



Transforming rural livelihoods and landscapes Sustainable improvements to incomes, food security and the environment

Nicholls, T., Elouafi, I., Borgemeister, C., Campos-Arce, J.J., Hermann, M., Hoogendoorn, J., Keatinge, J.D.H., Kelemu, S., Molden, D.J. and Roy, A., *October 2013, Association of International Research and Development Centers for Agriculture (AIRCA)*, ISBN: 978-92-95098-31-2

In economically sustainable rural communities, agriculture is perceived as a respected profession that provides an adequate living, and farmers are motivated to stay in the rural landscape rather than seeking higher income in the cities. Sustainable agriculture therefore requires farms that operate at an economically viable scale, and farmers who can make informed decisions about the production and marketing of their output. Thus, any landscape strategy must also have a vision of how to help communities make businesses out of their activities in the environment.

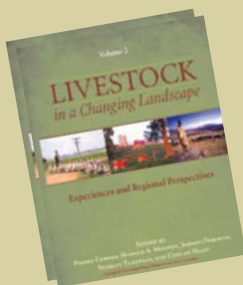
The need for integrated action to deliver sustainable agricultural intensification at the landscape scale has stimulated the formation of the Association of International Research and Development Centres for Agriculture (AIRCA, www.airca.org), a nine-member alliance focused on increasing food security by supporting smallholder agriculture and rural enterprise within healthy, sustainable and climate-smart landscapes. The member organizations all have a proven track record of research, development and implementation, working closely with farmers, extension systems, national research institutes, non-governmental organizations (NGOs) and the private sector across a wide range of crops and ecosystems. This paper sets out our combined experience of successful approaches, opportunities and challenges in moving farmers from a subsistence to a business basis – and their communities from poverty to prosperity.

Livestock in a Changing Landscape - Volume 2 Experiences and Regional Perspectives

Pierre Gerber, Harold A. Mooney, Jeroen Dijkman, Shirley Tarawali, Cees de Haan (Eds), 2010, *Island Press, Washington, DC, USA*, ISBN (paper) 978-1-59726-673-4

Livestock in a Changing Landscape is a collaborative undertaking facilitated by the Livestock, Environment and Development Initiative (LEAD), an inter institutional effort coordinated by the UN Food and Agriculture Organization (FAO), the Scientific Committee on Problems of the Environment (SCOPE), the Swiss College of Agriculture (SHL) of the Bern University of Applied Sciences, the French Agricultural Research Centre for International Development (CIRAD), the International Livestock Research Institute (ILRI-CGIAR), the CGIAR-coordinated System-wide Livestock Programme consortium, and the Woods Institute for the Environment at Stanford University.

This book brings together the mosaic of patterns and draws the variability of “changing landscapes” in which the livestock sector operates. The companion volume resulting from this endeavor – Livestock in a Changing Landscape: Drivers, Consequences, and Responses – gives a global perspective on the livestock sector trends. The two volumes together provide a full picture of the impacts of livestock on the environment, social systems, and human health, both globally and locally, and the various approaches that are being or could be undertaken to alleviate negative impacts.



Regreening the Bare Hills: Tropical Forest Restoration in the Asia-Pacific Region

David Lamb, *World Forests*, Vol. 8, 2011, XXII, 550 p.

In *Regreening the Bare Hills: Tropical Forest Restoration in the Asia-Pacific Region*, David Lamb explores how reforestation might be carried out both to conserve biological diversity and to improve the livelihoods of the rural poor. While both issues have attracted considerable attention in recent years, this book takes a significant step, by integrating ecological and silvicultural knowledge within the context of the social and economic issues that can determine the success or failure of tropical forest landscape restoration.

Describing new approaches to the reforestation of degraded lands in the Asia-Pacific tropics, the book reviews current approaches to reforestation throughout the region, paying particular attention to those which incorporate native species – including in multi-species plantations. It presents case studies from across the Asia-Pacific region and discusses how the silvicultural methods needed to manage these ‘new’ plantations will differ from conventional methods. It also explores how reforestation might be made more attractive to smallholders and how trade-offs between production



and conservation are most easily made at a landscape scale. The book concludes with a discussion of how future forest restoration may be affected by some current ecological and socio-economic trends now underway.

The book represents a valuable resource for reforestation managers and policy makers wishing to promote these new silvicultural approaches, as well as for conservationists, development experts and researchers with an interest in forest restoration. Combining a theoretical-research perspective with practical aspects of restoration, the book will be equally valuable to practitioners and academics, while the lessons drawn from these discussions will have relevance elsewhere throughout the tropics.

