Cultivating *peace*

Conflict and Collaboration in Natural Resource Management

edited by Daniel Buckles

CULTIVATING PEACE

This page intentionally left blank

CULTIVATING PEACE

Conflict and Collaboration in Natural Resource Management

Edited by Daniel Buckles

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE
Ottawa • Cairo • Dakar • Johannesburg • Montevideo • Nairobi • New Delhi • Singapore

WORLD BANK INSTITUTE
Washington, DC, USA

Published by the International Development Research Centre
PO Box 8500, Ottawa, ON, Canada K1G 3H9

In collaboration with the World Bank Institute of the International Bank for Reconstruction and Development/The World Bank.

The World Bank
1818 H Street, N.W.
Washington, D.C. 20433, USA

© International Development Research Centre 1999

Canadian Cataloguing in Publication Data

Canadian Cataloging in Publication Data

Main entry under title :
Cultivating peace : conflict and collaboration in natural resource management

Co-published by the World Bank.
Includes bibliographical references.
ISBN 0-88936-899-6

1. Natural resources — Management — Developing countries — Congresses.
2. Conservation of natural resources — Developing countries — Congresses.
3. Conflict management — Developing countries — Congresses.
4. Sustainable development — Developing countries — Congresses.
I. Buckles, Daniel.
II. World Bank.
III. International Development Research Centre (Canada)

HC59.7C84 1999 333.7'09'12'4 C99-980392-1

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior permission of the International Development Research Centre. The findings, interpretations, and conclusions expressed in this publication are entirely those of the authors and should not be attributed in any manner to the International Development Research Centre or to The World Bank, to its affiliated organization, or to members of its Board of Executive Directors or the countries they represent. The publishers do not guarantee the accuracy of the data included in this publication and accept no responsibility for any consequence of their use. The boundaries and names shown on the maps in this publication do not imply official endorsement or acceptance by the International Development Research Centre or The World Bank. Mention of a proprietary name does not constitute endorsement of the product and is given only for information. A microfiche edition is available.

IDRC Books endeavours to produce environmentally friendly publications. All paper used is recycled as well as recyclable. All inks and coatings are vegetable-based products.

Contents

Foreword — *Maureen O'Neil and Vinod Thomas* vii

Acknowledgments xi

Introduction. Conflict and collaboration in natural resource management
— *Daniel Buckles and Gerett Rusnak* 1

CONCEPT: CULTURE

Chapter 1.
Conflict management: A heterocultural perspective
— *Jacques M. Chevalier and Daniel Buckles* 13

Part 1. Forestry

Chapter 2.
Nam Ngum, Lao PDR: Community-based natural resource management and conflicts over watershed resources — *Philip Hirsch, Khamla Phanvilay, and Kaneungnit Tubtim*. 45

Chapter 3.
The Nusa Tenggara uplands, Indonesia: Multiple-site lessons in conflict management — *Larry Fisher, Ilya Moeliono, and Stefan Wodicka* 61

Chapter 4.
Jabalpur District, Madhya Pradesh, India: Minimizing conflict in joint forest management — *Shashi Kant and Roshan Cooke*. 81

CONCEPT: SOCIETY

Chapter 5.
Stakeholder analysis and conflict management — *Ricardo Ramírez* 101

Part 2. Coastal Areas

Chapter 6.
Cahuita, Limón, Costa Rica: From conflict to collaboration
— *Viviane Weitzner and Marvin Fonseca Borrás* 129

Chapter 7.
Bolinao, northern Philippines: Participatory planning for coastal development
— *Liana Talaue-McManus, Alexis C. Yambao, Severino G. Salmo III, and Porfirio M. Aliño* . . . 151

Chapter 8.
The Galapagos Islands: Conflict management in conservation and
sustainable resource management — *Paola Oviedo* 163

CONCEPT: PEACE

Chapter 9.
Peace and conflict impact assessment
— *Kenneth D. Bush and Robert J. Opp* 185

Part 3. Land Use

Chapter 10.
The Nuba Mountains of Sudan: Resource access, violent conflict,
and identity — *Mohamed Suliman* 205

Chapter 11.
Copán, Honduras: Collaboration for identity, equity, and sustainability
— *Jacqueline Chenier, Stephen Sherwood, and Tahnee Robertson* 221

Chapter 12.
The Laguna Merin Basin of Uruguay: From protecting the natural heritage to
managing sustainable development — *Carlos Pérez Arrarte and Guillermo Scarlato* 237

Chapter 13.
Matagalpa, Nicaragua: New paths for participatory management in
the Calico River watershed — *Ronnie Vernooy and Jacqueline A. Ashby* 251

CONCEPT: POLICY

Chapter 14.
Policy implications of natural resource conflict management
— *Stephen R. Tyler* 263

Appendix 1.
Contributing authors 281

Appendix 2.
Acronyms and abbreviations 283

Chapter 5

Stakeholder analysis and conflict management

Ricardo Ramírez

This chapter seeks to support community-based natural resource management by providing a framework for analysis and understanding of two closely interrelated themes: stakeholder analysis and conflict management. The origin and meaning of stakeholders and of stakeholder analysis are sketched. A conceptual framework is proposed as a template to relate two common situations: those in which stakeholders share enough consensus around an issue to collaborate and those stressful situations in which conflict is a given reality and stakeholders may not be certain about the value of joint decision-making or negotiation. Further, this chapter mentions some general principles fundamental in stakeholder negotiations, namely, voice (participation) and procedural justice (agreement on the fairness of rules for collaboration).

Stakeholders and stakeholder analysis

Origins and definitions

The word "stakeholder" was first recorded in 1708 as "a person who holds the stake or stakes in a bet"; the current definition is "a person with an interest or concern in something" (Bisset, personal communication, 1998[1]). Freeman (1984, p. vi) defines a stakeholder as "any group or individual who can affect, or is affected by, the achievement of a corporation's purpose." In the context of natural resource management, however, Röling

[1] A. Bisset, personal communication, 1998.

and Wagemakers (1998, p. 7) offer a more appropriate definition: "Stakeholders are ... natural resource users and managers."

Other terms are used interchangeably with stakeholder in colloquial language, but with slightly different connotations. For example, systems analysts refer to an "actor" as "a person who carries out one or more of the activities in the system" (Checkland 1981, p. 312); sociologists talk about "social actors" as individuals or social entities who are knowledgeable and capable (Long 1992) and can thus formulate and defend decisions (Hindess 1986). One recent article (Mitchell et al. 1997) lists 27 definitions of "stakeholder" in the business literature, and many more are proposed in natural resource management fields. What is relevant here is that modern uses of the term are not synonymous with persons or individuals only but also refer to groups and organizations that have an interest or are active players in a system.

Stakeholder analysis refers to a range of tools for the identification and description of stakeholders on the basis of their attributes, interrelationships, and interests related to a given issue or resource. The term transcends several fields of study, including business management, international relations, policy development, participatory research, ecology, and natural resource management. It is rather vague as it is often mentioned loosely without specific indication of the context.

To clarify the meaning of the term, it is useful to ask why stakeholder analysis is used. There are several reasons for carrying out stakeholder analysis (Grimble and Wellard 1996; Engel 1997; Röling and Wagemakers 1998):

- Empirically to discover existing patterns of interaction;
- Analytically to improve interventions;
- As a management tool in policy-making; and
- As a tool to predict conflict.

"Stakeholder analysis can be defined as an approach for understanding a system by identifying the key actors or stakeholders in the system, and assessing their respective interest in that system" (Grimble et al. 1995, pp. 3–4). This definition is useful in that it defines stakeholder analysis as a natural resource management approach and acknowledges its limits — it cannot be expected to solve all problems or guarantee representation (Grimble and Wellard 1996).

Grimble and Wellard (1996) underline the usefulness of stakeholder analysis in understanding complexity and compatibility problems between objectives and stakeholders. Likewise, Freeman and Gilbert (1987) propose the concept of "stakeholder management" as a framework to help managers understand the turbulent and complex business environment. Hence the term "stakeholder" is often associated with corporate management. A central assumption in Freeman's writing is the manager's ability to manage stakeholder relationships. This is difficult to transport to other fields, such as natural resource management, where the power to control the system is at the heart of many debates.

A thorough description of stakeholder analysis as a qualitative method in organizational research is provided by Burgoyne (1994). Grimble and Wellard (1996) trace several other origins of stakeholder analysis, including political economy, namely through the notion of how to combine numerous individual preferences by applying cost–benefit analyses. Stakeholder analysis is also derived from participatory methods of project design, such as rapid and participatory rural appraisal (PRA), that seek to integrate the interests and perspectives of disadvantaged and less powerful groups (Pretty et al. 1995; Chambers 1997).

The questions of who is a stakeholder and under what circumstances the opinions or knowledge of stakeholders count are common to both participatory research and business literature; in both instances, power is described as a central attribute of knowledge (Chambers 1997; Mitchell et al. 1997). Furthermore, stakeholder analysis is also a central theme in conflict management and dispute resolution and has important roots in the social actor perspective in the sociology of development (Long 1992).

