Fighting over forest: interactive governance of conflicts over forest and tree resources in Ghana’s high forest zone
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Theoretical outlook

Introduction

This chapter presents the theoretical debates in which this study is embedded. Taking political ecology as a starting point, it links up with three strands of literature: forest-based livelihoods, conflict and conflict management theories and interactive governance theory. The first section discusses political ecology. The next one looks at scholarly literature on forest-based livelihoods and how these are subject to conflicts. Then the chapter unearths scholarly literature on conflict theories and conflict management paradigms related to natural resource management, with a focus on forest resources. Subsequently, the chapter looks at interactive governance theory coined by Kooiman and colleagues and hitherto applied exclusively to fisheries. This theory focuses on interactions between the governing system and the system-to-be-governed, with the latter comprising both the natural and socioeconomic systems. The end of the chapter integrates the various theoretical strands and presents the conceptual framework that guides the analysis in this study. The overall objective of this theoretical framework aligns with how governance is understood in interactive governance theory, namely as ‘the whole of public, as well as private interactions taken to solve societal problems and create societal opportunities’ (Kooiman & Bavinck 2005: 17). In this case, the aim is to understand the societal problem relating to conflicts about forest and tree resources and the societal opportunities relating to the functioning of conflict management strategies.

A political ecology perspective

Political ecology is a discipline that emerged during the 1980s as a neo-Marxist-influenced analysis of resource use and environmental conservation (Ros-Tonen 2012). This discipline has been evolving dynamically, focusing on the politics and the complexity of human interaction with the environment (Blaikie & Brookfield 1987, Gezon 1997). The studies carried out in this field address cross-cutting issues from local to global concerns. Major themes in political ecology include power imbalances and social action (e.g. Peluso 1992, Escobar 1995, Bryant 1998), the role of politics of knowledge
and discourses in natural resource management (e.g. Byrant 1998, Fairhead & Leach 1996, 1998, 2003), conflicts in forest conservation and institutional politics (e.g. Gezon 1997, Dietz 1999) and gender and the environment (Rocheleau et al. 1990). As Ros-Tonen (2012) highlighted, themes that have become more prominent in political ecology since the turn of the century – in line with other literature on environmental change – include the dynamics of cross-scale interactions (e.g. Adger et al. 2006, Neumann 2009) and resilience and adaptation to global change (e.g. Adger 2000, 2009, Batterbury & Mortimore 2011).

This chapter links the political ecology approach with debates on forest-based livelihoods, conflicts and conflict management and interactive governance. There are several reasons for taking political ecology as a starting point for my theoretical framework. In the first place, political ecology (or political environmental geography as Dietz (1996, 1999) termed it), examines the dynamic interactions between people’s needs and nature as a resource and sinks, helping to access the power structures behind the causes of environmental problems and attempts to solve them (Dietz 1996: 33). This focus on dynamic interactions aligns well with Kooiman and Bavinck’s interactive governance concept quoted above, while it allows an unravelling of the power structures on which conflicts are based. Secondly, political ecology pays particular attention to the scalar dimensions of conflict situations, situating the actors involved within the broader environmental and socio-political contexts in which they are embedded (Bryant 1992, Dietz 1996, Gezon 1997). This allows us to understand the roots of conflicts that may be historical, or based on social, economic and power relations (Blaikie & Brookfield 1987, Peet & Watts 1996), while also providing an analytical perspective to unravel the multi-level character of conflicts, with interactions between actors operating at different levels of scale. Thirdly, political ecology pays particular attention to uneven access to resources, which allows us to analyse conflicts in terms of competing claims to forest resources.

Forest-based livelihoods

The World Bank (2004) estimates that 60 million indigenous people are almost wholly dependent on forests and 350 million people depend on forests for a high degree for subsistence and income. In addition, about 1.2 billion people rely on agroforestry farming systems. Hence, forest resources contribute immensely to the livelihoods of people, and particularly the world’s poor. Indeed, according to the World Bank (2004: 1), forest resources contribute to the livelihoods of 90% of the 1.2 billion people who live on less than one US$ a day. These people depend fully or partly on these resources to meet their daily subsistence and commercial needs.

Ellis (1998: 4) defines livelihood as ‘the process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living’. According to the DFID Sustainable Livelihood Guidance Sheets (1999: 1), it encompasses the assets (human, financial, physical, natural and social capital), the capabilities and the activities needed for a means of living. Attention to livelihoods from the perspectives of the poor received a boost with the Sustainable Livelihood Approach developed by authors like Chambers and Conway (1992), Carney (1998), Scoones (1998), Bebbington (1999) and Ellis (2000). Attention for the role that forests play in people’s livelihoods dates back to 1978 when the FAO held the VIII Forestry Congress under the title Forestry for People’ (Col-
chester et al. 2003, cited in Ros-Tonen et al. 2005), but has acquired a more prominent place on the agenda since the World Conference on Environment and Development (WCED) in Rio de Janeiro in 1992. Chapter 11 on combating deforestation in Agenda 21 (UNCED 1992), which was the outcome of the Rio conference, not only recognises the rights of forest dwellers to have an economic stake in the forest, but also highlights the cultural and spiritual value of forest and the need to protect indigenous rights.

Sunderlin et al. (2005) mention several ways in which forest resources play a role in people’s livelihoods. First, forests are an important source of maintaining agriculture, both directly as a source of farming land (i.e. shifting cultivation) and indirectly through soil formation and securing water supplies. Second, timber resources are a major source of revenue for those working in the timber industry and for the country as a whole. In Ghana, for example, the formal timber industry contributes about 6% to the Gross Domestic Product (GDP) and 11% to Ghana’s export earnings (Marfo 2010). It also creates about 100,000 jobs through direct employment in the legal timber industry and an estimated 130,000 jobs in chainsaw milling (Ibid.: xi & 2). Third, non-timber forest products (NTFPs), such as food items, medicinal plants, bushmeat, forage and fibre play an important socio-economic role in most local communities, not only for subsistence and commercial purposes, but also for their cultural and spiritual values (see Falconer 1992, Blay et al. 2008, Bell 2010, and Bokhorst 2011 for the role of NTFPs in Ghana). NTFPs can be an important source of cash and non-cash income for forest-dwelling people (Bell 2010), but overall they function mainly as a ‘safety net’ (in times of emergency) and ‘gap filler’ (in times of low agricultural income) (Sunderlin et al. 2005: 1386) rather than as a potential route out of poverty (Belcher et al. 2005, Kusters et al. 2006, Vedeld et al. 2007). The fourth way forest resources contribute to livelihoods is through environmental services which support farming and agroforestry systems (such as soil formation and securing water supplies as mentioned above). Environmental services may become more important as a source of cash income through carbon and other payments for environmental services (PES) within the framework of Reducing Emissions from Deforestation and Degradation (REDD+) schemes, as compensation for keeping the forest intact. Finally, Sunderlin et al. (2005) mention a number of indirect livelihood benefits, such as the boosting of local markets due to the presence of a logging workforce and the creation of a road network which facilitates access to markets, health services and education. In addition, people may receive logging compensation payments. In Ghana such compensation payments take the form of Social Responsibility Agreement (SRA) and crop damage compensation which are discussed in Chapters 9 and 10.

