

World Forests XII

John A. Parrotta
Ronald L. Trostler *Editors*

Traditional Forest-Related Knowledge

Sustaining Communities, Ecosystems
and Biocultural Diversity



Traditional Forest-Related Knowledge

WORLD FORESTS

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Editors

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*To those who came before and taught us
what they had learned.*

Preface

In this era of rapid population growth and ever-increasing consumption of natural resources, concern grows for the fate of the world's forests and their capacity to provide multiple goods and environmental services. Forest management worldwide is evolving from its earlier emphasis on wood production towards a broader consideration of multiple economic, environmental, cultural and social objectives. New approaches such as “sustainable forest management” and the “ecosystem approach” seek to achieve a balance between society's increasing demands for forest products and benefits and the preservation of forest health and biological diversity. This balance is increasingly recognized as critical to the survival of forests and to the prosperity of forest-dependent communities. Such approaches, however, are not new. Long before the birth of forest science and ‘scientific’ forest management, traditional societies – indigenous and local communities – have managed forests and associated ecosystems in ways that sustained their livelihoods and cultures without jeopardizing the capacity of forest ecosystems to provide for future generations.

Forest managers, policy-makers, and the scientific community have too long ignored, denigrated, and even suppressed the knowledge and experiences of traditional societies. Holders and users of traditional knowledge face an uphill battle in most parts of the world to protect their lands, their practices and institutions, and their cultural identities in the face of injustice and an array of political, economic, social, cultural, and environmental pressures. Growing awareness of the importance of broader environmental, social and cultural values of forests supports increased recognition of traditional forest-related knowledge. These ‘alternative’ knowledge systems complement formal forest science and have a vital role to play in our quest for sustainability at local, regional, and global levels. Fulfilling this role will require a better understanding of, and respect for, traditional forest-related knowledge, practices and innovations – as well as support for the cultural values and social institutions of indigenous and local communities.

Current efforts to bridge the significant gaps that exist between the forest science community and the holders and users of traditional forest knowledge need to expand. Recognizing this need, the International Union of Forest Research Organizations

(IUFRO) established a Task Force on Traditional Forest Knowledge in 2005. Its objectives were to foster a broader understanding of traditional forest knowledge within the forest science community and to critically evaluate the opportunities and limitations for enhanced collaboration among these two broad communities and decision-makers. Between 2006 and 2009, the IUFRO Task Force organized a series of conferences in Europe, Asia, Africa and North America in partnership with a variety of collaborating institutions and organizations. Several publications resulting from these meetings have helped to raise the profile of traditional forest-related knowledge within the global forest science community.¹

We hope that this book, the collective effort of an international, multi-disciplinary group of scientists, serves to improve our understanding of traditional forest-related knowledge, its history and its relationships with formal forest science. We believe that this effort will help both to inform and to promote greater attention to, and consideration of, the knowledge possessed by traditional communities. We further hope that it will encourage increased collaborative research aimed at the preservation, development and application of traditional knowledge to enhance culturally, ecologically, and economically sustainable forest ecosystem management.

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¹For more information see: <http://www.iufro.org/science/task-forces/former-task-forces/traditional-forest-knowledge/>

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Chapter 1

Introduction: The Growing Importance of Traditional Forest-Related Knowledge

Ronald L. Trosper and John A. Parrotta

Abstract The knowledge, innovations, and practices of local and indigenous communities have supported their forest-based livelihoods for countless generations. The role of traditional knowledge—and the bio-cultural diversity it sustains—is increasingly recognized as important by decision makers, conservation and development organizations, and the scientific community. However, there has long existed a lack of understanding of, and an uneasy relationship between, the beliefs and practices of traditional communities and those of formal forest science. This mutual incomprehension has a number of unfortunate consequences, both for human societies and our planet's forests and woodlands, which play out both on solid ground in many parts of the world as well as in international policy arenas. In this chapter, we define traditional forest-related knowledge, and explore the relationships between traditional knowledge systems and scientific approaches. We follow with an overview of the scope and central questions to be addressed in subsequent chapters of the book, and then provide an overview of international and intergovernmental policy processes that affect traditional knowledge and its practitioners. Finally, we introduce some of the major international programmes and research initiatives that focus on traditional forest-related knowledge and its applications for sustaining livelihoods in local and indigenous communities in a world struggling to deal with environmental, cultural, social, and economic change.

