be explored and problematized, and it cannot be taken for granted that exclusive, private and individualized rights are both most efficient nor politically most legitimate, or just.

5.5.6 Political dimensions of rights

The establishment of different types of rights and the allocation of rights are crucial as legal policy measures and instruments. The way authority, rights and duties are distributed defines and directs formal political power. There is often too little congruence between distribution of costs and benefits; some get incomes - others get the costs. This is often linked to the distribution of rights - and duties. This reflects the will of the actors in power and the political power games and networks and who are empowered or marginalized.

In general, the formalization of customary land rights by the state is a challenge as a state is not only an arbiter but also holds specific own interests in land. One also changes the power base from the communities to the state with impacts both on legitimacy and effectiveness in management. An example from Uganda is when the president decided to establish a national park, partly in order to punish a group of pastoralists (Infield and Namara, 2001) "there were political motivations behind the declaration as well" (Mugisha 1993, see also Kamugisha et al 1997). The establishment of the park disadvantaged the Banyankole people, especially Bahima pastoralists, who were believed to hold anti-government sentiments.

5.5.7 Summary of rights and stakeholders

Rights are key to both defining what the stakes are and who the stakeholders are. And who controls, accesses and consecutively uses the "stake". We have briefly tried to put these issues into economic, legal and political contexts, showing a glimpse of the broader canvass necessary to deeper understand social contexts of stakeholders and rights.

5.6 Responsibilities

In a stakeholder analysis, you do not only look at rights, but also at distribution of responsibility, of duties and of resources allocated in different ways to ensure both rights and returns. In the classical stakeholder analysis, one tends to emphasize formal responsibilities or duties, as is often given or issued through legal and political mandates from outside and/or from above. With responsibility may follow authority to formulate, direct and take the necessary action to ensure the proper custody, care, and safekeeping of property or stakes entrusted.

A broader perspective of responsibilities will first of all stress that responsibilities are constituted to a large extent through traditional/informal institutions and mandates from "within" (and between) local communities. Social values and norms as part of both formal and informal institutions play important parts in defining and directing "responsible social and individual behavior. Tenure is one such social institution, but there are many important institutional mechanisms or bearings guiding "responsible behavior" at both individual and social levels.

Responsibilities may also be mediated through formal systems of both public and private governance.

One would in both informal and formal settings discuss responsibility around issues of power, distribution, justice and legitimacy.

There is a distinction as to where and from whom duties emanate from and accrue to. Duties can come from within; individuals and local level communities and institutions can formulate their own responsibilities; or they can come from outside and/or above; from government, traditional systems, donors. Power and duties are both vertically ascribed, but also horizontally spread out; geographically or between sectors etc.

Such ascription of duties may be linked to various stakeholders' relative power and influence; and, also their levels of competence, skills and capacity - and their social capital. There is also a challenge in such devolution: what is the purpose of transferring rights or duties? And, whose agenda is it meant to fulfil?

Commonly, we may think of the overall distribution of responsibility as between the state and other actors, both further down in the political and administrative systems as well as out towards private sector, NGOs, civil society including local, primary stakeholders. Do we see state initiatives such as joint forest management primarily as one of issuing rights or as one of placing a custodian responsibility in the hands of primary stakeholders? (Wily and Dewees, 2000).

This has to do with principles of governance; if the devolution of powers and authorities (rights and duties) from government to local people is seen as a "gift" or alms from government, or as an intrinsic right and/or a duty people are entitled to. This is also linked to the debate raised by Uphoff, 1992 and Pretty, 1995 on whether one sees local participation as a means to reach a goal of biodiversity conservation or if local participation is a goal in itself. It is also a question about the legitimacy of governance; it does indeed matter how the state treats its citizens. That people should be treated as citizens rather than as "stakeholder" - or "stockholders" (Etzioni, 1988).