Stakeholder analysis: steps and tools

Stakeholder analysis seeks to differentiate and study stakeholders on the basis of their attributes and the criteria of the analyst or convenor appropriate to the specific situation. These may include

- The relative power and interest of each stakeholder (Freeman 1984);
- The importance and influence they have (Grimble and Wellard 1996);
- The multiple "hats" they wear; and
- The networks and coalitions to which they belong (Freeman and Gilbert 1987).

For example, in conflict assessment, four types of stakeholders are expected: those with claims to legal protection, those with political clout, those with power to block negotiated agreements, and those with moral claims to public sympathy (Susskind and Cruikshank 1987).

It follows then, that in the natural resource management literature we find a range of terms such as

- Primary, secondary, and key stakeholders (ODA 1995);
- Internal or external to the organization (Gass et al. 1997);
- Stakeholders, clients, beneficiaries (ASIP 1998); and
- Stakeholder typologies on a macro- to microcontinuum and on the basis of their relative importance and influence (Grimble et al. 1995).

Although differentiation among stakeholders is a necessary step in stakeholder analysis, the distinction is often based on qualitative criteria that are difficult to generalize. The use of matrices is a common tool in stakeholder analysis, in which stakeholder groups appear on one axis and a list of criteria or attributes appears on the other. For each overlapping area, a qualitative description or quantitative rating is given (see Annex 1).

Grimble et al. (1995, p. 7) list a flexible set of steps for conducting stakeholder analysis:

- Identify the main purpose of the analysis;
- Develop an understanding of the system and decision-makers in the system;
- Identify principal stakeholders;
- Investigate stakeholder interests, characteristics, and circumstances;
- Identify patterns and contexts of interaction between stakeholders; and
- Define options for management.

Three major phases are involved: defining the problem, analyzing constraints and opportunities, and agreeing on an action plan. These phases are common to several methods that seek to engage multiple stakeholders in joint analysis and action in natural resource management:

- Rapid appraisal of agricultural knowledge systems (Engel and Salomon 1997) (see Annex 2);
- Collaborative management (Borrini-Feyerabend 1996); and
- Collaborative learning (Daniels and Walker 1996).

A logical question arises: Who decides on the purpose of the analysis and who counts most? In other words, who is a stakeholder? The question refers ultimately to the relationship both between the stakeholder and the problem and between the stakeholder and the analyst or convener. For the convener, it has to do with having the power, legitimacy or resources to convene others, the power to choose the criteria for inclusion or exclusion of stakeholders, and the authority to define the reason or theme around which stakeholder analysis takes place (Grimble and Wellard 1996). On the side of the stakeholder, it has to do with "being noticed" or having a "voice," which in turn is the result of having attributes such as power, legitimacy, and urgency in relation to an issue (Mitchell et al. 1997).

For corporate managers the question of power is often taken for granted: the corporation decides what the problem situation is and who the stakeholders are. In natural resource management, however, the use of power to convene and select stakeholders may not be agreeable to all. Moreover, unless there is agreement on the boundaries around a resource problem, there may not be enough parameters around which to decide who the stakeholders are in a system. In fact, the stakeholders in all likelihood do not form a system unless they expressly agree to see themselves as belonging to one (Röling and Jiggins 1998). For this to happen, stakeholders must agree on a problem domain, that is, a problem conceptualized by the stakeholders (Trist 1983).

Stakeholders are part of a management strategy, an arbitrary concept that exists only to the extent that people can agree on its goals, boundaries, membership, and usefulness (Röling and Wagemakers 1998). Stakeholder analysis tools tend to be straightforward: matrices or lists of criteria or attributes. Complex and ever changing, however, are the challenges of establishing commonly agreeable definitions of issues or problem situations, defining the boundaries, and identifying the relevant stakeholders.

Conceptual framework

The conceptual framework as a guide to inquiry

The conceptual framework presented below (Figure 1) is based on a number of propositions and is accompanied by examples. It is intended as a map to guide inquiry; its aim is to help readers situate their experience and compare it with other situations where multiple stakeholders interact. The framework is made up of propositions derived from a review of the literature across many fields of study. These include organizational management; knowledge systems and systems thinking; stakeholder salience theory; sociology of development; negotiation and social conflict; "common-pool" and natural resource

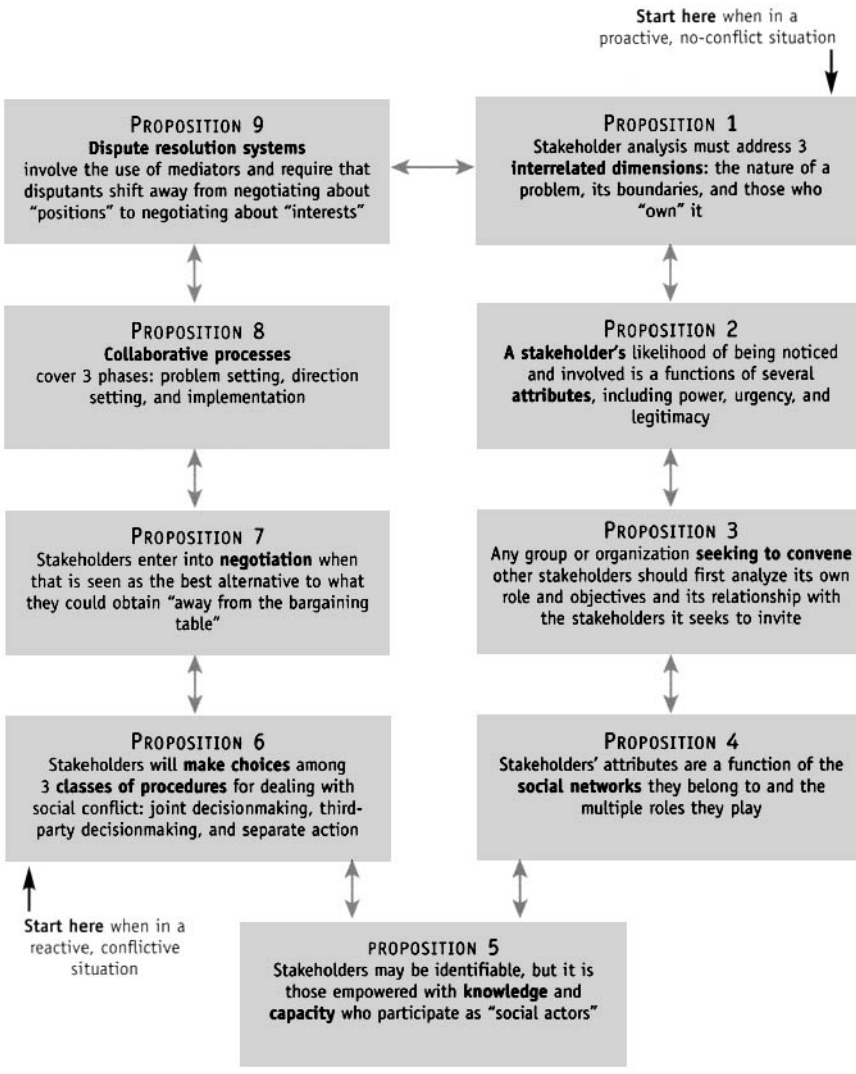

Figure 1. Conceptual framework for stakeholder analysis and conflict managment.

management; sustainable development and regenerative agriculture; adult education and communication; interactive policy-making; and organizational learning.

The first set of propositions (from 1 to 5, inclusive) is particularly relevant to situations in which there is no crisis, but rather where one party is seeking to understand the dynamics of a natural resource management issue or to intervene in it. Propositions 6 to 9 are more specific to decision-making behaviour by groups faced with social conflict. Almost all propositions relate to each other; hence, the conceptual framework in Figure 1 can be read beginning anywhere. The case studies in this volume are used as examples to test the propositions; in turn, the framework serves as an instrument to explore the case studies.

Proposition 1: Stakeholder analysis must address three interrelated dimensions: the nature of a problem, its boundaries, and those who "own the problem"

This proposition is one of the most challenging to comprehend because of the seemingly never-ending interplay between these three dimensions. The arenas in which this interplay evolves are many; they are dynamic, complex, and subject to many interpretations. A brief discussion on the global context in which multiple stakeholder situations arise is, therefore, necessary.

On one hand, there is a global trend toward increasing decentralization of power from state agencies to local government; this is evident in the increasing responsibilities transferred to local authorities and the growing number and importance of civil-society organizations. On the other hand, investment and the globalization of the economy and information concentrate decision-making power in the hands of multinational corporations, around financial centres of power, and in multilateral trade agreements. The literature is rich with debates about the negative impacts and promising opportunities for various sectors arising from the forces of globalization and from decentralization (Kooiman 1993; Hirst 1997). Reconciling the different opinions lies beyond the scope of this paper, but reference to the complexity and dynamic nature of these arenas is necessary to locate this proposition in a controversial, real world.