Keywords Biocultural diversity • Forest policy • Forest management • Indigenous peoples • Knowledge systems • Sustainability • Traditional communities • Traditional knowledge • United Nations

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1.1 Introduction

After being dominated for centuries by the singular purpose to create and maintain the flow of wood fibre from forests, forest management throughout the world has moved in major ways to incorporate other values. This change in the ‘paradigm’ of forestry is widely recognized (Mery et al. 2005) and was mostly driven by pressures from outside of forestry—particularly the increased political power of environmental non-governmental organizations. In the United States, for example, the passage of laws protecting endangered species, combined with a strong judicial system, created a change in orientation for forest management towards species protection. This change occurred at the national level, however, and local values regarding forests are not necessarily fully devoted to preservation of species. The use of forests for other purposes, such as generation of ecosystem services or wildlife, is also considered essential at local levels. Among the ecosystem services of significance are clean water, recreation, and provision of livelihood resources such as firewood, food, and medicine.

Clearly, the concerns at national and international levels for preservation of biodiversity and sequestration of carbon, while contributing to the shifting forest management paradigm, do not necessarily include the concerns of local communities. In some regions, large corporations concerned with timber values and large environmental non-governmental organizations, have agreed among themselves to divide up landscapes between protected areas and areas of timber production, leaving out the other interests that exist in such landscapes. Indigenous peoples and other local forest users have objected (Davidson-Hunt et al. 2010).

These objections by local people raise the vital issue of how the interests and knowledge of all people can be incorporated in forest management. As Fortmann (2008) suggests, both ‘conventional science’ and ‘civil science’ are needed, and the question that applies to both is: How can we learn what we need to know and understand in order to create, sustain, and enhance healthy ecosystems and human communities? The question then arises of how to add such knowledge to the knowledge pool in a mutually beneficial way—that is, in a manner allowing the respectful and appropriate use of traditional forest-related knowledge, and discouraging the extraction of such knowledge without benefitting those who developed it?

Traditional knowledge, innovations, and practices have long sustained the livelihoods, culture, identities, and the forest and agricultural resources of local and indigenous communities throughout the world. Traditional forest-related knowledge (TFRK) is of particular importance to indigenous communities, peoples, and nations, whom Martínez Cobo (1986/7) defined as:

... those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them [who] form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system....

Indigenous peoples comprise approximately 5% of the world's population (between 250 and 300 million people), representing up to 5,000 different cultures on all continents and throughout the Pacific islands. The Asia-Pacific region is home to the largest number of indigenous peoples, approximately 60–70% of the world's total (Galloway-McLean 2010). These communities account for most of the world's cultural diversity (Gray 1991). Indigenous communities manage an estimated 11% of the world's forest lands and customarily own, occupy, or use, 22% of the earth's total land surface; they protect and manage an estimated 80% of the planet's biodiversity. These communities reside in or adjacent to approximately 85% of the world's protected areas (Galloway-McLean 2010).

Yet the survival of indigenous peoples and the cultural diversity they represent continues to be threatened today, as it has for centuries in most parts of the world. Land dispossession, large-scale development projects, and efforts by governments and the dominant societies they represent to 'assimilate' indigenous peoples are major challenges for these communities and their cultures. Of the some 7,000 languages today, it is estimated that more than 4,000 are spoken by indigenous peoples. Language specialists predict that up to 90% of the world's languages are likely to become extinct or threatened with extinction by the end of the century (UN 2009).

The link between cultural diversity and biological diversity has been increasingly recognized in recent years by the international scientific and policy communities. In 1988 during the First International Congress of Ethnobiology held in Belém, Brazil, scientists and representatives of indigenous and local communities from around the world discussed a common strategy to halt the rapid loss of the world's biological and cultural diversity. These discussions considered the unique ways in which indigenous and traditional peoples perceive, use, and manage their natural resources and how programmes can be developed to guarantee the preservation and strengthening of indigenous communities and their traditional knowledge. The Declaration of Belém, an output of this meeting, outlined the responsibilities of scientists and environmentalists in addressing the needs of local communities and acknowledged the central role of indigenous peoples in all aspects of global planning. In the intervening years the concept of 'bio-cultural diversity' (the total variety exhibited by the world's natural and cultural systems) has emerged as an increasingly important concept through the recent work of a number of scholars (Posey 1999; Maffi 2001, 2005; Harmon 2002; Moore et al. 2002; Sutherland 2003; Loh and Harmon 2005).

Among indigenous communities, traditional knowledge is embedded and expressed in their languages, cultural values, rituals, folklore, land-use practices, and community-level decision-making processes. It is inextricably linked to indigenous peoples' identity, their experiences with the natural environment, and their territorial and cultural rights. In these communities, this knowledge is usually collectively owned and is transmitted orally from generation to generation. Passing this knowledge on to future generations is therefore considered to be very important to sustain their knowledge as well as their cultures and identities (Collings 2009). Developed from long experience and experimentation within local and indigenous communities, traditional forest-related knowledge has historically been dynamic, adapting to changing environmental, social, economic, and political conditions.