Despite their importance as sources of livelihood, the use of forest resources also creates challenges associated with illicit uses, restricted access, an unfavourable governing system and competing claims that undermine their importance to forest dwellers and the nation’s wellbeing. Such competing and conflicting interactions often result in conflicts. Tropenbos International Ghana (TBI 2005) identified challenges facing forest-based livelihoods in Ghana during focus group discussions held in 2005 on ‘Alternative livelihoods and sustainable forest management’. These are summarised as (i) inadequate incentives for local communities in forest resource management, (ii) inadequate exploration of the opportunities for improving forest employment, (iii) inefficient utilisation of NTFPs hindering their promotion as assets for livelihood improvement, (iv) a lack of proper analysis of forest-dependent livelihoods resulting in deficient decision making, and (v) conflicts inherent in livelihood activities relating to forest and tree resources (TBI 2005). Some of the problems and associated conflicts also result from the incom-
patibility in the statutory and customary tenure system inherited from the colonial and post-colonial era (Castro 2008). This issue is addressed in more detail in Chapter 5. First and foremost, I review the theories on conflict and conflict management.

Conflict theories and conflict management paradigms

The scholarly literature on conflict theories and conflict management have been evolving in scientific and policy debates for decades and interface with many disciplines (e.g. Pondy 1967, Fink 1968, FAO 1996, Glasl 1999, UNEP 2009). There seems to be a consensus that ‘conflict’ is generally ill-defined. The term ‘conflict’ is often used interchangeably with the term ‘dispute’. However, Burton (cited in Spangler & Burgess 2003) makes a clear distinction between the two concepts, based on different scopes (‘conflict is a larger umbrella under which smaller and short–term disputes occur’), time frames (‘disputes are short-term phenomena while conflicts are long-term problems’) and degrees of negotiability. With regard to the latter, ‘conflicts are different to disputes because they manifest themselves in issues that are seemingly non-negotiable’ (Ibid.: 2). Despite the variation in definitions and lack of consensus on a definition, most scholars agree that conflict is a ‘process’ (Pondy 1967, Fink 1968, Glasl 1999). According to Pondy (1967: 299):

‘Conflict can be more readily understood if it is considered to be a dynamic process. The reason being that conflict relationship between two or more individuals in an organization can be analyzed as a sequence of conflict episodes. Each conflict episode begins with conditions characterized by certain conflict potentials. The parties to the relationship may not become aware of any basis of conflict, and they may not develop hostile affections for one another. Depending on a number of factors, their behaviour may show a variety of conflict-prone traits. Each episode or encounter leaves an aftermath that affects the course of succeeding episodes’.

This section focuses on natural resource conflicts and first reviews literature on the causes of conflicts. After that it examines theories on conflict characteristics and dynamics, and then reviews various paradigms regarding conflict management.

Natural resource conflicts: causes

Conflicts differ according to context (Moore 2003, Wall & Callister 1995) and causes. In order to understand the latter, Tosi et al. (2000) developed a model that presents the dynamic conflict process (Figure 2.1) based on the ‘process school of thought’ (Pondy 1967, Hickson et al. 1971, Thomas 1976). Tosi et al. (2000: 277-278) explained the first three conflict stages as follows:

Antecedent conditions: ‘the conditions that cause or precede a conflict episode’.

Perceived conflict: ‘the requirement that, for conflict to exist, the conflict must be perceived by one or more parties involved’.

Manifest conflict or behaviour: ‘a stage of conflict that occurs when parties that have perceived a conflict behave in a way that makes the conflict observable.

The perceived conflict is what Schmidt & Kochan (1972: 362) identified as being two underlying causes of conflict, i.e. ‘perceived goal incompatibility’ with respect to the resources and activities that the conflicting parties share and the ‘perceived opportunity for interfering with the attainment of one another’s goals’. Glasl (1999) added to the intermediating variables that trigger conflicts the differences in perceptions, emo-
tions and interests, which he labelled ‘sources of impairment’. Glasl’s impairment model was adapted by Marfo (2006) and Yasmi & Schanz (2007) within the context of natural resource management. Marfo (2006) employed this model to understand the role of actor empowerment in the management of natural resource conflicts, whereas Yasmi & Schanz (Ibid.: 58) used the model to clarify conceptual confusion by recognising conflict as a two-actor constellation, with one actor behaviour experienced as an impediment by the other actor.

Figure 2.1 The conflict process (Adapted from Tosi et al. 2000: 277)

Several scholars (e.g. Homer-Dixon 1994, Buckles 1999, Le Billon 2001, Ohene-Gyan 2004, Yasmi & Schanz 2007, Schanz 2007) have theorised and analysed conflicts specifically related to natural resources. This body of literature revealed a great diversity of conflict occurrences. They can occur at household level, at local level within or between communities, at national level and at international level (FAO 1996, Fisher 2000). Due to the complexity of natural resource conflicts there are usually many causes and many interconnected issues, and that makes it difficult to pinpoint the key issues in the conflict scenarios. Different scholars have symbolised these conflicts in different ways. Among the main driving factors are power plays (LeBillon 2001, Marfo 2006), competing and diverging interests and the needs of stakeholders (Warner 2000), the scarcity of environmental resources (Homer-Dixon 1999, Theisen 2008), the resource curse (LeBillon 2001), inequity in benefit sharing and the absence or inadequate consideration of conflict management in national policies (Tyler 1999, Ohene-Gyan 2004). Given that it is a social process, the pivot of the conflicts is the human being – termed either as ‘stakeholders’ or ‘actors’ or ‘resource users’ (Grimble & Wellard 1996, Kotey et al. 1998, Marfo 2006).

Three conflict theories have been reported as being essential in natural resource conflicts. According to Yasmi & Schanz (2007) the scarcity theory, usually labelled as a
neo-Malthusian approach, sees conflicts as being inevitable due to the increased scarcity of natural resources – resulting either from increasing demand, decreasing supply or ‘structural scarcity’ caused by uneven distribution of resources – and emerging violent conflicts as a main threat for mankind (Kaplan 1994, Homer-Dixon 1994 & 1999). A contrasting view emanates from political ecology where the belief is that conflicts are largely determined by a set of broader processes of change within a specific historical context and embedded in the interplay of social, ecological and political processes (Peluso & Watts 2001, Turner 2004). An arena of contested entitlements therefore exists which comprise the right to own resources, the right to use resources, and the rights to intervene in resource situations (Dietz 1996, Neumann 1998). A third theory, related to political ecology, is the ‘environmental framing model’, which views conflict as perception driven (Lewicki et al. 2003, Adams et al. 2003). According to Gray (2003: 11), framing is the process of constructing and representing our interpretations of the world around us. Adams et al. (2003: 1915) argue that differences in knowledge, understanding, preconceptions and priorities among stakeholders provide a deeper meaning of why conflicts arise, but that they are often overlooked in conventional policy dialogue. Such knowledge allows stakeholders to define problems of resource use in three realms: (i) knowledge of the empirical context, (ii) knowledge of laws and institutions, and (iii) their beliefs, myths and ideas (Ibid.: 1915). A deeper understanding of these diverse frames creates opportunities for reaching consensus and/or compromise to facilitate conflict management.