Although the global trend toward decentralization is recent, the notion of *pluralism* that often accompanies it is not. Pluralism emerged from political theory and philosophy (Kekes 1993; Rescher 1993; Hirst 1997). In simple terms, pluralism represents an acknowledgement of multistakeholder situations. However, there are widely differing interpretations of the philosophical, political, or sociological ramifications of pluralism. Much debate surrounds the issue of whether pluralism is a "slippery middle ground" between relativism and monism (absolutism) (Kekes 1993; Daniels and Walker 1997). In forestry and rural development, "pluralism refers to situations where a number of autonomous and independent groups with fundamentally different values, perceptions, and objectives demand a role in decision-making about natural resource management outcomes" (Anderson et al. 1998).

"Systems thinking" provides a complementary approach for learning about complex situations in that it analyzes, in a systematic manner, the nature of the relationship between stakeholders and what is to be studied. "A system consists of a number of elements and the relationships between the elements" (Flood and Jackson 1991, p. 5). One derivation of systems thinking is "soft systems methodology" that follows a sequence of steps to study the nature of a problem, its boundaries, and the actors who are affected or "own the problem" (Checkland 1981; Naughton 1984; Checkland and Schöles 1990). The approach acknowledges that the different dimensions are interrelated in that the nature of a problem is influenced by the characteristics of the boundaries, which in turn define the actors involved, who in turn have opinions on the attributes of the boundaries. Each dimension changes the other. Systems thinking is useful to interdisciplinary research (Ackoff 1969).

When the boundaries of an issue are ill-defined, they will become a source of conflict, which in turn will spread to disagreements over the definition of relevant stakeholders. In Matagalpa, Nicaragua downstream communities believe that upstream communities should be forced to manage and protect water sources more carefully, as both depend on them for their drinking water (Vernooy and Ashby, this volume). They don't share, however, a common notion of the watershed as a management unit. Elsewhere in the watershed the legal status of lands turned over to farmers during the revolution is contested by their former owners. Both parties deny that the other is a legitimate stake-

holder. These disagreements about the boundaries of a problem and whose problem it is can lead to a spiral of conflict that becomes increasingly difficult to manage (Carpenter and Kennedy 1988). At the heart of such conflicts lie disagreements over the three dimensions of this proposition: Who is a stakeholder? What is the problem? and What are the boundaries? There are no simple answers because there are numerous interactions involved.

This proposition suggests that "systems thinking" and soft systems methods provide relevant ways of studying complex situations. The proposition further suggests that the institutions and the rules that deal with these situations need to evolve toward more flexible, resilient, and adaptive ways of responding to situations in which definitions of stakeholders, boundaries, and the problem need to be agreed on as a first step. In a context as conflictive as the Honduran case, the proposition serves as a lens through which to examine the dimensions of the problem.

Proposition 2: A stakeholder's likelihood of being noticed and involved is a function of several attributes including power, urgency, and legitimacy

The "theory of stakeholder identification and salience" proposed by Mitchell et al. (1997) highlights three stakeholder attributes that merit attention:

- The stakeholder's power to influence the firm;
- The legitimacy of a stakeholder's relationship to the firm; and
- The urgency of the stakeholder's claim on the firm.[2]

On the basis of these attributes, the theory proposes a typology of stakeholders "to whom management should pay attention" (Mitchell et al. 1997). It follows that stakeholders with two or more attributes are likely to be noticed and participate; those without them will tend to be ignored. In the context of this paper, I refer to the issue or problem situation, rather than the "firm."

When local groups lack power and legitimacy in the eyes of public authorities, they may be unable to participate or even take advantage of new laws expressly drafted to delegate authority to them. Others may have to intervene on their behalf. In Lao, the Management of Forest and Forest Land Decree supported community-based natural resource management (Hirsch et al., this volume). However, outside limited pilot areas, implementation of the decree was mostly based on dissemination of the document to the district level, and this was passed on to the village level through a short verbal or written missive. Thus, implementation of this decree depended mainly on the capability and competence of the district staff, not on demand capacity of the beneficiaries. Had the beneficiaries enjoyed some power, or some legitimacy, in combination with some urgency, they would have been less at the mercy of well-intended district staff.

Power remains a key attribute, and this point provides a direct link to the first proposition: in situations where power is concentrated in the hands of an elite, the process of stakeholder identification and boundary and problem definition will be distorted and manipulative. Power is a recurring theme that accompanies many of the propositions in this paper and deserves some additional attention.

[2] In this context, "power" is defined as "a relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done"; "legitimacy" as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, definitions"; and "urgency" as "the degree to which stakeholder claims call for immediate attention" (Mitchell et al. 1997, p. 869).

"Power is the capacity to achieve outcomes ... . Power is not, as such, an obstacle to freedom or emancipation but its very medium ... . The existence of power presumes structures of domination whereby power ... operates" (Giddens 1984, p. 257). When looking at power, we see struggle, negotiation, and compromise; understanding power also involves personal abilities to perceive "edges" that can be taken advantage of, and social networks are the context within which these processes evolve (Villarreal 1992). In other words, the dynamics of power are fluid and complex.

Another broader interpretation of power suggests four "modes": (1) power as attributed to a person, an endowment; (2) the ability of one ego to impose its will on an alter, in social action or interpersonal relations (as was used by Mitchell et al. 1997) and also referred to as "influence" (ODA 1995); (3) "tactical" or "organizational" power that controls the setting for interaction; and (4) "structural power," which is based on Michel Foucault's (1984, p. 428) notion of power as an "ability to structure the possible field of action of others." This fourth notion refers to governing power: "Structural power shapes the social field of action so as to render some kinds of behaviour possible, while making other less possible or impossible" (Wolf 1990, p. 587).

Joint forest management (JFM) was introduced in India by government order in an attempt to forge a partnership between the forestry department and local communities. (Kant and Cooke, this volume). In JFM, communities share both responsibilities and proceeds. When Village Forest Committees (VFCs) and Village Forest Protection Committees (VFPCs) were formed, the officials from the forest department did not inform the communities that they would also have a share in the final timber harvest. Instead, future shortages of forest products were emphasized. The power held by the forest department officials was tactical, in that they controlled the bulk of information reaching the communities, which is indicative of their resistance to giving up control over their interactions with villagers. For instance, no memorandum of understanding was drafted to specify the details of the agreement between the forest department and FPCs and VFPCs, largely because the forestry staff wanted to remain unaccountable. Although the JFM order may have sought a more democratic use of common-property forests, the plan was stalled because the forest department had little incentive to implement the new regime.

Proposition 3: Any group or organization seeking to convene other stakeholders should first analyze its own roles and objectives and its relationship with the stakeholders it seeks to invite

According to Freeman (1984, p. 64), the challenge of stakeholder identification is further complicated by what he calls the "congruence problem." "Analyzing stakeholders in terms of an organization's perception of their power and stake is not enough. When these perceptions are out of line with the perceptions of the stakeholders, all the brilliant strategic thinking in the world will not work." The congruence problem has to do with the assumptions an organization makes about its stakeholders, about how it interacts with them, and on what basis it is willing to negotiate with them.

Stakeholders' attributes, such as power and legitimacy, help explain the odds of a stakeholder becoming a "convener" or a facilitator. With regard to the time element, or *urgency*, some authors suggest that avoidance of urgency on the side of the facilitator is a key component of successful conflict management (Thomas et al. 1996). An organization may be able to convene others temporarily; thereafter, however, the stakeholders will

decide on the role and desired attributes of the convener and on specific functions for other neutral parties, such as facilitators, who may become providers of expert information.

This proposition merits the attention of agencies and projects that assume they have the power and legitimacy to convene and intervene in a rural setting. Much of the literature on stakeholder analysis fails to question this assumption and seems to be directed predominantly at those groups or agencies who seek to convene and assume they will control a project (Warner and Jones 1998). The result is often the imposition of urgency, as a result of administrative deadlines imposed by a distant head office. It is argued here that a convening organization can gain legitimacy by openly acknowledging its own limitations as a convener.

The ability to convene a wide range of stakeholders requires a convener with widespread recognition and neutrality. The Nusa Tenggara Uplands Development Consortium in Indonesia is an interagency network comprising representatives from government agencies, nongovernmental organizations (NGOs), research institutions, and local communities (Fisher et al., this volume). Over time it has acquired power and legitimacy through its members and responded to the time frame or degree of urgency they have agreed on. The Indonesia case study suggests that the government organizations have realized that they need a third-party convener with a reputation as a legitimate, neutral multiactor organization, even though the government organizations may have had the power and urgency to convene on their own.

Proposition 4: Stakeholders' attributes are a function of the social networks they belong to and the multiple roles they play

There is a need to understand how stakeholders interrelate, what multiple "hats" they wear, and what networks and other groups they belong to. Social network theory seeks to understand actors' behaviour by analyzing the types of relationships they experience and the structure of those relationships (Rowley 1997).

