BOOKS

State of the art in forest fire management

Community-based fire management: a review. 2011. FAO Forestry Paper No. 166. Rome, FAO. ISBN 978-92-5-107094-9.

The concept of community-based fire management (CBFiM) emphasizes the importance of local communities in policy development and fire management practices.

This publication is based on the experiences of FAO and partners in CBFiM. It highlights the state of the art in CBFiM and provides updated information that complements the approach published previously in the Fire Management Voluntary Guidelines.

Case studies from three continents highlight the importance of community access to land and natural resources, particularly in relation to fire management decision-making. The publication emphasizes the need to include CBFiM in the planning and implementation of projects for reducing emissions from deforestation and forest degradation.

The publication defines current limiting factors of implementation while underlining the importance of effective partnerships within and outside communities. It concludes with a call to continue the development of tools and resources to assist CBFiM practitioners with their implementation of CBFiM.

Also available online: www.fao.org/docrep/015/i2495e/i2495e00.htm.

For more information on FAO's fire management programme, visit: www.fao.org/forestry/firemanagement/en/.

Climate change, wild animals – and their habitats

Wildlife in a changing climate. 2010. FAO Forestry Paper No. 167. Rome, FAO. ISBN 978-92-5-107089-5.

For the past 20 years, climate change has been high on the international agenda. Together with desertification, soil degradation and biodiversity loss, it is widely recognized as the major environmental threat the world is facing. Evidence is increasing that warming and other climate-related changes are happening more quickly than anticipated, and prognoses are becoming worse.

This publication analyses and presents how climate change affects or will likely affect wild animals and their habitats. Although climate change has already been observed and monitored over several decades, there are not many long-term studies on how the phenomenon is affecting wildlife. There is growing evidence, however, that climate change exacerbates other major human-induced pressures such as encroachment, deforestation, forest degradation, land-use change, pollution and overexploitation of wildlife resources.

Case studies describe some of the body of evidence and provide projections of likely scenarios. An emphasis of this book is on tropical terrestrial ecosystems. Subtropical, temperate and boreal regions, as well as coastal areas and inland waters, are covered to a lesser degree.

The publication not only highlights climate-induced changes and their likely consequences, it also provides useful and up-to-date information on how these consequences could be addressed by skilful measures of adaptive management. The findings and suggested measures explore current knowledge and propose a way forward.

Also available online: www.fao.org/forestry/30143-0bb7fb87ece780936a2f55130c87caf46.pdf.

To watch a video on mountain gorillas in Rwanda, based on the publication, visit: www.youtube.com/watch?v=PAR7Mwv3848.

For more information on FAO's wildlife and protected area management programme, visit: www.fao.org/forestry/wildlife/en/.

Advancing the use of assisted natural regeneration

Forests beneath the grass: proceedings of the regional workshop on advancing the application of assisted natural regeneration for effective low-cost forest restoration. 2011. Regional Office for Asia and the Pacific Publication 2010/11. Bangkok, FAO. ISBN 978-92-5-106639-3.

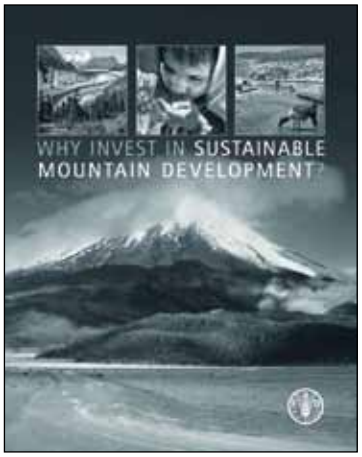
Although forests have been increasingly recognized for the wide range of environmental and social values essential for our planet's well-being, unsustainable forest and land-use practices continue to destroy and degrade millions of hectares of forest in Asia and the Pacific each year. Vast areas of deforested and degraded lands have been taken over by highly invasive grasses such as *Imperata cylindrica*. These largely unproductive grasslands harbour little biodiversity and provide very few livelihood options for local people.

Assisted natural regeneration (ANR) is a forest restoration and rehabilitation practice successfully used for converting *Imperata cylindrica* and other grass-dominated areas into productive forests. It is a simple, inexpensive and effective technique that relies on the natural processes of plant succession, including the regeneration and growth of indigenous species. ANR application is based on fire prevention and management, control of grazing, suppression of grasses and nurturing of seedlings and saplings of indigenous trees. Experiences with ANR demonstrate that this approach is particularly successful in engaging local communities, reducing the risk of forest fire and creating new income-generating opportunities.