The type and level of competence and proficiency is obviously important. In other studies, we have looked into the legal transfer of responsibility of protected areas from the Forest Department to the Wildlife Department in Uganda and a shift in legal status from forest reserves to national parks. Such changes in both organizational structure and competence as well as the legal status alters responsibility structures dramatically (Gosamalang et al, 2008). The stakeholder perspective of responsibility must therefore investigate what the change implies in relation to both economic performance, ecological effectiveness and not least in relation to legitimacy and to how relations between governors and the governed changes character through redistributing of responsibility.

In debates about rights-based development, some have argued that there can be no "right holder without a duty holder". This assumes some kind of individual duty holder to match any issued right. In general, collective actors such as a community or the state can issue rights for people in general without pointing the finger at particular individual duty holders. This easily becomes a way to ignore or downplay issues of rights. At large, one may still ask, in line with Ostrom (1990), about congruence between appropriation and

provision - between rights and duties. One can then talk about public or communal obligation holders.

In a process perspective, responsibilities are present throughout policy processes, from goal formulation, identification of measures and instruments, generation of a governance structure and over to monitoring, verification, controlling, policing, sanctioning and evaluation.

To sum up, A focus on responsibilities is crucial in stakeholder analysis, in discussions around both rights and returns. Responsibilities are ascribed both through formal and informal institutions, and a research focus would be on why and who are given responsibilities for what; looking into issues of power relations and mandates, interests, rights and issues around justice and involvement. Social institutions, values norms and conventions play important roles in such analyses.

5.7. Relationships, cooperation and conflict

5.7.1 Defining the concept

A relationship defines an association between actors, individuals or groups of people, and in the case of stakeholders: between different stakeholders with both similar or different or even competing interests, rights and responsibilities relative to the stake in question. The main focus in the classical stakeholder analysis is on service or legal/contractual based relationships and/or relations that are formally, market related, public or at least contractually founded.

In the broader stakeholder context, one could see relationships in an institutional context; on joint or conflicting interests derived from economic, cultural, ethnic/kinship, social or political institutions. Or relationships can be related to social commitments or other immaterial reasons. They may also be based on symmetric or asymmetric power relations. They may be regulated, maintained, managed, revised by formal (legal) or informal institutions. They can be both productive and destructive; in the sense of reflecting power asymmetries, power misuse, mutual distrust, co-dependence. Interdependence features relationships where people regularly interact, inform each other, influence each other and share experiences, thoughts, ideas, emotions, norms, ideologies etc. Relationships are dynamic and change over time with both internal and external factors and must be seen as processes of (slow) social development or change. In a stakeholder context we try to qualify relationships in relation to whether they are formal or informal, weak or strong (often featured by frequency of contact) and or if they are seen as "good, fair or poor" by involved actors (Dubois 1997).

5.7.2. Relationships in stakeholder analysis

One can in principle define two types of relationships of importance for the stakeholder analysis and natural resource management:

1) Stakeholders' relationship to the environment or the natural resource
2) The relationship between people relative to the natural resource

Different actors may have different relationships to various goods and services based on types of resources, historical systems of access and resource use, on socio-cultural issues, competence etc. There are historical, socio-cultural, economic and legal dimensions of this relationship and the strength/power and capabilities of different actors will determine their differential abilities to realize their interests relative to other actors. These relationships can be conflict ridden and unsettled, they can be settled through trade-offs or they can be one of cooperation and mutual benefits relative to other groups of actors.

5.7.3 Relationship between stakeholders and the environment

Local people have grown up with the forest and natural resources and inherit, learn and gain experience-based relationships with the forest and its various resources, where indigenous, local- and tacit knowledge/"skills-based competence in use" is a predominant feature (see Molander, 1993, Knorr-Cetina, 1981; Vedeld et al 2003). On the one hand, many resources of economic and practical value are derived from the forest. The relationship is also one of mental identity, often tightly knit to material uses and interests. For forest- and adjacent communities, the forest often forms a cornerstone in their lives. However, much of the forest land has been governed and guarded by the government and people have even been kept physically apart from the forest. Traditional knowledge and skills are lost in such alienation processes. The state driven alienation of people from forests has furthermore left deep scars in people. It has, moreover, been a policy that has distinctly lacked local legitimacy.