A different perspective is taken by Buckles & Rusnak (1999) who relate conflict causes to four characteristics inherent in natural resources:
1. The interconnectedness of the space in which natural resources occur, as a result of which actions by one individual or group may generate effects for others, sometimes way beyond the actual site in which resources are used;
2. The shared social space in which natural resources are embedded, with complex and unequal relations among a wide range of actors with diverging interests in the same resource;
3. Their increasing scarcity due to factors identified by Homer-Dixon (1999), as cited above;
4. Their symbolic value related to a particular way of life, ethnic identity, gender or age roles.

Many of these characteristics are related to interdependency and interrelationships between resource systems, which often result in conflicts.

Other authors also view institutional failures, lapses in policy and legislation, and governance failures as causes of conflicts. Tyler (1999: 263) asserts that the level of attention paid in policy to conflict management has been relatively low, and that this has had a ripple effect on ‘long-term sustainability and short-term economic feasibility’. He clarifies several ways in which public policy may become a cause of natural resource conflicts, including (i) uncoordinated planning and investment in protected areas and other natural resource sectors, (ii) inadequate information and consultation on natural resource policies, (iii) government-supported migration and displacement, (iv) discriminatory or unclear tenure policies, (v) a piecemeal approach to tenure, decentralisation and natural resource management reforms, (vi) vague policy directions, and (vii) poor recognition of legitimacy of multiple stakeholders (see Tyler 1999 for further details). Furthermore, conflicts over natural resources arise because of the failure of mandated organisations to govern effectively (McKean & Ostrom 1995). The problem in conven-
tional hierarchical governance is the state’s over-emphasis on law enforcement and control, while overlooking the interactive component of the natural resource system and its inherent conflicts (Jentoft 2007). How stakeholders frame their perceptions of resource use problems and solutions may also generate policy conflicts because of differences in knowledge and understanding between policymakers and stakeholders (Adams et al. 2003). According to these authors, a failure to recognise such cognitive dimensions of conflicts results in shallow policy measures which fail to address the deeper underlying differences among the resource users (Ibid.: 1916).

Natural resource conflicts: dimensions

Other authors have examined natural resource conflicts in terms of analytical dimensions. For example, Anderson et al. (1996) distinguish between actors (e.g. stakeholders, government structures and private entities), resources (e.g. land, forest, ownership, access) and stakes (e.g. economic, political, socio-cultural). This categorisation enables conflicts to be analysed either through an actor-oriented approach, a resource-oriented approach, a stake-oriented approach or a combination of the three (Ibid.). Similarly, Engel & Korf (2005) propose unravelling natural resource conflicts by looking at three interrelated elements, namely people, process and problem. Key factors to be considered as far as people are concerned are their feelings, emotions and perceptions of the problems and how they relate to each other and the natural resources over which conflicts occur (Ibid.: 20). According to Engel & Korf (2005: 20), processes are ‘the way decisions are made, and how people feel about it’. The authors argue that it is important to consider these processes as feelings of resentment and as being treated unfairly or powerlessness as a frequent cause or trigger of conflict. Problems are the concrete issues (or ‘root causes’ in the terminology of Engel & Korf) around which conflicts evolve. They may include diverging values, interests, needs or shares in resource access or benefits. Adams et al. (2003) also argue that attention should be paid to the cognitive dimension of conflicts (i.e. knowledge and understanding) between and among stakeholders as an essential element in defining the root causes of the conflicts.

Conflict analysis or what other scholars term ‘conflict assessment’ is an initial stage of conflict resolution in which parties seek to gain a deeper understanding of the dynamics in their relationship. It could also be defined as the systematic study of the profile, causes, actors and dynamics of conflicts (Mason & Rychard 2005). Skutsch (1996) perceives conflict analysis as an analytical framework which views conflicts on a case-by-case basis. As an analytical approach which uses a number of different tools, conflict analysis is considered to be useful to the disputants, convener and assessor by (i) offering a reflective tool which clarifies their own interests, positions and issues with regard to the conflict, as well as revealing those of other stakeholders, (ii) building a shared body of information and knowledge, and (iii) reframing relationships and building trust and issue-based coalitions and providing insights into the type of intervention likely to succeed (Skutsch 1996, Shemueli 2003). There are several tools which can be used to conduct conflict analysis. These include strategic conflict assessment (SCA) (Oshita 2003), the conflict assessment framework (USAID 2004), and the conflict wheel (Mason & Rychard 2005) (Figure 2.2). In this thesis the conflict wheel is used. It is unique because it is a ‘meta’ conflict analysis tool that facilitates a multi-dimensional understanding of the causes and dynamics of conflicts, as well as the capacities for conflict management in Ghana’s high forest zone. The tool considers various conflict dimensions, including the actors involved in the conflict situation, the issues at hand, the con-
text in which the conflict is embedded, the causes and the options for conflict management. The wheel enables a first overview of a conflict to be obtained which the serves as a basis for analysing specific aspects in greater depth (Mason & Rychard 2005). Such in-depth analysis involved the use of the interactive governance approach outlined later in this chapter.

**Natural resource conflicts: characteristics**

As indicated above, most authors agree that conflict is a process (Fink 1968). This dynamic process involves a sequence of stages, which can be categorised into ‘violent’ and ‘non-violent’, with variations in the level of intensity (Axt et al. 2006, Warner 2000, Moore 2003, Buckles & Rusnak 1999). In between the violence and escape is what Noorduyn (2005) termed ‘cascade to violence or escape’ (Ibid.: 20). As cited above, Tosi et al. 2000 distinguished between antecedent conditions, perceived conflict, manifest conflict, conflict resolution or suppression, and aftermath. This corresponds to similar categorisations like the one by Pondy (1967) who distinguished between latent, perceived, felt, manifest and aftermath stages. Similarly, Brahm (2003) distinguishes between latent, emergent, escalation, stalemate, de-escalation, resolution and reconciliation. In practice it must be noted that not all conflicts complete the entire process or follow these stages in succession. Table 2.1 presents an overview of conflict categories adapted from HIIK (2005), which focuses on conflict intensity.

<table>
<thead>
<tr>
<th>Conflict category</th>
<th>Name of intensity</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-violent</td>
<td>Latent conflict</td>
<td>A positional difference on definable values of national meaning is considered to be latent conflict if respective demands are articulated by one of the parties and perceived by the other as such.</td>
</tr>
<tr>
<td></td>
<td>Manifest conflict</td>
<td>A manifest conflict includes the use of measures that are located in the preliminary stage to violent force. This includes, for example, verbal pressure, threatening violence explicitly, or the imposition of economic sanctions.</td>
</tr>
<tr>
<td>Violent</td>
<td>Crisis</td>
<td>A crisis is a tense situation in which at least one of the parties uses violent force in sporadic incidents.</td>
</tr>
<tr>
<td></td>
<td>Severe crisis</td>
<td>A conflict is considered to be a severe crisis if violent force is repeatedly used in an organised way.</td>
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<tr>
<td></td>
<td>War</td>
<td>A war is a type of violent conflict in which violent force is used with certain continuity in an organised and systematic way. The conflict parties exercise extensive measures, depending on the situation. The extent of destruction is massive and long-term.</td>
</tr>
</tbody>
</table>

Source: Adapted from HIIK (2005).
The key point that can be deduced from the work of scholars from the ‘process school of thought’ is that the process entails varying degrees of one party blocking or interfering with another party’s interests, goals, values, aspirations or needs (Pondy 1967, Schmidt & Kochan 1972, Fisher 1990). However as indicated by Axt et al. (2006: 5) one pitfall in conflict literature is that most studies are concentrated on violent conflicts (particularly wars) rather than on non-violent conflict.