Social network analysis is used by authors across many fields of study in a number of ways:

- The review of networks in agricultural research systems (Shrum and Beggs 1995; Shrum 1997);
- Stakeholder networks as sources of innovation in agriculture (Engel 1997) and in business (Wheatley 1992; Wicks et al. 1994);
- Social networks in relation to the notion of "social capital" (Ostrom 1995; Coleman 1966);
- The influence of social networks on stakeholders' relations to natural resources, especially forests (Colfer 1985; Grimble et al. 1994, 1995; Grimble and Chan 1995; Hobley 1996; Grimble and Wellard 1996);
- Policy renewal emerging from social networks (Röling 1997); and
- The study of the spread of infectious diseases in epidemiological studies (Morris 1994).

Recent developments in negotiations research attribute great importance to social context in determining the preference for different procedures to negotiate social conflict (Pruitt and Carnevale 1993). Social context also influences what coalitions stakeholders

join, where coalitions are defined as "subgroups whose purpose is to influence the decision of a larger group" (Polzer et al. 1995, p. 135), as well as different behaviours on the part of mediators (Pruitt and Carnevale 1993).

A social network is "a set of actors and the set of ties representing some relationship — or lack of relationship — between the actors" (Brass et al. 1998). Management writers suggest the need to analyze "the complex array of multiple and interdependent relationships existing in stakeholder environments" (Rowley 1997, p. 890). To do this, they propose two dimensions: "density," as a measure of interconnectedness, and "centrality," referring to an actor's relative position in a network. Of significance here is the notion of understanding stakeholders in the context of the web of relationships within which they are embedded (Granovetter 1985). Among the issues that influence negotiation attitudes, interdependence is of central importance, as actors' attitudes and behaviour are shaped by the fact that they will need to coexist after the period of negotiation (Susskind and Cruikshank 1987).

Proposition 4 suggests that stakeholders are likely to form alliances, or use alliance-forming opportunities, both as bargaining tools and as a means of striking new institutional arrangements. Having options and having a number of agendas can help empower a group. At the same time, switching from a rival to a collaborative mode may be the result of stakeholders' perceptions of future opportunities and interdependencies that merit attention. These decisions are made, modified, and reviewed constantly by stakeholders as they sense the odds of advancing their objectives via different alliances.

Research by Ostrom (1998) suggests that local groups of resource users, sometimes alone and sometimes with outside institutional assistance, have managed to create a wide diversity of institutional arrangements for coping with common-pool resources when they have not been prevented from doing so by central authorities (Ostrom 1998). She notes that they must be in direct communication for this process to develop. When individuals are held apart and unable to communicate face-to-face, they may overuse common-pool resources. This proposition complements proposition 2 in that it focuses on the decision-making behaviour of stakeholders based on their analysis of opportunities and costs in a social context. For a convener, this means that stakeholder behaviour cannot be fully explained on the basis of their attributes.

The social networks surrounding a natural resource may, through time and interaction, create trust among parties with seemingly opposed positions. In the Laguna Merin watershed in Uruguay (Pérez Arrarte and Scarlato, this volume), agreements on innovative natural resource management practices were achieved at the local level among stakeholders with very divergent interests (commercial rice producers, local authorities, and environmentalists). In contrast, the distant central-government agencies and technical institute personnel not part of the social networks were the least willing to modify their positions.

Proposition 5: Stakeholders may be identifiable, but it is those empowered with knowledge and capacity who participate as "social actors"

"Social actors" are those with the capacity to make decisions and act on them; thus, the concept of social actor may be distinct from that of stakeholder (Long 1992). The notion of "human agency" is central to the concept of a social actor: "In general terms, the notion of agency attributes to the individual actor the capacity to process social experience and to devise ways of coping with life ... social actors are 'knowledgeable' and 'capable.'" (Long 1992, pp. 22–23). Ostrom (1995, p. 126) refers to "human capital" in similar terms:

"Human capital is the knowledge and skill that individuals bring to the solution of any problem." Social actors seek to solve problems, learn how to intervene in social events, and continuously monitor their own actions (Giddens 1984). From Long's perspective, the environment cannot be described as a social actor, whereas there is mention of it as a stakeholder in the business literature (Mitchell et al. 1997). As noted by Chevalier and Buckles (this volume), in some cultures ancestors or forest spirits may be considered stakeholders.

This discussion suggests that marginalized actors who may be easily identified as stakeholders will need support through information provision and training to enable them to negotiate and defend positions. Stakeholders who do not have the capacity to make decisions and act on them are unlikely to become part of a collaborative decision-making process. Helping a group become a social actor is one strategy for "leveling a playing field," as it gives legitimacy to a disempowered group; however, unless such a group also gets some sort of political endorsement, its involvement in a negotiation is not guaranteed.

This statement supports proposition 2 regarding a stakeholder's salience. It can be argued that stakeholders are likely to become social actors through the process of becoming involved in separate action, be it political lobbying or civil disobedience. By gaining political clout, community groups may level the playing field, forcing the more powerful stakeholders to negotiate. If the community groups also acquire the skills to prepare proposals and defend them in multistakeholder meetings, then they are in a position to participate at the table as empowered stakeholders.

Proposition 5 is also closely related to proposition 6 on the different procedures available to stakeholders faced with social conflict. The Honduras case (Chenier et al., this volume) describes how the conflict in Copán, which had simmered for many years, came to a head as a result of the ratification of Agreement 169 by the government. If the conflict had not come to a head, the locals would probably never have developed the skills to handle it." The case study provides insight into how delicate this process can be. External material and moral support can be of great value in helping to assure a "level playing-field" for the different actors involved but needs to be planned and implemented with care in order to avoid risking damaging the credibility of the local actors by leading to accusations of external political manipulation. Another example is from the Philippines (Talaue-McManus et al., this volume). In the process of developing the Coastal Development Plan for Bolinao, direct resource users (subsistence fishers, fish vendors) were mobilized, oriented, and empowered through knowledge and skills to participate in a collective process.

Situations like these illustrate the switch from stakeholder analysis in a proactive, nonconflict situation, to stakeholder analysis as part of a range of procedures for dealing with social conflict. The remaining propositions describe common situations where conflict is a given starting point. Daniels and Walker (1996) argue that conflict in natural resource management is not only unavoidable, but also desirable to the extent that it can lead to negotiated, innovative agreements among stakeholders.

Proposition 6: Stakeholders will make choices among three different classes of procedures for dealing with social conflict: joint decision-making, third-party decision-making, and separate action

In natural resource management, conflict is often inevitable (Daniels and Walker 1997; Hildyard et al. 1997, 1998). The growing demand for finite or renewable natural resources to satisfy the needs of different stakeholders is a common source of conflict. As resources become scarce, the competing interests cannot be fully met. Faced with such situations,

stakeholders will make choices about how best to act to pursue their own interests. Stakeholder negotiation will inevitably involve conflicts of interest and trade-offs (Grimble et al. 1995; Grimble and Wellard 1996).

Procedures for dealing with social conflict can be grouped into three classes along a continuum (Pruitt and Carnevale 1993). Numerous factors influence why stakeholders (or "disputants" in negotiation terminology) will opt for one over another, depending on the nature of the conflict, the stage of the negotiation, and the attributes of the stakeholders:

- Joint decision-making
  - Negotiation
  - Mediation
- Third-party decision-making
  - Adjudication
  - Arbitration
  - Autocratic decision-making
- Separate action
  - Retreat
  - Struggle
  - Tacit coordination

The following hypothetical example is used to describe these procedures, using actors from the case study by Oviedo on the Galapagos Islands (this volume).

A tourism operator and local fishers are in a dispute: the first wants to bring tourists to view the aquatic life in a coastal natural reserve; the other makes a living from fishing in those very waters. Negotiation would mean discussing these issues, and mediation would involve the help of a third party. Adjudication would mean going to court, whereas arbitration would involve a hearing and a decision by an official of lesser rank than a judge. Autocratic decision-making occurs when the third party gathers the information directly rather than inviting testimony at a hearing. If one of the disputants gives in — if the tourism operator were to close the business or the fishers stop fishing — it would be yielding or retreating. Struggle occurs if one or both disputants employed harassing moves, such as damaging touring vessels or cutting up fishing nets. Finally, tacit coordination would involve both parties trying to work out an exchange of concessions without talking, such as if the first reduced the number of visits to the site, and the other stopped fishing a particular species.

In this classification, struggle is the only procedure in which the disputants do not collaborate. At any point in the process, disputants will differ in their preference for these various procedures, but with the exception of retreat, they almost always end up using the same procedure.

The choice of any one class of procedure (for example, joint decision-making) will be made when the other classes (third-party decision-making and separate action) do not seem cost-effective or strategic in achieving an objective. Moreover, one type of procedure may give a stakeholder new recognition or additional legal leverage, forcing other stakeholders to consider negotiations.