This publication presents the proceedings of a regional workshop, convened in the Philippines in 2009, on advancing the application of ANR for effective, low-cost forest restoration.

Also available online: www.fao.org/docrep/014/i1734e/i1734e00.htm.

Watch a video about regenerating forests in the Philippines: www.youtube.com/watch?v=JVUNajoHmi8.



Mountains on the international agenda

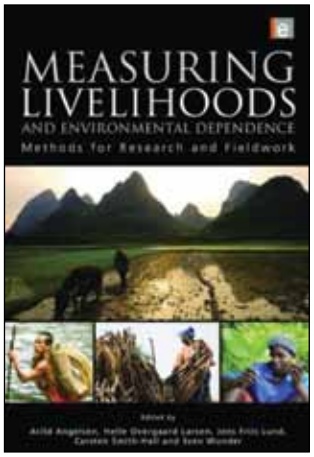
Why invest in sustainable mountain development? 2011. Rome, FAO. ISBN 978-92-5-107012-3.

Mountains cover approximately one-quarter of the world's surface and are home to 12 percent of the human population. By providing freshwater and other key ecosystem services to more than half of humanity, mountain ecosystems play a crucial role in the development of the planet and contribute significantly to the well-being of human societies. This booklet summarizes state-of-the-art information on the characteristics of and threats to mountain ecosystems, the ecosystem services they provide and the impacts of climate change; explains approaches to sustainable mountain development, including natural resource management, economic opportunities and mountain policies and governance; and describes the way forward and provides recommendations for addressing sustainable mountain development at the global and local levels.

The booklet is addressed primarily to those policy- and decision-makers who are responsible for finding a balance between socio-economic development and environmental conservation thrusts. It shows that sustainable mountain development plays a fundamental role in addressing current global challenges and therefore requires and deserves a prominent place on the international agenda.

Also available online: www.fao.org/docrep/015/i2370e/i2370e.pdf.

For more information on FAO's Watershed management and mountains programme, visit: www.fao.org/forestry/watershedmanagementandmountains.



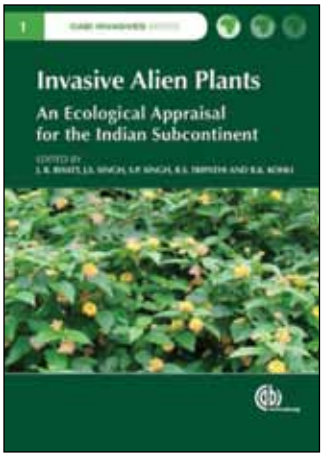
Methods for quantifying rural livelihoods

Measuring livelihoods and environmental dependence: methods for research and fieldwork. A. Angelsen, H.O. Larsen, J.F. Lund, C. Smith-Hall & S. Wunder, eds. 2011. London, Taylor & Francis, Inc. ISBN 978-1-84971-132-6.

Measuring rural livelihoods and understanding natural resource dependence are keys for improving living conditions and decreasing poverty in rural areas. Conducting research in the field is often challenging; many studies suffer from weaknesses in methods and problems in implementing research. This book gives guidance on the design and implementation of household and village surveys in developing countries that aim to collect data and assess rural livelihoods quantitatively.

The book is based on the experiences of the Poverty Environment Network, an international research project and network on the linkages of poverty, environment and forest resources. It describes the entire research process step by step, starting from the development of the research proposal to the selection of sampling techniques and design of questionnaires. It covers issues such as the valuation of non-marketed products and the organization of the fieldwork. The book concludes with chapters on data entry and analysis, as well as on how to communicate research results to support and strengthen evidence-based policy making. The various research and fieldwork methods presented in the book are complemented with practical field experiences.

This practical handbook presents a solid methodological framework for students, researchers and professionals designing and conducting surveys to quantify rural livelihoods.



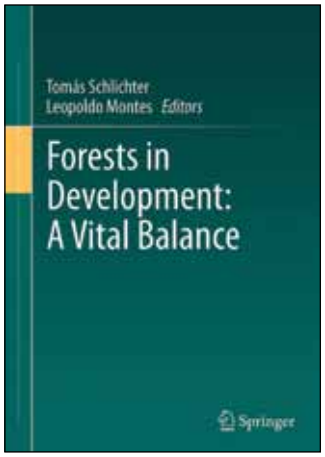
Invaders of the Indian subcontinent New CABI series

Invasive alien plants: an ecological appraisal for the Indian subcontinent. CABI Invasives Series No. 1. J.R. Bhatt, J.S. Singh, S.P. Singh, R.S. Tripathi & R.K. Kohli, eds. 2011. Wallingford, UK & Cambridge, USA, CAB International. ISBN 978-1-84593-907-6.