**Conflict management paradigms and implications in natural resource conflicts**

There are various conflict management approaches that emanate from social sciences and natural resource management disciplines. These approaches not only differ according to their underlying objectives and assumptions (Yasmi & Schanz 2007: 35) but also with respect to their coping strategies. Ways to resolve or minimise conflicts have been identified by scholars using different conflict management terminologies. These include conflict resolution (Coser 1967, Zartman 1991, Mayer 2000), alternative dispute resolution (ADR) (FAO 2000), conflict management (Fisher & Ury 1981, Susskind et al. 2000, Marfo 2006), conflict capability (Glasl 1999, Zapf & Gross 2001), alternative conflict resolution (ACR) (Ury et al. 1988, Hoffmann & Wagner 1993), integrated conflict management system (ICMS) (SPIR 2001) and reframing (Spangler 2003, Lewicki et al. 2003). These terminologies are sometimes used interchangeably.

Conflict management approaches and coping strategies employed in natural resource management can be classified in three categories, i.e. avoidance, consensual approaches (negotiation, facilitation, moderation, consultation, conciliation and mediation) and non-consensual approaches (arbitration, adjudication and coercion) (Glasl 1999, Moore 2003, Engel & Korf 2005, Wehrmann 2008). A definition of the various conflict management strategies can be found in Table 2.2.

The underlying assumption of conflict management is that it is possible to promote a win-win solution, whereas strategies like avoidance, adjudication and violence in most cases lead to win-lose outcomes. These are often not considered desirable for conflict.
management (see Wall & Callister 1995, Engel & Korf 2005). From a conceptual perspective, conflict management is a systematic process geared towards finding mutually satisfying outcomes for two or more conflicted parties. It is therefore defined

**Table 2.2 Conflict management strategies**

<table>
<thead>
<tr>
<th>Approaches</th>
<th>Conflict management or coping strategy</th>
<th>Definition</th>
<th>Level of third party involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>No approach</td>
<td>Avoidance</td>
<td>Acting in ways that prevent conflicts being acknowledged publicly.</td>
<td>No meeting between conflict parties or third party.</td>
</tr>
<tr>
<td>Consensual approach</td>
<td>Negotiation</td>
<td>Parties reach agreement through consensus in a voluntary process. Consensus means a decision that all can support.</td>
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<td></td>
<td>Facilitation</td>
<td>The facilitator helps the parties come together, with the parties still being able to resolve the problem by themselves.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderation</td>
<td>The moderator helps the parties come together to clarify and settle minor differences, with the parties still being able to resolve the problem by themselves.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consultation</td>
<td>The ‘tutor’ accompanies the process, working on the deeply internalised perceptions, attitudes, intentions and behaviours of the parties in order to placate them.</td>
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<tr>
<td></td>
<td>Conciliation</td>
<td>This is a mixture of consultation and mediation. The conciliator helps the parties to negotiate while – whenever necessary – addressing internalised perceptions, attitudes, intentions and behaviours with the objective of reducing prejudices and hostility.</td>
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<tr>
<td></td>
<td>Mediation</td>
<td>Mediation, too, requires the parties to be willing to face each other and to find a compromise. The mediator follows a strict procedure, giving each party the opportunity to explain its perceptions and to express its feelings, forcing the other party to listen and finally moderating a discussion aimed at finding a solution with which both parties can live. The mediator does not have the authority to impose a solution.</td>
<td></td>
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<tr>
<td>Non-consensual approach</td>
<td>Arbitration</td>
<td>The parties submit the conflict to a mutually agreeable third party who issues a non-binding decision. Arbitration follows strict rules. Unlike the moderator, however, the arbitrator needs to make direct suggestions on how to settle the conflict. He is more influential and powerful than moderators, tutors or mediators and has decision-making authority.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjudication</td>
<td>The final decision is taken by a powerful authority (e.g. a judge).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coercion</td>
<td>Threatening or using force to impose a position.</td>
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</tr>
</tbody>
</table>

*Source: Adapted from Glasl (1999), Moore (2003), Engel & Korf (2005) and Wehrmann (2008).*
in this study as a ‘generic’ term that refers to all interventions in a conflict with the aim being to prevent and solve problems, transform relations, and change structures (adapted from Glasl 1999).

The kind of conflict outcome relates to the academic debate about whether natural resource conflicts should be considered as being destructive and damaging to the people and the resource base or whether they should be seen as a factor of positive social change. Adams et al. (2003) are of the opinion that conflicts result in socio-political, economic and infrastructure stability. Scholars from the ‘positive school’ believe that constructive or positive conflicts have the potential to facilitate learning and bring about positive social change and policy reform if they are properly handled. Conflicts over natural resources have the potential to contribute to equality and equity in resource distribution (Castro & Nielsen 2001, Hirschman 1994, Peets & Watt 1996). The positive impacts of conflict, like this one, are examined in Chapter 8 which explores strategies for dealing with conflict in the modified taungya system (MTS) – a co-management arrangement between the Forestry Commission and local communities for plantation development – which resulted in more equitable sharing of MTS benefits and strengthened the democracy in the MTS group in Chirayaso community. There is a third category of scholars who perceive conflict to have both negative and positive impacts. According to Deutsch & Coleman (2000) and Krisberg (1998) conflict is neither good nor bad. Rather it is the way in which they are handled which determines its constructive-ness or destructiveness. Yasmi (2007: 2) endorses this statement by asserting that ‘the biggest challenge is how constructive aspects of conflict are fostered and destructive ones are prevented or limited’.

Despite all the strategies and desire for win-win outcomes and positive social change, conflicts over forest resources are still widespread. There is therefore a need to search for alternative intervention strategies that fit rapidly into the changing governance processes. In exploring such an alternative strategy, this corresponds with Zartman’s (1997) notion that conflict management cannot be separated from governance, and that the right mechanisms should be put in place to deal with conflicts among groups before they escalate and block the governing process. However, in contrast to Zartman, who perceives the government as being the lead broker in terms of conflict management in the governance process, this chapter adopts the notion of ‘interactive governance theory’ developed by Kooiman et al. (2005) as a starting point to assess its potential for facilitating conflict management, especially in the domain of forest and tree resources.

Departing from this point, the conflict wheel is applied with a view to analysing conflicts over forest and tree resources from various forest actors’ perspectives (i.e. both state and non-state actors, local communities and timber operators). The analysis of the views of these respondents is blended with the analysis of the governing system. In Chapter 5 the historical perspective of forest and tree conflicts is analysed on the basis of documentary analysis. In Chapter 6 the conflict causes are categorised based on existing scholarly literature (notably Schmidt & Kochan 1972, Homer Dixon 1999, Tyler 1999), whereas the distinction between antecedent conditions and manifest behaviour is used in the analysis of conflict cases in Chapters 7-9. In terms of conflict dimensions, conflict intensity levels are categorised as being violent and non-violent. The categorisation of conflict management paradigms in Table 2.2 is used in subsequent chapters to interpret respondents’ answers regarding ways of dealing with conflicts.
The governance concept and interactive governance theory

This section begins with a brief description of the evolution of the governance concept from different disciplinary backgrounds and highlights the differences between governance and management. Next, it examines the notion of forest governance and the main challenges related to it. Finally, it presents interactive governance theory and how it can be applied to understand forest and tree resource conflicts and conflict management strategies that form the topic of this study.