A problem situation will evolve from struggle and confrontation to a stage of negotiations in which power differences are overcome and the issue at stake is open to modification. In the Cahuita National Park, Costa Rica, a Committee of Struggle was struck in 1995 to oppose a unilateral decision by the state to triple park fees for foreigners, as this

move was expected to reduce tourism significantly (Weitzner and Fonseca Borrás, this volume). The committee represented several stakeholders: the Cahuita tourist industry, community members whose lands had been expropriated without compensation, and the community at large. These groups formed a coalition to protest (separate action) and confront the ministry. Subsequently, the government assigned an ombudsperson as a mediator, which is indicative of recognition by the state of the committee's power and legitimacy.

In contrast, after the signing of the 1997 agreement, the dynamics of the new Management Committee were radically different. This committee includes representatives from different factions and seeks to negotiate around complex issues to do with uncertain property rights and the lack of a management plan for a national park and seafront area. In other words, the situation evolved from separate action to joint decision-making.

The decision of stakeholders to engage in negotiation is influenced by many factors, not simply self-interest. Pruitt and Carnevale (1993) suggest that, beyond self-interest, preference for different conflict management procedures is a function of

- Other interests beyond self;
- Norms;
- Relationships, group process, and networks;
- Coalitions;
- Power to negotiate;
- Mediation; and
- Internal organizational dynamics.

Most disputants have some degree of concern for the other party's welfare, especially if they will continue to interact in future. Norms, including principles of fairness, encourage efforts to achieve equal outcomes and concessions. Past and future relationships will shape positions, especially when stakeholders know they will have to continue interacting with opposing groups on a regular basis. Furthermore, coalitions form within organizations to influence positions; coalitions are common in multistakeholder negotiations where groups of stakeholders may coalesce to build support for a position.

This proposition is closely related to proposition 5 on social actors and to the discussion on the role of power. The major contribution in this proposition is the notion that different procedures exist to deal with social conflict and that stakeholders will choose among them on an ongoing basis.

Proposition 7: Stakeholders enter into negotiation when that is seen as the best alternative to what they could obtain "away from the bargaining table"

BATNA stands for "best alternative to a negotiated agreement." Negotiations hinge on this concept. No group will choose to be part of a negotiation if what it can obtain "away from the bargaining table" is better than it is likely to get by negotiating (Susskind and Cruikshank 1987, p. 81).

The three major procedures for addressing problematic situations are individual action (which also includes unilateral action and no action), going to court (including a continuum of other less costly methods of arbitration, all of which require that the disputant give up control over the decision), or negotiation. All stakeholders will make

choices among the procedures on the basis of perceived odds of advancing their objectives and minimizing costs. Many issues will influence choices (see proposition 6), but all stakeholders will likely address the following questions (often implicitly) when deciding to enter into a joint-decision or negotiation process (Susskind and Cruikshank 1987):

- Can the key stakeholders be identified, and, if so, can they be persuaded to come to the table?
- Are the power relationships sufficiently balanced?
- Can a legitimate spokesperson be found for each group?
- Are there realistic deadlines?
- Can the negotiations steer away from positions and values, toward specific interests?

These questions are strategically important for a convener in deciding whether the right conditions exist for a collaborative process to take place. (For a checklist of conditions that constitute blockages to negotiation, see Annex 3.) Susskind and Cruikshank (1987) further suggest that each major type of stakeholder should ask several additional questions before negotiating. The major stakeholder groups they discuss are public officials, citizen groups, and the private sector.[3]

The public official needs to ask

- Can I participate in a consensus-building process without violating my terms of office?

This may not always be straightforward, given the rules and regulations of public servants and may require the identification of an outside convener and, later, a mediator.

The citizen group needs to ask

- Do we have the resources to participate effectively?
- Can we present a united front?
- Will it help our organization to participate?

The private-sector representative needs to ask

- Do I have the mandate to proceed?
- Is there someone with relevant negotiating experience to represent the organization?
- Do we intend to continue doing business in the same community?

The above list of questions suggests that parties collaborate only if they believe they have something to gain from it (Gray 1989) or when they have no better option than to negotiate (Lee 1993).

[3] Susskind and Cruikshank's (1987) grouping of "for-profit" and "non-profit" organizations may raise some confusion. In their analysis, they are bulked together when they behave in such a manner to "maximize their return on investment" (p. 187). It follows then that, when an NGO behaves differently, it is best described as a citizen group.

To avoid a national decree defining the Galapagos Islands, Ecuador, as a national park, the local population focused on achieving provincial status for their archipelago to gain more legal autonomy (Oviedo, this volume). In parallel, local "separate action" and protest ensued until the more powerful actors (national government, tourism operators from the mainland) came to realize that there was no solution without a genuine involvement of local groups. In other words, initially it was a process of unilateral balancing of power that subsequently led national authorities to seek a negotiated agreement with local stakeholders.

Although multiparty negotiations are common in natural resource management situations (Gray 1989), this proposition underlines the fact that negotiation is sought when no better alternative can be achieved by the stakeholders separately. This suggests that negotiation has costs associated with it and represents a commitment of resources and time that is often made only when other procedures for managing social conflict appear less promising. A sobering example from the Horn of Africa illustrates this proposition (Suliman, this volume).

The armed conflict between the Nuba people (cultivators) and the Arab Baggara groups (nomadic pastoralists) in southern Kordofan, Sudan, arose when the Khartoum government placed the best lands in the hands of Sudanese (Jellaba) absentee landlords, who have introduced mechanized cotton farming. The Baggara and the Nuba had enjoyed peaceful relations for centuries. However, the Baggara began fighting the Nuba after the government persuaded them to join its crusade against the Nuba by giving the Baggara arms and promising them Nuba lands after a quick victory. Not only has this not happened, but misery and great loss of human and animal life has been the outcome for both groups.

Three peace agreements between the Nuba and the Baggara (1993, 1995, and 1996) have been sabotaged by the government by violent means. In other words, the only party gaining from the war has been actively stopping any form of negotiation between the two groups that have most to gain from collaboration. This tragic example describes a national disaster that is comparable, at a smaller scale, to the abuse and unequal distribution of power and land in many rural situations elsewhere in developing countries.

Proposition 8: Collaborative processes follow three major phases: problem setting, direction setting, and implementation

Although conflict in natural resource management is unavoidable, some argue that it can be a source of innovation from which progress often emerges (Daniels and Walker 1996). When parties do choose to negotiate, there are a number of stages common both to collaborative negotiation (Gray 1989) and to consensus-building processes (Annex 4). First, problem setting is the stage in which parties get to know each other and agree on a problem definition. In direction setting, parties agree on the rules of negotiation, define agendas, seek information, assign tasks, and seek an agreement. Implementation of the agreement centres on monitoring and compliance. This last phase commonly includes an agreement on a mechanism for renegotiation.

Stakeholder analysis is a set of tools used most often during the first phase:

- In the identification of stakeholders;
- In the analysis of their legitimacy;

- In gaining an understanding of how stakeholders will relate and what coalitions are likely; and
- In appreciating what trade-offs they may be willing to consider during negotiation and what differing levels of participation can be expected, etc.

The stakeholder groups in Copán, Honduras, identified and described by Chenier et al. (this volume) are the indigenous Chortis, plantation owners, local and national government officials, NGOs, and the tourism industry. Identification of the problems as perceived by the various stakeholders was an important initial step undertaken by the authors that brought to light not only the tensions among the groups but also pointed to a priority problem the Chortis felt they could address. The Chortis had received some land from the government as part of a land reform process but they had no clear idea on how to distribute it among themselves and make it productive. By turning to this problem, they consolidated their position within the community as responsible members and gained support from the municipal government and tourism stakeholders keen to restore peace. This strategy has provided the Chortis with a stronger alliance with which to continue their land claims.

The major phases of Gray's (1989) collaborative process are mirrored by comparable experiences in natural resource management, with modifications with regard to the steps within each process (Table 1).

This proposition is well substantiated by a growing number of operational methods used in natural resource management, many of which have emerged from systems thinking and business management (Daniels and Walker 1997). Field practitioners and researchers who seek to facilitate stakeholder negotiations using these methods can benefit from an appreciation of how this proposition relates to the earlier ones in the conceptual framework. This should help them recognize situations where power differentials are so large that collaborative processes are unlikely to yield result or where the impact of the operational methods will be limited or, at worst, manipulated by the existing powers that dominate.

Table 1. The similarities between the major phases in three collaborative methods.

Collaborative management of protected areas[a]	RAAKS[b]	Collaborative learning for recreation area management[c]
Preparing for the partnership	Problem definition and system identification	Inform stakeholder groups and involve them in process design
Developing the agreement	Analysis of constraints and opportunities	Provide a common base of knowledge about major issues, identify concerns about management of the resource area, generate suggested improvements
Implementing and reviewing the agreement	Policy articulation and intervention planning	Organize the improvements based on different strategic visions for the resource area, debate the improvement sets

[a] Borrini-Feyerabend 1996, p. 29.
[b] Rapid appraisal of agricultural knowledge systems (Engel 1997, p. 166).
[c] Daniels and Walker 1996, p. 86.