People's relationships to the ecosystem services in the forest are closely linked to their ideational, normative and even religious perceptions. In many ways, religious beliefs and practices reflect or at least are strongly influenced by their practical life, and vice versa. Research from East Africa reflects that the customary religion is pantheistic, where everything in the universe has vital energy and interaction strengthens this. Certain places and things (trees) are more associated with God than others. Trees and mountains form objects and arenas for worship, healing and regenerative powers. Woodcock (2002) refers to Routledge and Routledge (1910) and Burnett and Kang'ethe, 1994, from Tanzania, that certain types of forest clearing have been seen important to avoid, and to the extent necessary, special precautions had been made by local people. The present management is far apart from the traditional customary management, and Burnett and Kang'ethe (1994), advocate for an African philosophy of conservation and natural resource management (Woodcock, 2002:24) that is distinctly different from the "Fortress Approach" (Hutton 2007).

Local people are by no means homogenous in their relationship to the forest. Some people and tribes have much stronger traditions, skills, knowledge and interests in the forest and NTFPs even if the adjacency can be the same. So, some local people may have little interests in the forest, whereas for others it can mean being deprived of a main source of survival and livelihood.

Such differences can often relate to life modes and types of production systems and thus to people's everyday practical encounters with nature; one may for example expect systematic differences between pastoral, agro-pastoral and agriculturalists in their relationships to nature (see Berkes, Colding and Folke, 2000. They describe activities such as "multiple species management, resource rotation, succession management, landscape

patchiness management, and other ways of responding to and managing pulses and ecological surprises". They describe further "social mechanisms behind these traditional practices including a number of adaptations for the generation, accumulation, and transmission of knowledge; the use of local institutions to provide leaders/stewards and rules for social regulation; mechanisms for cultural internalization of traditional practices; and the development of appropriate world views and cultural values".

Institutional or cultural differences between groups concerning relationships to nature can also be found within and between public bodies and different management or administrative cultures. The Ministry or Department of Environment has a mandate to protect the catchment forests from misuse and to maintain both biodiversity resources and important water catchment functions. The more operational parts of a Forest Department (FD) have a much more use-oriented relationship to forests. The FD has had a culture for "a stick and fence" policy and has had, and sees, as its main function to prevent use of resources from the catchment forests (see also Vedeld, Krogh and Vatn 2000; Vedeld et al 2003).

5.7.4 Relationships between stakeholders relative to the forest

The relationship between actors relates to issues of rights, responsibilities and returns between actors as they are embodied in tenure regimes. A traditional tenure regime, being a social institution, is defined (by Shepherd et al 1995) as "socially defined rules for access and rules for resource use that define people's rights and responsibilities in relation to resources". Contrary to the modern conception of tenure rights, the customary view relates more to secure social relationships and not only to "the spatial aspects" (Dubois, 1997).

Common interests, harmony and agreement may often feature the relationships between various actors relative to the forest. People do relate and co-operate.

It is, however, easy to forget harmony when you are a critical social science researcher "looking for trouble". But harmony and learning from good cases, as fi. Ostrom does in her "success design criteria" is thus also important to remember. However, or on the other hand, the relationship may also be one of conflicts and/or trade-offs. *Conflicts* occur when stakeholders are in situations of competition and/or when there are disagreements between groups. *Trade-offs* can be seen as processes of balancing conflicting objectives. Whereas conflicts imply more than one actor, trade-off situations also imply a single actor or even a unified group.

Conflictual relationships may be linked to some of the following issues (based on Ayling and Kelly, 1997, Ostrom, 1990, Bromley, 1989):

1) **The resource base is uncertain.** Forest resources are thought to be renewable, but this depends partly on natural variations, on the level of extraction and use. One may experience **supply-induced** scarcities when use is higher than regeneration. If pressures for use are high (implying **demand-induced** scarcity), the conflict potential will rise relative to *where* one may withdraw resources, *what kind* of resources, *how much* and *when*. This also relates to that use being rival in consumption; a forest cannot both be an important biodiversity hotspot reserve

and an extensive grazing ground for small stock at the same time. The resource base becomes a potential ground for conflictual relationships.