The governance concept

Over the past three decades, governance as a concept has gained prominence in both academic and policy debates. At a global level, governance debates have been centred on three fields of studies, namely management, public administration and development studies. Within management studies, the governance discussion is linked to decentralisation and neo-liberal reforms with concepts like participation and mobilisation (World Bank 1997, Stoker 2000, Nuijten et al. 2004). Scholars in the field of public administration perceive governance as an interactive process of governing and steering processes of both state and non-state actors (Kooiman 1993, Jessop 2002). The third group of governance debates stems from development studies and has been prominent since the early 1990s (Nuijten et al. 2004). Governance is not merely something governors do, but comprises the totality of the interactions between the governing system and the system-to-be-governed (Kooiman & Bavinck 2005). Governance has different definitions according to its evolution into the different disciplines. However, three common features in these varied definitions include (i) governing as a matter of public as well as private actors, based on the premise that government alone cannot solve societal problems, (ii) a blurred dividing line between public and private sectors, as a result of which interests among these actors are often shared, and (iii) the recognition that governance has its roots in societal developments (Ibid.: 15-16). The central theme in most definitions is that the state cannot do things alone but needs non-state actors to assist in development.

Box 2.1 Distinction between governance and management

- Governance is the most inclusive term followed by public policy and then management.
- Governance goes beyond the problems at hand to consider longer-term societal trends and needs, while management is about implementation in a technocratic sense.
- Governance does not limit itself to one particular sector but looks at the relations between sectors.
- Governance is not the natural prerogative of government or of resource managers, but rather a widely practised activity and a broadly shared responsibility.
- Governance transcends a problem-and-solution focus and brings in an interest in the creation and exploitation of opportunities. It balances a concern for difficulties and issues with an eye for new and promising opportunities.
- Governance pays systematic attention to institutional arrangements for governing activities and to the normative principles that guide them.
- Governance is about politics while management is about action.

Adams (1996), who researched fisheries and aquaculture governance in the Pacific Islands region, questioned whether the terms management and governance could be used interchangeably. Although the two concepts are related, most scholars adhere to the view that a distinction must indeed be made (e.g. Béné & Neiland 2006, Kooiman & Bavinck 2005). Some key distinctions between the two concepts are outlined in Box 2.1. In forestry, Ros-Tonen et al. (2008: 1483) summarise the difference as ‘forest governance provides the political, legal and institutional framework in which (...) sustainable forest management can thrive’.

Forest governance

The concept of governance is a relevant discourse in the development of a global forest regime (Arts 2006). Applying this concept to the forest sector, Ros-Tonen & Kusters (2011) state that forest governance is about how and to what ends forests are managed. In their view, forest governance encompasses (i) the processes, mechanisms and formal and informal institutions in place to take decisions on forest use, (ii) the actors involved in these decisions and (iii) the way in which forest policies, laws and regulations are enforced on the ground (Ibid.: 189).

Governance or the lack of it, in forestry is a central issue that affects millions of people engaged in forest-related livelihood activities at all levels. For this reason, good forest governance is essential to protect people’s livelihoods and improve their well-being, and to protect them from the consequences of illegal logging and unauthorised removals of forest resources. At a global level, good and pro-poor forest governance faces several challenges. According to Brown et al. (2002), these include (i) the nature of the resource that offers multiple benefits to different people with diverse interests, (ii) the nature of property and access rights, and (iii) the value of forest resources (global vs. local values, marketed vs. un-marketed values, values of interest to actors operating at multiple levels of scales and with highly diverging powers, and values subject to illegal exploitation (Ibid.: 2). Mehta et al. (2001) add to these challenges the ecological, livelihood, knowledge and socio-political uncertainties that may affect people’s use of natural resources. According to Bavinck et al. (2005: 28) such uncertainties can make governance processes ‘very troublesome’.

Interactive governance theory

Focusing on ways to overcome some of the governance uncertainties, Kooiman & Bavinck (2005: 17) define governance as:

‘the whole of public as well as private interactions that are initiated to solve societal problems and create societal opportunities. It includes the formulation and application of principles guiding those interactions and care for institutions that enable them’.

According to Kooiman & Bavinck (Ibid.), the most important feature of their governance definition is interaction (see Box 2.2). For this reason, they label their approach to governance ‘the interactive governance approach.’ Three elements stand out in Kooiman and Bavinck’s views of governance as interactions: structure, actors and interaction:

- **Structures** are the frameworks within which actors operate, and which they take into account. They include culture, law, agreements, material and technical possibilities as well as inherited traits (Kooiman & Bavinck 2005: 17).
• **Actors** are social units that possess power of action, including individuals, households, associations, companies, institutions, NGOs, traditional authorities, local communities, leaders, political parties, militant groups, companies, NGOs, and government officials and all national, international and intergovernmental organisations (Ibid.: 17).

• **Interaction** is defined as ‘a specific form of action, undertaken by actors in order to remove obstacles and tread new pathways’ (Ibid.: 17). Kooiman & Bavinck (2005: 18) perceive interaction as ‘a mutually influencing relation...''

*Figure 2.3* Components of the interactive governance model and their linkages to governability (Source: Chuenpagdee et al. 2008: 3)
between two or more actors possessing an intentional and structural dimension’. From a societal perspective Kooiman (1999: 75) distinguishes three kinds of interactions, including (i) ‘interferences’ (regarded as uncoordinated, spontaneous interactions) (ii) ‘interplays’ (semi-formalised modes of interactions like networks, modes of cooperation, collaboration and group formation), and (iii) ‘interventions’ (interactions with a public or semi-public character which are often based on rules and regulations with some juridical imprints). As far as forest management in Ghana is concerned, a blend of these interactions occurs in the governing system, with interplays and interventions being the dominant interaction modes in the formal forest sector (see Chapter 5). As will be seen in Chapter 7, interventions can also occur under the traditional governing structure out of view of state actors when traditional authorities intervene in conflict management.

From the interactive governance perspective, three components of the societal system stand out: the governing system (GS), the system-to-be-governed (SG) and a mediating component, which govern interactions (GI). Together these ensure the so-called governability of the system (Figure 2.3).

According to this theory, the governing system and system-to-be-governed share similar structural attributes: they are diverse, complex, dynamic, and encompass multiple scales (Box 2.3). Using fisheries as an example, the four system characteristics defined by Kooiman & Bavinck (2005: 13-14) and Kooiman (2008: 76) are presented in Box 2.3. In addition to the structural attributes defined in Box 2.3, Jentoft (2007) adds ‘vulnerability’ to the list, which refers to the fact that the systems-to-be-governed are very vulnerable. He argues in favour of corresponding qualities (or ‘demands’) for the governing system to overcome these structural attributes while ensuring governability.

Diversity demands that the governing system is sensitive, complexity calls for inclusiveness, dynamics calls for flexibility and vulnerability means the precautionary principle has to be applied.

Box 2.3: System characteristics of interactive governance

Diversity: is a characteristic of the entities that form fisheries systems and points to the nature and degree in which they vary.

Complexity: is a function of the architecture of the relations among the parts of a system, and between a system and its environment. This depends on the interactions among the actors and their interdependency. Interactions become lengthening when more actors become involved in a system and/or when the geographical distance between them becomes larger.