Proposition 9: Dispute resolution systems involve the use of mediators and require that disputants shift away from negotiating about "positions" to negotiating about "interests"

In parallel with a collaborative process, there is a notion of designing dispute resolution systems. Pruitt and Carnevale (1993) propose the design of dispute resolution systems as a forward-looking application of negotiation research.

Two central ideals in this perspective are also voice and procedural justice (Pruitt and Carnevale 1993): the first refers to a disputant's need for the opportunity to state a case; the second refers to the importance of agreement between disputants about the fairness of the procedure and some degree of process control. If voice — or participation — of all interested parties is not possible or not allowed, then a process of stakeholder collaboration will be faulty, or worse, used to cover up a consolidation of existing power structures (Hildyard et al. 1997, 1998). This proposition is directly linked to proposition 6, which describes the various procedures stakeholders choose from when they are engaged in social conflict. The typical case of natural resource disputes, in which one group is unilaterally dominating, be it a corporation or government, comes to mind. In such circumstances, it may be more realistic to prepare the ground for dispute resolution. The design of dispute resolution systems is based on a number of principles that are similar to those mentioned in the collaborative management literature examples above (Annex 5).

What is important in this proposition is the move from negotiating about positions (rights) to negotiating about concrete interests. Another, practical way of looking at this is: it is less costly and more rewarding to focus on interests than on rights, which in turn is less costly and more rewarding than focusing on power (Ury et al. 1989). Whether the process originates from conflict or trade-offs (Grimble and Wellard 1996), the thrust is a shift toward a negotiated accommodation of interests and on social learning of new shared perspectives (Röling and Jiggins 1998).

The case study from Uruguay (Pérez Arrarte and Scarlato, this volume) concludes that there is a need for integrated action research to address key issues in the dispute — research that might generate options for consideration by different stakeholders and that remains neutral and trustworthy to all stakeholders involved, including the most marginalized groups. A key challenge in the Uruguay case is the development of a dispute resolution system — one that can be kept on stand-by in the event that the process of action research loses legitimacy in the eyes of the less flexible stakeholders.

The conceptual framework in perspective

The conceptual framework can be summarized as follows: stakeholder analysis is used primarily to analyze and plan around a complex situation and as part of conflict management and negotiation procedures. A systems approach is a natural starting point (proposition 1) for situations that do not require an immediate response to a crisis. In such situations there is a need to

- Embrace the dynamic interrelations between a problem definition, its boundaries, and the stakeholders affected;
- Assess an organization's potential to convene others;
- Describe the attributes of stakeholders and the social context they are embedded in; and

- Seek out and provide support to those actors who will otherwise not be able to become involved in a multistakeholder process.

Where a conflictive situation already exists, a strategic starting point is an understanding of stakeholder preferences for different procedures for dealing with social conflict (proposition 6). In Figure 1, the propositions on the right side (1–5) refer to stakeholder and convenor attributes, to the context that shapes their attributes, and to some mechanisms for engaging disenfranchised stakeholders (proposition 5). On the left side of Figure 1 lie the propositions that deal with procedural choices, behaviour, collaboration, and dispute resolution or management. As several of the case studies in this volume demonstrate, the propositions are interrelated.[4]

Both the Costa Rica (Weitzner and Borrás, this volume) and Ecuador (Oviedo, this volume) examples describe a situation in which a local community stakeholder group was affected by a "decide–announce–defend" (DAD) situation in which a national government agency unilaterally changed the rules of access to a common-pool resource. The stakeholder groups, who made a living directly from that resource, were not invited to a negotiation process, which is symptomatic of the large power imbalance (demonstrated by the DAD situation itself). The stakeholder group chose unilateral action (struggle), gained power by acting in coalition with others, and gained some prominence through acts of civil disobedience. This unilateral action made the stakeholder groups salient enough in the eyes of more powerful stakeholders, who saw their chances of unilateral action becoming less cost-effective. It was at this stage that they invited the community groups to negotiate; in other words, they realized that they had no BATNA. Hence, choices about procedures changed as the crisis escalated and stakeholders sought to even out large power differences.

Conclusion

The above discussion "tests" the applicability of the conceptual framework to the case studies included in this volume. However, several questions deserve consideration.

Question 1: Had a more structured stakeholder analysis been done by the stakeholders, would conflict management have been more successful?

Although all of the case studies in this volume include some stakeholder analysis, there are few accounts of explicit use of stakeholder analysis tools during the negotiation process among stakeholders. One can only speculate that a systematic use of stakeholder analysis tools would have improved the process of negotiation by making relationships more transparent and would thereby have provided tools to all parties for negotiation about more specific issues. A point of caution is necessary here: the terminology and the underlying theoretical foundations presented in this framework are predominantly Western. Indeed, the terminology itself is awkward to translate into other languages. Hence, the lack of reference to stakeholders and to stakeholder analysis is not necessarily an adequate measure of the extent to which the social actors embraced these propositions or some of the tools of analysis associated with them. Furthermore, it is evident that all the case studies in this

[4] In "soft systems methodology," Figure 1 could be described as a "rich picture" in that it seeks to illustrate interrelated propositions that come together to form a conceptual framework (Checkland 1981; Checkland and Schöles 1990).

volume emerged out of existing conflict situations. Hence, it can be argued that a systematic understanding of conflict management situations and options would have been more useful (starting with proposition 6) relative to further attention on stakeholders per se.

Question 2: What type of stakeholder analysis tool would have yielded best results?

This question cannot be answered in a generalized manner, as each context and case study situation would have called for specific criteria and attributes through which to analyze stakeholders. Annex 2 describes the method of "rapid appraisal of agricultural knowledge systems" (RAAKS), which includes 16 steps; at each step, users are asked to choose from a range of tools to analyze their situation according to its specific circumstances. In other words, there are no recipes in stakeholder analysis, only major common phases of inquiry (see Table 1).

Question 3: Who benefits most from participating in stakeholder analysis and negotiation in community-based natural resource management situations?

The case studies suggest that in many situations, multistakeholder negotiation is neither possible nor desirable for powerless groups. Weak, disenfranchised stakeholders stand to lose much from negotiations where power differences are too acute to enable collaboration. Nevertheless, all stakeholders stand to benefit when the negotiation playing field is transparent, so that the decision to venture into a negotiation is based on reliable information.

Stakeholder analysis can also be a stepping stone toward agreements on collaborative management of natural resources. "Comanagement" provides negotiated options to move forward in the context of conflicting interests, in an age of pluralism and new patterns of local governance. Collaborative management seeks to build on locally agreed-to approaches in an adaptive, progressive manner. One desirable outcome of collaboration is that it yields agreements on ways to move forward that emerge from interaction among stakeholders, rather than being imposed from outside (Engel 1997; Holling et al. 1998; Röling and Jiggins 1998).

Stakeholder analysis is a tool, or set of tools, commonly used within most collaborative planning processes. In such instances, it is best described as a set of analytical tools embedded in collaborative or negotiation methods. On the other hand, stakeholder analysis moves to centre stage as a method when it is used to plan an intervention or to understand and analyze a complex situation (Burgoyne 1994; Grimble et al. 1995; ODA 1995; Grimble and Wellard 1996) In such cases, it is common to find stakeholder analysis combined with other planning and appraisal methods that are based on systems thinking and that seek to embrace complexity and the interrelated parts, such as collaborative learning (Daniels and Walker 1997), RAAKS (Engel and Salomon 1997), collaborative management (Borrini-Feyerabend 1996), and PRA (Ramírez 1997).

It is worth returning to the global arena to situate the contribution of this conceptual framework in a broader context. Keohane and Ostrom (1995) argue that neither modern states nor small farmers in remote areas of poor countries can any longer appeal to authoritative hierarchies to enforce rules governing their relations with one another. The "politics of ecology" are a matter of which stakeholders, local and global, gain decision-making authority and enter into negotiations with shared long-term goals (Wyckoff-Baird 1998).

The patterns of power, governance, and governing are shifting toward an interactive "social–political governance" where new forms of interaction occur in policy-making (Kooiman 1993; Bernard and Armstrong 1997; Röling 1997). Heterogeneity and cooperation are the hallmarks of emerging interdependence. Public management today operates in a pluralistic context in which goal consensus cannot be assumed, in which authority is dispersed, in which conflict is legitimate, and in which the various constituents are interdependent and have common interests, however dimly perceived (Metcalfe 1993). In this dynamic and complex context, conceptual and operational frameworks should be built and modified through iterative processes; they should be put to work to assist social actors in understanding the process of negotiation and the opportunities for crafting new relationships.