2) **Ambiguities over rights:** the less clarity over formal and informal rights, the higher the conflict potential in relationships is. Such rights may be anything from *who* and *how many* have the right to access areas (legal/local authorized user), the right to withdraw certain resources (claimant), the right to manage, the right to exclude others (proprietor), and the total control over the resource including disposal (owner) (Schlager and Ostrom, 1992, Dubois, 1997). Rights are often contested among stakeholders and they are often better understood as issues for processes, for negotiations, deliberations and interpretations rather than as clear-cut and well-defined rules (Cleaver 2007). The rights situation, emanating from a particular historical, socio-economic and cultural setting, can furthermore induce what could be called structural scarcity; where there is an asymmetric distribution of the resources between different stakeholders. Such situations tend to give rise to high conflict levels.

3) **Balancing rights and duties:** The less balance one finds among stakeholders concerning appropriation and provision of the resource and the return, the more conflictual relationships will be likely to arise between stakeholders.

4) **Weakened local mechanisms for monitoring, controls and conflict resolution:** the less legitimacy and effectiveness of such relational institutions, the more ambiguities and conflicts will arise.

5) **Nested systems of authority:** If the market values are high for forest products, actors from outside tend to intervene, and one often gets a multi-layer system of actors and relationships with different interests trying to access and control the resource. Conflicts occur very often in such situations where there is no "widely recognized resolution procedures in place; several parties may be involved which vary in power, strategy, goals, ideology and level of organization, and the issues are frequently multiple, intertwined and complex" (Ayling and Kelly, 1997).

Conflicts can be constructive when a goal is realistically attainable. They can, however, also be destructive in the sense that there may not be any possible solution at all. Conflicts can also be anything from non-violent disputes, to acute conflicts where people engage in incompatible activities, or to the extent where there is civil violence, disobedience, military actions, legal actions, non-violent protests etc.

Table 6. Trade-offs of conflicts between stakeholders at different governance levels

Level of governance	Trade-off between interests	Conflicting actors
Macro-macro	Between policy objectives (environment vs. development)	Between national institutions or line departments (agriculture vs. forest)
Macro-micro	Between national and local interests ban on forest clearing affects cassava production)	Between national institution and local people (eg. Forest department versus farmers)
Micro-macro	Between internalities and externalities (a farmer uses pesticides affecting biodiversity)	Between local people and "society at large" or farmers and environmental lobby groups
Micro-micro	On-farm resource allocation (short term vs. long term, forest products versus cash crops)	Between different groups of local people (farmers versus pastoralists over use of forest land)

(partly based on Grimble et al, 1995)

Micro-micro level conflicts occur between local user groups; for example, nomads versus agriculturalists. A micro-macro conflict can be when local farmers encroach central government catchment forest reserves. A macro-micro conflict is found when for instance a catchment forest reserve officer on behalf of the government bans local people from taking out dead fuelwood, grass or fallen logs from a catchment forest. A macro-macro conflict would be if, for example, the wildlife authorities want to convert a catchment forest reserve to a national park, or when there are conflicts between the Ministry of Environment and the Ministry of Trade and Industry over levels of permission for forest exploitation.

Trade-offs have to be made by stakeholders for different objectives. Planting trees on own land compared to harvesting the tree in the forest and bringing it back to the house is one example. A catchment forest officer allowing people to fetch fuelwood knows that if he says no, people will still enter and may do more harm to the forest through illegal harvesting than through making an agreement to allow for deadwood collection. At a macro-level, deciding upon land use for conserved forest, forest plantations or conversion to agricultural land implies a macro-level policy trade-off decision.

Mutual interests can occur in different forms and in different constellations. It could be rural development agents and poor local people, but also rich local merchants involved in illegal timber trade together with corrupt officials or politicians.

Power. Special attention should be paid to the nature of the power relationship. Three key questions must be answered (GTZ 1996):

- On what basis is power built?
- How does power affect the relationship?
- When and how do power relations change?

Regarding the first question, power often results from some type of economic dependency (e.g. financial dependency), social (e.g. hierarchical dependency, expertise) or personal (e.g. dependency because of nepotism, cronyism, etc.). Dimensions of the relationship must be assessed to determine the source of power.