Dynamics: apply to the tensions within a system and between systems. They create the potential for change, but can have disruptive consequences.

Scale: refers to time and space dimensions of systems-to-be-governed as well as to governing systems.

Sources: Kooiman & Bavinck (2005: 13-14) and Kooiman (2008: 176)
– The governing system (GS)
Jentoft (2007: 360) describes the governing system as a ‘social and therefore man-made system which is made up of institutions and steering instruments and mechanisms’. Interactive governance theory analyses the governing system in terms of orders, modes and elements of governance (Kooiman et al. 2008: 5).

Orders of governance are three interrelated levels of governance, with the first order encompassing interactions in day-to-day management ‘to solve societal problems and create societal opportunities’ while the second order refers to ‘the creation and care for institutions that enable the interactions’. The second order takes account of the maintenance and design of institutions (structures, human resources, etc.) necessary to solve problems and create opportunities (i.e. the first order process). The third order refers to the ‘principles guiding those interactions’. This is also known as ‘meta-governance’, which refers to the main normative principles and values that guide first and second orders processes.

The interactive governance framework presented in Figure 2.3 includes what Kooiman & Bavinck (2005) call ‘elements’, which consist of:

- **Images** – which constitute the ‘guiding lights’ as to the how and why of governance and can take many forms such as visions, knowledge and goals.
- **Instruments** – which link images to action and can be ‘soft’ in nature (e.g. information, bribe or peer pressure) or ‘hard’ (e.g. physical force).
- **Actions** – which put the instruments into effect.

According to the authors, all these components are closely connected and not easily distinguishable. Based on research on fisheries, Kooiman & Bavinck (Ibid.: 21-22) identify three styles or modes of governance with some styles of governance being more relevant to particular governing systems than others:

- **Self-governance** is a situation in which ‘actors take care of themselves’, largely outside the scope of government;
- **Hierarchical governance** is a style of governing in which the state intervenes and interacts with its citizens in a top-down style. Steering, planning and control are key concepts in this governance mode, which is embedded in instruments such as laws and policies;
- **Co-governance** is a collaborative way of governing in which responsibilities are shared between the State and societal parties with a common purpose in mind. This mode of governance is characterised by horizontal relationships, with no actor being solely in control.

According to Jentoft (2007), the characteristics of the system-to-be-governed determine which mode is most adequate. Some general principles include contextualisation (the more diverse the system-to-be-governed, the more appropriate self-governance), coordination (the more complex, the more appropriate the co-governing mode), learning (the more dynamic, the more effective the co-governing mode) and safeguarding (the more vulnerable, the more adequate the hierarchical mode). In practice, several modes of governance co-exist (Kooiman & Bavinck 2005: 22).

Despite being specific about properties, orders, elements and modes of governance, interactive governance theory is less specific about the actors in the governing system. This study regards the actors involved in forest governance as being all those that have roles, responsibilities and interests in forest resources. They include all individuals and organisations involved in (a) decision making regarding the allocation and regulation of forest and tree resources, (b) the implementation and enforcement of rules and regula-
tions regarding forest and tree resource use, (c) forest and tree resource use and/or management, (d) forest and tree resource conflicts and/or (e) forest and tree conflict management. To arrange actors and their interactions, a common distinction is made between the state, market and communities (Lemos & Agrawal 2006, Kooiman & Bavink 2005). Lemos & Agrawal (2006: 310) refer to these as social mechanisms or systems, and highlight the partnerships between them. Ros-Tonen et al. (2008) add civil society coalitions and NGO-community partnerships to the picture, taking account of civil society actors at levels of scale higher than the community level. Considering the transitional nature of the Ghanaian governance process, a number of actors do not fit neatly into one specific category. Most previous studies on actors in the Ghanaian forest sector have placed actors under either the state, civil society or the private sector or categorised them at different stakeholder levels such as primary, secondary and tertiary depending on their roles and dependency on the forest resources (Mayers & Kotey 1996, Kotey et al. 1998). This study proposes filling the gap in interactive governance theory by arranging actors in six main governing structures: (i) actors in the formal/statutory governing structure, (ii) actors in the traditional or customary governing structure, (iii) actors in the market governing structure, (iv) actors in the civil society governing structure, (v) actors in the hybrid governing structure, and (vi) actors in the transnational governing structure. This categorisation, presented in Figure 2.4, guides the actor analysis presented in the rest of the chapters. This is elaborated in more detail for Ghana as a whole in Chapter 5 and for the local level at which the four case studies are situated in Chapters 7-10.

- The system-to-be-governed (SG)

Chuenpagdee & Jentoft (2009) distinguish between two sub-systems within the SG, namely the natural and socioeconomic systems. The natural system refers to an ecosystem and the resources it contains, whereas the socioeconomic system encompasses resource users and stakeholders that form political alliances and institutions (Jentoft 2007). Like the governing system, the system-to-be-governed is characterised by diversity, complexity and dynamics because of the linkages and interdependencies among its components (Kooiman et al. 2008). These system characteristics can manifest themselves at different levels of geographical and temporal scale (Kooiman 2008). Chapter 4 of this thesis analyses Ghana’s high forest zone as the key natural system that is the subject of this study. As regards diversity it examines different ecological zones and biological diversity, while complexity is assessed in terms of different management regimes. As far as scale is concerned, Chapter 4 considers the different ecological subsystems. Dynamics are analysed in terms of deforestation and reforestation. Similarly, the socioeconomic system, which is made up of resource users and stakeholders, is analysed in terms of diversity (in terms of actor composition, diverging interests and different roles in the forest governance system), complexity (in terms of resource rights, use and power constellations), dynamics (in terms of interactions) and scale (in terms of the geographical scales at which actors are operating). Actors in the various governing structures (Figure 2.4) are discussed in Chapter 5 under the governing system.

- Governance interactions (GI)

In interactive governance theory, the governance interactions encompass the relationships between the governing system and the system-to-be-governed. They constitute the
basic element of governance. The outcomes of these interactions determine the degree of governability of the system. Kooiman (2008: 173) argues that the governors, the governed and the interactions between them all contribute to the governability of the system, as do all kinds of external influences. Kooiman et al. (2008) perceive governance interactions from the actor perspective and examine concepts like participatory, collaborative and policy or management interactions. The authors also observe governance interactions from a structural perspective as self-governance, co-governance and hierarchical governance. The governance interactions take place in two directions: actors in the system-to-be-governed try to influence the governing system, whereas actors in the governing system impact on the system-to-be-governed. Considering the properties of the system-to-be-governed and the governing system, the governance interactions need to address diversity, complexity and dynamics.

– Governability and the system components
The core of the interactive governance approach is an understanding of governability. Kooiman (2008: 173) defines the concept of governability as ‘the overall capacity for governance of any societal entity or system’. The inherent characteristics of the system-to-be-governed and the governing system as well as the governance interactions challenge their governability. Chuenpagdee & Jentoft (2009) explain that systems which are more diverse, dynamic and complex and which involve multiple spatial and temporal scales are more difficult to govern. This gives a clear indication of the limitations of governance, which can be overcome by paying specific attention to each of the three components of governance, namely the system-to-be-governed, the governing system
and the governance interaction. Jentoft (2007: 367) asserts that ‘interactive governance theory provides three opportunities to make a system more governable or increase its governability’. First, the governing system can be empowered if governors are given additional mandates accompanied by legal instruments, financial and intellectual resources (Ibid.). Second, within the system-to-be-governed the governability could be enhanced if efforts are made to make them less diverse, complex, dynamic and vulnerable for easy management and control (Ibid.). Third, the interaction between the two systems must become more interactive, more constructive and cost-effective (Ibid.). Furthermore, Bavinck et al. (2005: 49) also propose three ‘ways forward’ to enhance governability in fisheries. These include (i) widely understood values and principles, formulated in a vision, (ii) inclusion of all actor groups and shared responsibilities to enhance governance legitimacy and effectiveness, and (iii) a learning and adaptive approach to cope with uncertainty and change.