Annex 1. Examples of analytical tools used in stakeholder analysis

- A typology of tree resource stakeholders in Thailand on a macro- to micro-continuum (Grimble et al. 1995), followed by another matrix classifying the trade-offs and conflicts at each level (Grimble et al. 1995);
- A listing of stakeholder types, coupled with a description of their composition and sensitivities to changes in forestry projects (Hobley 1996);
- Checklists for identifying stakeholders and for drawing out interests, followed by a summary of stakeholders, interests, and the potential of a project impact on each (ODA 1995);
- Stakeholders and a scored ranking on several dimensions: proximity to forest, preexisting rights, dependency, indigenous knowledge, culture–forest integration, power deficit (Colfer 1985);
- Matrices showing stakeholders vis-à-vis the "4R framework" referring to responsibilities, rights, revenues, and relationships (Dubois 1998); and
- Predicting actor behaviour on the basis of actors' preferences assigned to actions and outcomes; how they acquire, process, and apply information; the criteria they use in deciding what course of action to follow; and the resources each actor brings to a situation (Ostrom et al. 1994).

Annex 2: The major phases of RAAKS

An actor-oriented method has been developed for appraising stakeholders and their networks in a systematic and participatory manner: RAAKS (Engel and Salomon 1997). The RAAKS method is relevant in that stakeholder analysis is done systematically and from a number of perspectives. RAAKS covers three phases and 16 steps, as summarized below.

For each step, several tools or "windows" are proposed: some are analytical, some help in synthesis, others are useful in designing options and making choices. The choice of windows or tools for each step is discussed and agreed upon by the group involved in

implementing the RAAKS exercise. RAAKS (Engel and Salomon 1997) is perhaps the most innovative stakeholder analysis tool in the literature in that it requires stakeholder participation in its implementation and it calls for choices of analytical tools to suit the local context at each step:

Phase A: Defining the problem
1. Appraise objective(s)
2. Identify relevant actors
3. Diverse missions
4. Define environment
5. Clarify–redefine the problem

Phase B: Analysis of constraints and opportunities
1. Impact
2. Actors
3. Knowledge networks
4. Integration
5. Tasks
6. Coordination
7. Communication
8. Understanding the social organization for innovation

Phase C: Strategy–action planning
1. Knowledge management
2. Actor potential — who can do what?
3. Strategic commitments to an action plan

Annex 3: Conditions suggesting that the odds of a successful collaboration are poor

- The conflict is rooted in basic ideological differences;
- One stakeholder has power to take unilateral action;
- Constitutional issues are involved, or legal precedents are sought;
- A legitimate convenor cannot be found;
- Substantial power differences exist, or one of more groups of stakeholders cannot establish representation;
- The issues are too threatening because of historical antagonisms;
- Past interventions have been repeatedly ineffective;
- Parties are experiencing perceptual or informational overload and need to withdraw from the conflict; and
- Maintenance of interorganizational relationships represents substantial costs to the partners.

Source: Whetten and Bozeman (1984, p. 31, cited in Gray 1989, pp. 255–256).

Annex 4: Phases of collaboration

Phase 1: Problem setting

- Common definition of a problem
- Commitment to collaborate
  1. Will the present situation fail to serve my interest?
  2. Will collaboration produce positive results?
  3. Is it possible to reach a fair agreement?
  4. Is there parity among the stakeholders?
  5. Will the other side agree to collaborate?
- Identification of stakeholders
- Legitimacy of stakeholders
- Disputes over legitimacy
- Necessary trade-offs
- Differing levels of participation
- Legitimacy within stakeholder groups
- Convenor characteristics
- Insider or outsider
- Convening power
- Legitimate authority
- Skills — capacity to propose a process, identifying additional stakeholders, often by bringing in a third party; having a sense of timing
- Identification of resources

Phase 2: Direction setting

- Establishing ground rules, namely roles of representatives, deadlines, handling confidential information, handling media and publicity, reimbursement for expenses incurred, record of proceedings, determining consensus
- Agenda setting
- Organizing subgroups
- Joint information search
- Searching for "the facts"
- Managing complex and controversial data
- Role of third parties in information search
- Exploring options
- Reaching agreement and closing the deal

Phase 3: Implementation

- Dealing with constituencies
- Building external support
- Structuring, depending on
  - Whether the collaboration leads to information exchange or decision-making
  - How much organizational change is required
  - Who has the resources to accomplish the change
  - Whether the agreements are self-structuring or not
- Monitoring the agreement and ensuring compliance

Source: Gray (1989).

Annex 5: Principles for dispute resolution systems

1. Provide for early discussion of differences;
2. Include several negotiation parties on each side, in the hope that at least one channel will become operational during a crisis;
3. Provide for a multistep negotiation process in which "a dispute that is not resolved at one level of the organizational hierarchy moves to progressively higher levels, with different negotiators involved at each step" (Ury et al. 1989);
4. Give potential negotiators enough authority that people on the other side will find it worthwhile dealing with them;
5. Provide easy access to intermediaries (for example, ombudspeople, mediators) who can encourage negotiation or coordinate the development of a consensus;
6. Teach the disputants problem-solving skills — how to listen, probe for interest, explore creative options;
7. Build in "loop-backs" to negotiation, which move disputants from a right or a power orientation to an interest orientation; and
8. Start with low-cost procedures and move to high-cost ones only if the low-cost ones do not work.

Source: Summarized from Pruitt and Carnevale (1993).

References

Ackoff, R. 1969. Systems, organizations, and interdisciplinary research. *In* Emery, F., ed., Systems thinking. Penguin Books, Middlesex, UK.

Anderson, J.; Clement, J.; Crowder, L. 1998. Accommodating conflicting interests in forestry — emerging concepts from pluralism. Unasylva, 49(194), 3–10.

ASIP (Agricultural Sector Investment Programme). 1998. Systematic stakeholder participation and consultation (draft dated 2 April 1998). ASIP, Ministry of Agriculture, Nairobi, Kenya.

Bernard, A.; Armstrong, G. 1997. Learning and integration: learning theory and policy integration. International Development Research Centre, Ottawa, ON, Canada. Unpublished report.
Borrini-Feyerabend, G. 1996. Collaborative management of protected areas: tailoring the approach to the context. International Union for the Conservation of Nature, Gland, Switzerland.
Brass, D.; Butterfield, K.; Skaggs, B. 1998. Relationships and unethical behaviour: a social network perspective. Academy of Management Review, 23(1), 14–31.
Burgoyne, J.G. 1994. Stakeholder analysis. *In* Cassell, C.; Symon, G., ed., Qualitative methods in organizational research: a practical quide. Sage Publications, New Delhi, India. pp. 187–207.

Carpenter, S.L.; Kennedy, W. 1988. Managing public disputes. Jossey-Bass, San Francisco, CA, USA.
Chambers, R. 1997. Whose reality counts? Putting the first last. ITP, London, UK.
Checkland, P. 1981. Systems thinking, systems practice. John Wiley & Sons, Chichester, UK.
Checkland, P.; Schöles, J. 1990. Soft systems methodology in action. John Wiley & Sons, Chichester, UK.
Coleman, J.S. 1966. Equality of educational opportunity. US Government Printing Office, Washington, DC, USA.
Colfer, C. 1985. Who counts most in sustainable forest management? Center for International Forestry Research, Bogor, Indonesia.

Daniels, D.; Walker, G. 1996. Collaborative learning: improving public deliberation in ecosystem-based management. Environmental Impact Assessment Review, 16, 71–102.
Daniels, S.; Walker, G. 1997. Rethinking public participation in natural resource management: concepts from pluralism and five emerging approaches. Paper presented at the FAO Workshop on Pluralism and Sustainable Forestry and Rural Development, 9–12 Dec 1997, Rome, Italy.
Dubois, O. 1998. Capacity to manage role changes in forestry: introducing the "4Rs" framework. International Institute for Environment and Development, London, UK. Forest Participation Series 11.

Engel, P. 1997. The social organization of innovation: a focus on stakeholder interaction. Royal Tropical Institute, Amsterdam, Netherlands.
Engel, P.; Salomon, M. 1997. Facilitating innovation for development. Royal Tropical Institute, Amsterdam, Netherlands.

Flood, R.; Jackson, M. 1991. Creative problem solving: total systems intervention. John Wiley & Sons, Chichester, UK.
Foucault, M. 1984. The subject and power. *In* Wallis, B., ed., Art after modernism: rethinking representation. New Museum of Contemporary Art, Boston, MA, USA. pp. 417–432.
Freeman, R.E. 1984. Strategic management: a stakeholder approach. Pitman, Boston, MA, USA.
Freeman, R.; Gilbert, D., Jr 1987. Managing stakeholder relations. *In* Prakash, S.; Falbe, C., ed., Business and society: dimensions of conflict and cooperation. Lexington Books, Toronto, Canada. pp. 397–422.