Power can affect relationships in three ways: physically, materially or in terms of social status.

The third question helps us understand how best to induce changes in an attempt to rectify the imbalance in stakeholders' "4Rs". For instance, one of the key limiting factors to improving relationships in forest management lies in the difficulty for forestry staff to change their actions and attitudes towards local communities. Even if the staff genuinely should wish to change, they have difficulties in putting into practice such wishes owing to lack of mandate, lack of time and resources, and often because of their negative perceptions on the part of local people, given past experiences. (Dubois, 1997*).*

5.7.5 Summing up relationships

There are two major relationships in a stakeholder setting: the relationships between stakeholders and the forest; and the relationships between people relative to the forest. Local people have grown up with the forest as an integral part of their life, conferring meaning, experience-based skills and identity. The concept of adjacency is also important as it relates to closeness, but it also relates to people living adjacent to the forest who often have stronger traditional rights to access and to manage the forest resources. Many of the conflicts relate to scarcity of resources, both within the forest and on the fringes. The present institutional arrangements, with the system for distribution of powers, authority, rights and duties around the forests promote rather than reduce conflict levels. There are also considerable challenges related to "actors at different levels in nested systems that both formally and informally, legally and less legally, involve in resource off-take and management" in ways that are not sustainable.

5.8 The stakeholder approach versus other approaches

The stakeholder process tries to analyze issues around the four R's in relation to the discussion regarding resource returns and issues concerning rights, responsibilities and relationships. A question arises if the four R's, in its constricted version or in its broader institutional version, is a useful tool in stakeholder analysis or if there are analytical frameworks available for the analyses that can compete?

At an ontological level one may talk about more general analytical social science frameworks such as Marx, Bourdieu, Foucault, Giddens. Or from this, more distinct, theoretical perspectives found within political ecology, political economy, rural sociology or institutional economics?

Or is the issue still so specified that a more detailed analytical approach is warranted? Below I have listed a set of possible theoretical approaches or models that are used for various aspects of governance and conflict issues.

If we return to Table 1 where we made a distinction between approaches that presume rationalist versus social construction on the one hand, and on the other hand approaches that are "narrow or broad", we see that the myriad of research approaches "on the market" are many and one should reflect on the choice of approaches in relation to objectives and inclinations of one's own research point of departure. These approaches

can partly be complimentary, both empirically and ontologically, but they can also be in logic conflict. They can also be used in comparative research to shed light on particular aspects of stakeholder analysis from different angles, both empirically and theoretically.

Table 7. Stakeholder analysis versus alternative and complimentary approaches

Approach	Origins	Examples of application within NRM related to stakeholder approaches	Ontological position
The stakeholder analyses	Grimble et al, 1997 Dubois, 1997 Woodcock 2002	Protected areas and local people Rural development Dev. project assessments. Conflict situations. The 4 R focus.	Originally rationalism Some later transform to social construction
The sustainable livelihood approach	Pretty, 1995 Chambers,1989 Ellis, 2000	Rural development. Incomes, poverty and environment. Motivation and adaptation studies. HH. and community levels. Original focus on returns; SC. more into relationships	Originally rationalism Some later transform to social construction
Systems approaches	Georgescu-Roegen 1971 Conway, 1985	Ecosystem services and wellbeing. Rangeland and people. Farming and land use systems. Focus on returns and relationships.	Rationalism /science
Farming systems approaches	Ruthenberg, 1983, Ellis 1993, 2000	Crop/ forest trade-offs and diversification. Rural development. More narrow on returns - and relationships.	Rationalism /science
Entitlement /endowment approaches	Sen, 1997 Leach et al, 1997	Assets building (stakes). Diversification/ differentiation. Environmental entitlements. Focus on relationships, returns and distribution.	Rationalism/Materialism science Some later transform to social construction
The narrative approach	Adams et al, 2002, Hutton et al 2007	Development strategies. Environmental policy strategies. Relationships, returns	Social construction
Common pool resources theories	Ostrom, 1990 Agarwal and Ostrom, 2001	Managing village commons. Rural credit systems. Relationships and rights.	Rationalism /science
Rights based development	Sen, 1997	Local people /protected areas; focus rights and responsibilities, relationships.	Originally rationalism Later more on social construction
Social capital	Bordieu,1971, Putnamxx	Rural development/local heterogeneity. CPR. Rights, responsibilities and relationships- and returns.	Predominantly social construction RC economists; social capital as intentionally built individual asset.
Actor-structure networks	N. Long, 1992	How farmers/actors meet wider society. Cognitive and transformative issues. Relationships,	Social construction
Economic valuation studies	Campbell and Luckert, 2002	Assessing trade-offs and efficient resource use. Focus on returns and man-nature relationships. Ecosystem services as relationships and returns	Rationalism
Game theory	Ostrom 1990	Takes up mechanisms around relationships, and distribution of returns and also rights and responsibilities	Rationalism
Resources regimes/IAD framework	Vatn, 2015 Agarwal and Ostrom 2001	Cover issues around governance, role of state, relationship between actors; properties of resource etc.	Weak SC