Analytically, a governability assessment framework or matrix provides a tool to evaluate governance ‘by posing questions dissecting the key variables that help understand how and why governance implementation falls short of achieving desirable outcomes’ (Chuenpagdee & Jentoft 2009: 113). Governance interactions are analysed with a view to assessing governability, which is understood as being ‘the overall capacity for governance’ (Kooiman 2003 cited in Chuenpagdee & Jentoft 2009: 112). Chuenpagdee & Jentoft (2009: 114) and Chuenpagdee et al. (2008: 4) present a governability assessment framework that considers the three governance components and their governability criteria. It is replicated in an adapted form in Table 2.3.

Table 2.3 A governability assessment framework

<table>
<thead>
<tr>
<th>Governance component</th>
<th>Governability criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-to-be-governed (SG)</td>
<td>- Prevalence of properties (i.e. diversity, complexity, dynamics and scale)</td>
</tr>
<tr>
<td>Governing system (GS)</td>
<td>- Goodness of fit of elements (i.e. images, instruments and actions</td>
</tr>
<tr>
<td></td>
<td>- Responsiveness of modes (i.e. self, co- and hierarchical)</td>
</tr>
<tr>
<td></td>
<td>- Performance of orders (i.e. first, second and meta)</td>
</tr>
<tr>
<td>Governance interactions (GI)</td>
<td>- Presence of interactions</td>
</tr>
</tbody>
</table>

Source: Chuenpagdee et al. (2008: 4).

The next section shows how this approach has been integrated in the conceptual framework of this study.

Linkages of governance with other collaborative concepts

Several concepts considered in this thesis are linked and relevant to (interactive) governance. These are co-management, adaptive management and social capital (see Chapter 8). Borrini-Feyerabend et al. (2000: 7) describes co-management as ‘a situation in which two or more social actors negotiate, define, and guarantee amongst themselves an equitable sharing of the management functions, entitlements and responsibilities for a given territory or set of natural resources but does not only depend on power sharing’. This definition has similarities with co-governance as defined by Kooiman & Bavinck (2005: 22) who perceive co-management as one of the manifestations of co-governance. This is one of many other definitions, which have in common that they consider co-management as (i) natural resource management (ii) a partnership between public and private actors, and (iii) a continuous problem-solving process rather than a fixed state (Carlsson & Berkes 2005: 67). These authors (Ibid.: 68) distinguish five images of co-management, including co-management as an exchange system of goods, services and
information, as a joint organisation or formalised arena for cooperation, as a state-nested system in which resource users manage natural resources on state-owned land, as a community-nested system in which the State operates in a non-public sphere (e.g. monitoring the operations of private logging companies), and as a network. The latter image recognises that both resource users and the state are fragmented and have many faces and that it is the total of the relationships that make up the co-management system (Carlsson 2000, Carlsson & Berkes 2005). In later work (Berkes 2009), these multiple faces of co-management are described as (i) power sharing, (ii) institution building, (iii) trust and social capital, (iv) process, (v) problem solving, and (vi) governance. This brings the co-management concept close to the governance concept, as in Singleton’s (1998: 7) definition of co-management as ‘the term given to governance systems that combine state control with local, decentralized decision making and accountability and which, ideally, combine the strengths and mitigate the weaknesses of each’. Like governance, co-management looks beyond government, towards public-private-civil society partnerships, and as a way of dealing with the shortcomings of single agency and top-down management (Kooiman 2003, Borrini-Feyerabend et al. 2000).

Adaptive management or ‘learning-by-doing’ is a management approach that acknowledges the lack of unequivocal and definitive knowledge of the ways in which ecosystems work, and the uncertainty that dominates our interaction with them (Borrini-Feyerabend et al. 2000: 11). It fits in with current resilience thinking about the co-evolution of humans and ecosystems in social-ecological systems that unpredictably oscillate between multiple ‘stability domains’ (Holling 1973, Gunderson 1999). Adaptive management and co-management have been evolving towards a common ground because ‘maturing co-management arrangements become adaptive co-management in time, through successive rounds of learning-by-doing’ (Berkes 2009: 1699).

The concept of social capital has also been used in literature on natural resource and environmental governance (see Pretty & Ward 2001, Trimble & Berkes, 2010). Various definitions exist for social capital. However, the central tenet of the concept is that ‘interaction’ between or among individuals or institutions is bonded by trust, reciprocity, common rules, norms and networks among other features developed in an iterative process (Woolcock & Narayan 2002, Pretty & Ward 2001). This general principle of social capital aligns with interactive governance theory through the concept of ‘interaction’ (between stakeholders in the system-to-be-governed, between governing actors and between the governing system and the system-to-be-governed (Kooiman et al. 2005). In interactive governance theory, these interactions are analysed with a view to assessing governability, which is the overall capacity for governance aimed at finding solutions for societal problems and creating opportunities. If the ‘societal goal’ is the sustainable management of natural resources, this comes close to the focus in studies that relate social capital to environmental governance. Analysing the interactions between stakeholders in the system-to-be-governed in terms of social capital reveals a synergy between interactive governance theory and the social capital framework (Trimble & Berkes 2010). The details can be found in Chapter 10 which examines a case of social capital construction between a timber operator and local community in the
Figure 2.5 Conceptual framework to understand forest and tree resource conflicts and conflict management strategies from an interactive governance perspective

**Governability outcomes**

- **S 1 (+)**
- **S 2 (-)**
- **S 3 (+ -)**

**Nature of conflict and cooperation**

**Governability assessment, conflict analysis and social capital applications**

**Point of interventions**

Conflict management strategies from an interactive governance perspective

**Keys:** GI = Governance interactions; S1 (+) = Scenario 1 where the system is governable; S2 (-) = Scenario 2 where the system is not governable, and S3 (+ -) = where the system is governable but with limitations.

**Governability**

- Access (Formal and informal)
  - To resources
  - To land
  - To use rights
  - To benefits

**Governability components**

- **System-to-be-governed**
  - **Natural sub-system:** Ghana’s high forest zone (Case: Tano-Offin)
  - **Socioeconomic sub-system:** Forest users (i.e., local communities and timber operators) who use forest and tree resources for their livelihoods

- **Governance structure** (Actors)
  - **Governing system**
    - **Modes (self-governance, hierarchical and co-governance)**
    - **Elements (images, instruments and actions)**
    - **Orders (1st, 2nd and 3rd)**

**Systems features/properties**

- Diversity
- Complexity
- Dynamics
- Scale

**Governability assessment, conflict analysis and social capital applications**

**Nature of conflict and cooperation**

**Point of interventions**

Conflict management strategies from an interactive governance perspective

**Governability outcomes**

- **S 1 (+)**
- **S 2 (-)**
- **S 3 (+ -)**

**Keys:** GI = Governance interactions; S1 (+) = Scenario 1 where the system is governable; S2 (-) = Scenario 2 where the system is not governable, and S3 (+ -) = where the system is governable but with limitations.
Tano-Offin off-reserve forest. The indication is that conflicts can be minimised by cooperation based on the construction of social capital, such as networking, shared responsibility, and provision of incentives, social ties and trust by the timber contractor reciprocated by local people.