Gass, G.; Biggs, S.; Kelly, A. 1997. Stakeholders, science and decision making for poverty-focused rural mechanization research and development. World Development, 25(1), 115–126.
Giddens, A. 1984. The constitution of society: outline of the theory of structuration. University of California Press, Berkeley, CA, USA.
Granovetter, M. 1985. Economic action and social structure: the problem of embeddedness. American Journal of Sociology, 91, 481–510.
Gray, B. 1989. Collaborating: finding common ground in multiparty problems. Jossey-Bass, San Francisco, CA, USA.
Grimble, R.; Aglionby, J.; Quan, J. 1994. Tree resources and environmental policy: a stakeholder approach. Natural Resources Institute, London, UK. Socio-Economic Series 7.
Grimble, R.; Chan, M.K. 1995. Stakeholder analysis for natural resource management in developing countries. Natural Resources Forum, 19(2), 113–124.
Grimble, R.; Chan, M.K.; Aglionby, J.; Quan, J. 1995. Trees and trade-offs: a stakeholder approach to natural resource management. International Institute for Environment and Development, London, UK. Gatekeeper Series 52.
Grimble, R.; Wellard, K. 1996. Stakeholder methodologies in natural resource management: a review of principles, contexts, experiences and opportunities. Paper presented at the ODA NRSP Socioeconomic Methodologies Workshop, 29–30 Apr, 1996, London, UK.

Hardin, G. 1968. The tragedy of the commons. Science, 162, 1243–1248.

Hildyard, N.; Hedge, P.; Wolverkamp, P.; Reddy, S. 1997. Same platform: different train. Pluralism, participation and power. Paper presented at the FAO Workshop on Pluralism and Sustainable Forestry and Rural Development, 9–12 Dec 1997, Rome, Italy.

——— 1998. Pluralism, participation and power. Forests, Trees and People Newsletter, 35 (Mar), 31–35.

Hindess, B. 1986. Actors and social relations. *In* Wardell, M.; Turner, S., ed., Sociological theory in transition. Allen & Unwin, Boston, MA, USA. pp. 113–126.

Hirst, P. 1997. From statism to pluralism: democracy, civil society and global politics. UCL Press, London, UK.

Hobley, M. 1996. Participatory forestry: the process of change in India and Nepal. ODI, London, UK.

Holling, C.; Berkes, F.; Folke, C. 1998. Science, sustainability and resource management. *In* Berkes, F.; Folke, C., ed., Linking social and ecological systems: management practices and social mechanisms for building resilience. Cambridge University Press, Cambridge, UK. pp. 342–362.

Kekes, J. 1993. The morality of pluralism. Princeton University Press, Princeton, NJ, USA.

Keohane, R.; Ostrom, E. 1995. Introduction. *In* Keohane, R.; Ostrom, E., ed., Local commons and global interdependence: heterogeneity and cooperation in two domains. Sage Publications, London, UK. pp. 1–26.

Kooiman, J., ed. 1993. Modern governance: new government–society interactions. Sage Publications, London, UK.

Lee, K. 1993. Compass and gyroscope: integrating science and politics for the environment. Island Press, Washington, DC, USA.

Long, N. 1992. From paradigm lost to paradigm regained? *In* Long, N.; Long, A., ed., Battlefields of knowledge: the interlocking of theory and practice in social research and development. Routledge, London, UK. pp. 16–43.

Metcalfe, L. 1993. Public management: from imitation to innovation. *In* Kooiman, J., ed., Modern governance: new government-society interactions. Sage Publications, London, UK. pp. 173–189.

Mitchell, R.; Agle, B.; Wood, D. 1997. Towards a theory of stakeholder identification: defining the principle of who and what really counts. Academy of Management Review, 22(4), 853–886.

Morris, M. 1994. Epidemiology and social networks: modeling structured diffusion. *In* Wasserman, S.; Galaskiewicz, J., ed., Advances in social network analysis: research in the social and behavioral sciences. Sage Publications, Thousand Oaks, CA, USA. pp. 26–52.

Naughton, J. 1984. The soft systems analysis: an introductory guide. Complexity, management and change: applying a systems approach. The Open University Press, Milton Keynes, UK.

ODA (Overseas Development Administration). 1995. Guidance note on how to do stakeholder analysis of aid projects and programmes. ODA, London, UK.

Ostrom, E. 1995. Constituting social capital and collective action. *In* Keohane, R.O.; Ostrom, E., ed., Local commons and global interdependence. Sage Publication, London, UK. pp. 126–160.

——— 1998. Coping with tragedies of the commons. Paper presented at the 1998 Annual Meeting of the Association for Politics and the Life Sciences, 3–6 Sep 1998, Boston, MA, USA; Directorate Guest Lecture at the International Institute for Applied Systems Analysis, Vienna, Austria.

Ostrom, E.; Gardner, R.; Walker, J. 1994. Rules, games, and common-pool resources. University of Michigan Press, Ann Arbor, MI, USA.

Polzer, J.; Mannix, E.; Neale, M. 1995. Multiparty negotiation in its social context. *In* Kramer, R.; Messick, D., ed., Negotiation as a social process. Sage Publications, London, UK. pp.123–142.

Pretty, J.; Guijt, I.; Scoones, I.; Thompson, J. 1995. A trainer's guide for participatory learning and action. International Institute for Environment and Development, London, UK.

Pruitt, D.; Carnevale, P. 1993. Negotiation in social conflict. Brooks/Cole Publishing, Pacific Grove, CA, USA.

Ramírez, R. 1997. Understanding farmers' communication networks: combining PRA with agricultural knowledge systems analysis. International Institute for Environment and Development, London, UK. Gatekeeper Series 66.

Rescher, N. 1993. Pluralism: against the demand for consensus. Clarendon; Oxford University Press, Oxford, UK.

Rowley, T. 1997. Moving beyond dyadic ties: a network theory of stakeholder influences. Academy of Management Review, 22(4), 887–910.

Röling, N. 1997. Emerging knowledge systems thinking: the renewal of policy theory for facilitating agricultural innovation. *In* The role of research in agricultural policy-making in sub-Saharan Africa. Feldafing, Germany, 7–11 April, 1997. Bundesministerium fur wirtschaftliche Zusammenarbeit und Entwicklung, Agricultural Division, Bonn, Germany; Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn, Germany; and Technical Center for Agricultural and Rural Cooperation, Wageningen, Netherlands.

Röling, N.; Jiggins, J. 1998. The ecological knowledge system. *In* Röling, N.; Wagemakers, M., ed., Facilitating sustainable agriculture: participatory learning and adaptive management in times of environmental uncertainty. Cambridge University Press, Cambridge, UK. pp. 283–311.

Röling, N.; Wagemakers, M., ed. 1998. Facilitating sustainable agriculture: participatory learning and adaptive management in times of environmental uncertainty. Cambridge University Press, Cambridge, UK.

Shrum, W. 1997. A social network approach to analyzing research systems: a study of Kenya, Ghana and Kerala (India). International Service for National Agricultural Research, The Hague, Netherlands.

Shrum, W.; Beggs, J. 1995. Methodology for studying research networks the developing world: generating information for science and technology policy. Unpublished report to Advisory Council for Scientific Research in Development Problems, Ministry of Development Coorperation, The Netherlands.

Susskind, L.; Cruikshank, J. 1987. Breaking the impasse. Basic Books, New York, NY, USA.

Thomas, G.; Anderson, J.; Chandrasekharan, D.; Kakabadse, Y.; Matiru, V. 1996. Levelling the playing field: promoting authentic and equitable dialogue under inequitable conditions. *In* Forests, trees and people II. Community Forestry Unit. E-Conference on addressing natural resource conflicts through community forestry, Food and Agriculture Organization, Rome, Italy. Conflict Management Series. pp. 165–180.

Trist, E.L. 1983. Referent organizations and the development of interorganizational domains. Human Relations, 36(3), 269–284.

Ury, W.; Brett, J.; Goldberg, S. 1989. Getting disputes resolved. Jossey-Bass Publishers, San Francisco, CA, USA.

Villarreal, M. 1992. The poverty of practice: power, gender and intervention from an actor-oriented perspective. *In* Long, N.; Long, A., ed., Battlefields of knowledge: the interlocking of theory and practice in social research and development. Routledge, London, UK. pp. 247–267.

Warner, M.; Jones, P. 1998. Assessing the need to manage conflict in community-based natural resource projects. ODI Natural Resouce Perspectives, 35 (Aug).

Wheatley, M. 1992. Leadership and the new science: learning about organizations for an orderly universe. Berret-Koehler, San Francisco, CA, USA.

Whetten, D.A.; Bozeman, B. 1984. Policy coordination and interorganizational relations: some guidelines for sharing power. Presented at the Conference on sharing power. Humphrey Institute and School of Management, University of Minnesota, 10 May.

Wicks, A.; Gilbert Jr, D.; Freeman, R. 1994. A feminist reinterpretation of the stakeholder concept. Business Ethics Quarterly, 4(4), 475–497.

Wolf, E. 1990. Facing power: old insights, new questions. American Anthropologist, 92(3), 586–596.

Wyckoff-Baird, B. 1998. The power of nature: negotiating decentralization processes for biodiversity conservation. Analysis and Adaptive Management Program, Biodiversity Support Program, Washington, DC, USA.