Partly based on Vedeld, 2017

6. SUMMARY AND CONCLUSIONS

The choice of analytical framework depends on goals and objectives for the study. The major problem with the classical stakeholder approach is that it is too reductionistic and narrow focused on certain key concepts. In efforts to save the classical stakeholder analysis, Grimble and Wellard, 1997 try to introduce a broader empirical frame with more variables and more context.

This does, however, not solve its problematic ontological positions, and it does at the same time remove the merit of a reductionistic and simple model that could have been applied in rapid, pointed or focused, low-cost field investigations or appraisals.

In the neo-institutional approach such as Woodcock 2002, a more realistic or at least a more comprehensive ontological point of departure improves the realism and the interpretation of stakeholders and their positions, but again at the cost of becoming more detailed, comprehensive and not least, from a research point of view, more expensive and less " to the point".

The neo-institutional stakeholder approach seems promising in handling particular research and development issues where complex groups of stakeholders relate to the same resources, and where relationships, rights, duties and responsibilities of different stakeholders are less than clear.

It is still an eclectic approach with a focus on certain key issues and with the four R's (rights, responsibilities, returns and relationships). There is no coherent theory on household adaptation that we find in a simple household economic model, in a livelihood model or in a more clear-cut socio-cultural model for adaptation (see e.g. Vedeld, 1998, Cleaver, 2007). The neo-institutional stakeholder analysis makes a switch from a rational choice-oriented model to an institutional or socio-cultural and more constructivist perspective.

This makes the stakeholder analysis more realistic concerning assumptions over human choice, structure and agency, but it also becomes less clear and less operational, especially for non-professionals wanting to carry out quick surveys or PRA resembling analysis into new "project areas or programme areas". While this last concern is fully legitimate, it still leaves us with the challenge of finding analytical frames that are theoretically consistent and that can both be handled by competent but not necessarily fully educated researchers, and that are not expensive nor time-consuming to carry out in the field. "User-friendly" - but dubious?

The household economic models, the livelihood approaches, the environmental entitlement approaches all carry merits concerning the analysis of individuals and households but give less advice on how to approach systems of relationships between actors with different interests. Game theory has also been tried in this respect but may not capture the fuller perspectives of human agency as the neo-institutional stakeholder analysis would do.

Ostrom's analysis of long enduring common pool regimes have many of the same features as the stakeholder analysis but may, at least in its more simple versions, tend to lose some

of the broader and richer perspectives offered by the modified stakeholder analysis. In this respect, we think for example of the heterogeneity of local actors, their interests and relationships and the focus on resource properties as bearing on how actors formulate interests and interact.

It also seems particularly useful for systematic analysis of conflicts related to biodiversity and livelihood issues; and in capturing local, social, cultural, economic and ecological heterogeneity.

The neo-institutional stakeholder approach is promising but still in its inception as a more comprehensive social science research effort. The modifications in a more social constructivist direction are fertile but can at the same time threaten the simplicity and directness of the original stakeholder approach.

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