**Conceptual framework: Linking forest-based livelihoods, conflicts and interactive governance**

The above review of literature made it clear that, first and foremost, forest and tree resources play an essential role in people’s livelihoods. However, forest resources are subject to excessive exploitation, resulting from a combination of increasing population pressure and competing claims from stakeholders with different interests, needs, goals and power. Such competing and conflicting interactions often result in conflicts. Conflicts have been shown to have two sides. On the one hand they can be destructive, and have disrupting effects on people’s livelihoods and the resource base. On the other hand they can be constructive, in which case a conflict brings a solution to injustices or inequities in the distribution of resource access and benefits. The challenge to resource users is how to balance these two facets.

Secondly, as conflicts are inherent in interactions related to natural resources, and hence natural resource governance, different conflict analysis tools have been designed to help minimise these conflicts. Several conflict analysis tools, such as the conflict wheel, have been developed to analyse conflict as a first step towards their solution. However, considering the multifarious driving factors underlying natural resource conflicts, a tool like this alone will not be effective when it comes to managing conflicts. A conceptual scheme is therefore presented (Figure 2.5) that integrates interactive governance theory and conflict analysis as a basis for understanding forest conflicts and conflict management strategies, for assessing the governability of these systems, and for formulating possible interventions. In a case study in which cooperation rather than conflicts occurred, interactive governance theory is blended with aspects of theories on social capital to understand the factors that facilitated the cooperation. Interactive governance theory was selected for three reasons which are (i) its wide analytical application in fisheries, (ii) its compatibility with political ecology that focuses on the politics of the interaction between humans and nature, and (iii) because it enables one to analyse problems and opportunities from a system perspective, in which each part of the system and the interactions between the parts are thoroughly explored before prescribing interventions.

Figure 2.5 shows the interactive governance framework and its three components (the system-to-be-governed, the governing system and the governance interactions) and their inherent system features. In this figure, the system-to-be-governed is Ghana’s high forest zone, encompassing the natural sub-system and the socio-economic sub-system. The latter represents local communities and timber operators as the main resource users of interest. The other actors are analysed as part of the governing system and are those who have policy, management and law enforcement roles. The governing system in the conceptual scheme is characterised by system properties (diversity, complexity, dynamics, scale), elements, orders and modes of governance) that influence actor’s access (formal and informal) to forest resources, land, benefits and use and entry rights. The outcomes of interactions between the system-to-be-governed and the governing system, as well as among resource users, can result in cooperation/collaboration, con-
flict/competition or a mixture of these depending on the prevailing governing system, the state of the natural system and the interactions within the socioeconomic sub-system. For an in-depth understanding of the nature of conflicts and conflict management strategies under various governance arrangements, conflict analysis is mixed with the governability framework and elements of social capital theories to explore cooperation and its implications on the governance system as a whole.

Based on this conceptual framework, it is hypothesised that there are three possible governability outcomes as shown in Figure 2.5. Scenario 1 gives a positive outcome, which implies that the system is governable and that one can sense an atmosphere of cooperation or collaboration or even competition, but without conflicts. This also implies that the interaction between the system-to-be-governed and the governing system is mutually responsive. Such a scenario does not often occur in reality, especially in the natural resource arena where different kinds of actors operating at different spatial scales compete for limited resources and where policies restrict access rights for some actors and other limitations occur, as will be shown in the empirical chapters.

However, it is regarded as the ideal situation that interactive governance theory is looking for and one in which mechanisms and instruments are well formulated, policy becomes a learning process and actors are actively involved in the governance process.

Under Scenario 2 the system is not governable, as might be indicated by social unrest or complete resource degradation and lawlessness. Such a scenario could happen in practice and may call for a complete reform or a new innovation, but did not apply to any of the cases analysed in this study. The last scenario occurs where the system is governable, but with limitations. Governability is challenged in that the interactions between components of these systems may not be mutually responsive. This confirms the statement by Jentoft (2007: 362) that ‘conflict is a permanent feature of the governing system which makes it inherently instable and dynamic and thus a challenge to handle from a governability perspective’. Nonetheless, conflict theorists who see conflict as a tool for positive social change believe that such a limitation can be overcome. The components of the systems (either the system-to-be-governed, governing system or governance interactions) may face limitations, in which case improving the system by the amendment of legislations or by improving actor participation or the natural system to meet the demands of users may improve the system. This is indicated by positive and negative signs.

This conceptual scheme provided a basis for data collection and analysis of the governing system, the system-to-be-governed, as well as the governing interactions in the subsequent chapters. In addition, the elements – images, instruments and actions (Kooiman et al. 2005) – are blended with the conflict wheel developed by Mason & Rychard (2005) for a more in-depth understanding of the nature of prevailing conflicts and conflict management strategies (see Chapters 6-9 and 11) and the case of cooperation analysed in Chapter 10. The natural sub-system, the socio-economic sub-system and the governing system of Ghana’s high forest zone and their inherent characteristics are analysed in Chapters 4 and 5 of this thesis. This forms the context for the analysis of the cases in subsequent chapters. In Chapter 6, interactive governance theory is combined with the conflict wheel to understand conflict issues, actors, causes, dynamics and prevailing conflict management strategies in Ghana’s high forest zone from the perspectives of forest governors and experts.

For the three case studies in the Tano-Offin forest reserve (Chapters 7-9) the governability framework is combined with the conflict wheel to understand (i) the governance
arrangements and their challenges and opportunities in each of the forest management regimes (i.e. protection, plantation and production) and (ii) the nature of conflicts and conflict management from the perspective of the local people. The latter is analysed in terms of images, instruments and actions. Chapter 10 presents a case of cooperation in the off-reserve area, in which the governability framework is integrated with elements of theories on social capital to understand factors that promoted such cooperation. The last case in Chapter 11 employs only the governability framework to analyse documented forest offences, judiciary judgements on forest offences and the perceptions of staff of forest law enforcement agencies (i.e. the FC, Police and Judiciary) on law enforcement based on images, instruments and actions.

Conclusion

This chapter presented the theoretical and conceptual framework that guides the analysis in this study. From an overall political ecology and forest-based livelihoods perspective, a combination of interactive governance theory and conflict analysis tools is used, in particular, to unearth forest conflict and conflict management in order to identify gaps for interventions. Conflicts are ubiquitous in natural resource management and the absence of adequate mechanisms to minimise them poses many challenges to the ongoing forest governance process as well as to sustainable livelihoods. This can be explained by the fact that the system-to-be-governed is generally characterised by diversity, complexity and dynamics and that multiple actors are operating at different levels of scale. An effective governance system would therefore mean that all key actors (those pertaining to the statutory, customary, market, civil society and hybrid governing structures) must be able to cooperate through consensus or compromise in a way that common needs and conflicting issues can be effectively addressed. The proposed combination of conflict analysis and interactive governance approaches is a first step in identifying the problems that hinder collective action and sustainable forest management.