Forest Landscape Restoration Integrating Natural and Social Sciences

John Stanturf, David Lamb, Palle Madsen (Eds.), *World Forests, Vol. 15, 2012, Springer*, 330 p. Hard Cover: USD 176.29, ISBN-13: 978-9400753259 ISBN-10: 940075325X

Restoration ecology, as a scientific discipline, developed from practitioners' efforts to restore degraded land, with interest also coming from applied ecologists attracted by the potential for restoration projects to apply and/or test developing theories on ecosystem development. Since then, forest landscape restoration (FLR) has emerged as a practical approach to forest restoration particularly in developing countries, where an approach which is both large-scale and focuses on meeting human needs is required.

Yet despite increased investigation into both the biological and social aspects of FLR, there has so far been little success in systematically integrating these two complementary strands. Bringing experts in landscape studies, natural resource management and forest restoration, together with those experienced in conflict management, environmental economics and urban studies, this book bridges that gap to define the nature and potential of FLR as a truly multidisciplinary approach to a global environmental problem.

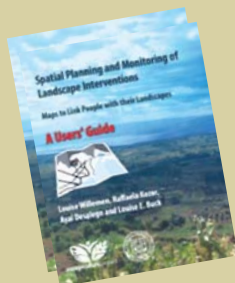
The book will provide a valuable reference to graduate students and researchers interested in ecological restoration, forest ecology and management, as well as to professionals in environmental restoration, natural resource management, conservation, and environmental policy.

Spatial Planning and Monitoring of Landscape Interventions: Maps to Link People with their Landscapes: A Users' Guide

Louise Willemen, Raffaella Kozar, Ayal Desalegn, Louise E. Buck, 2014, *Washington, DC: Eco Agriculture Partners, Cornell University*

The Spatial Planning and Monitoring Guide: Maps to Link People with their Landscapes, developed by EcoAgriculture Partners and Cornell University for TerrAfrica, is designed to stimulate the use of maps in cross-sectoral collaborations to locate, design and monitor interventions in rural landscapes. The guide presents eight steps to guide key stakeholders through a spatially explicit landscape planning process aimed at integrating goals for agricultural production, biodiversity conservation and livelihood security. The Spatial Planning and Monitoring Guide uses best available maps to facilitate this process by allowing stakeholders to specifically indicate areas where improved landscape benefits should be planned and monitored. Here the use of a wide range of maps (such as maps on water flows, suitable agricultural soils, vegetation cover and population) supports well-informed planning for placed-based interventions, of which the desired impact often depends on the spatial characteristics of a larger area.

This guide is designed to stimulate the use of maps in cross-sectoral collaborations to locate, design and monitor interventions in rural landscapes. The guide presents eight steps to guide key stakeholders through a spatially explicit landscape planning process aimed at integrating goals for agricultural production, biodiversity conservation and livelihood security.



29. References 32. Transforming rural livelihoods and landscapes: sustainable improvements to incomes, food security and the environment. Summary A growing world population, combined with economic and social development, will continue to lead to increased demand for the outputs of agriculture – food, fodder, fuel and fibre. Simply increasing the amount of land dedicated to agriculture to meet this demand is neither desirable nor feasible. Instead, it has become essential to grow more with the same, or fewer, inputs of water, energy and chemicals; lose less of what is produced; maintain the livelihoods of inhabitants of arid and semi-arid lands, either through the enhancement of existing livelihoods or the promotion of alternative ones, and their potential constraints... Alternative livelihoods are discussed under regenerative and extractive themes with respect to environmental stability. Regenerative (i.e., non-extractive) livelihoods include activities like apiculture, poultry keeping, pisciculture, silkworm production, drought tolerant cash cropping, horticulture, community wildlife tourism, processing of livestock and crop products, agro-forestry for tree products, and micro-enterprises in the informal sector. Suggestions to improve these livelihoods in a sustainable manner are offered. Keywords. GEOGRAPHY, ENVIRONMENT, SUSTAINABILITY Geography, environment, sustainability. User. ISSN 2071-9388 (Print) ISSN 2542-1565 (Online). Descriptive statistics and the livelihood strategy diversification index (LSDI) were used to analyze the data. Results indicated that farmers employ around 13 indicators to identify soil erosion on their farmlands. Integrated natural resource management in practice: enabling communities to improve mountain livelihoods and landscapes. Proceedings of a conference held on October 12-15, 2004 at ICRAF headquarters, Nairobi, Kenya. Non-farm income diversification and household livelihood strategies in rural Africa: concepts, dynamics, and policy implications. Food Policy 26: 315-331.