Invasive alien species are a major threat to biodiversity and ecosystems throughout the world. In India, a country with 4 of the 34 world's important "biodiversity hotspots", the invasion of alien plants means risking a national ecological disaster with major social and economic consequences.

Currently, there is insufficient information about invasive alien plants. Their distribution, rate of spread and adaptability to new environments are relatively unknown. This book reveals existing and potential invaders of the Indian subcontinent and evaluates their environmental impact and the level of risk they pose to native species. It suggests steps to manage the spread of these invaders and limit the damage they cause. With a comprehensive section on management and legislation, this book should be of interest to policy-makers, as well as to researchers of invasive plants, worldwide.

The CABI Invasive Species Series addresses all topics relating to invasive species. Aimed at researchers, upper-level students and policy-makers, titles in the series provide international coverage of topics related to invasive species, including both a synthesis of facts and discussions of future research perspectives and possible solutions.



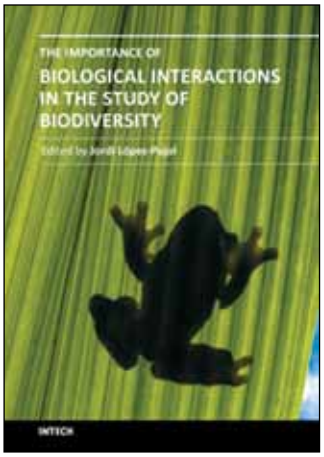
Beyond the XIII World Forestry Congress

Forests in development: a vital balance. T. Schlichter & L. Montes, eds. 2012. Dordrecht, the Netherlands, Heidelberg, Germany, London & New York, USA, Springer. ISBN 978-94-007-2575-1; e-ISBN 978-94-007-2576-8. DOI 10.1007/978-94-007-2576-8.

Forests in development: a vital balance shows some of the main advances in forestry over the six years between the XII World Forestry Congress in Quebec, Canada, and the XIII World Forestry Congress held in Buenos Aires.

The book covers most of the themes of the XIII World Forestry Congress, from biodiversity through production, policies, environmental services and economic aspects, linked by sustainability. It provides a comprehensive view of forestry today, conveying its different aspects through one solid piece addressed by authors whose work denotes a concept of sustainable forest management that is not so much a puzzle laboriously put together as a many-faced unity, steered to achieve, ultimately, a better quality of living for present and future generations.

A persistent theme throughout the chapters reflects the dynamics of changes acting upon forests and forestry and the adaptation of policies, management and objectives, if they are to continue providing support to societies. Among topics addressed are: what the aims of forest management will be, in the face of these changes; drivers that regulate forest growth and its relation to the ecosystem and ecosystem services, and the influence of these factors on forest management; the future of finance in forestry; ecosystem health, taking into account a changing climate; information for forest plantation management; bioenergy production; and other technical, economic and political aspects.



Biodiversity and biological interactions

The importance of biological interactions in the study of biodiversity. J. López-Pujol, ed. 2011. Rijeka, Croatia, InTech. ISBN 978-953-307-751-2. Open Access, available at: www.intechopen.com/books/the-importance-of-biological-interactions-in-the-study-of-biodiversity.

The term "biodiversity" was coined in the mid 1980s but became popularized in 1992 at the United Nations Conference on Environment and Development (held in Rio de Janeiro, Brazil). According to the Convention on Biological Diversity, which came into force soon after the Rio summit, biodiversity is defined as "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems". This definition clearly states that the term comprises all the variety of life, in all its manifestations, at all its levels of organization, and including their complex interactions. The biological interactions are, thus, a central aspect of the biological diversity. There is not much sense in studying a single species without taking into account the rest of the species occurring in that habitat and how they interact. However, interactions should be studied in their broadest sense, i.e. considering not only the relationships between living organisms, but also those between living organisms and the abiotic elements of the environment (e.g. soil, water and climate).

This volume contains 19 contributions illustrating the state of the art of academic research in the field of biological interactions in their widest sense; that is, not only the interactions between living organisms, but also those between living organisms and abiotic elements of the environment, as well as those between living organisms and human living organisms.