unasylva

Food and Agriculture Organization of the United Nations

An international journal of forestry and forest industries

Vol. 64 241

FORESTS FOR FOOD SECURITY AND NUTRITION

Committee on World Food Security

Food security exists when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.



The Committee on World Food Security (CFS) was set up in 1974 as an intergovernmental body to serve as a forum for the review and follow-up of food-security policies. Its vision is to be the most inclusive international and intergovernmental platform for all stakeholders to work together in a coordinated way to ensure food security and nutrition for all.

The CFS holds annual sessions in which members, participants and observers discuss and make recommendations on important issues related to food security and nutrition at the global, regional and national levels. It also convenes multistakeholder consultations to arrive at guidelines and agendas for action on, for example, land tenure, responsible agricultural investment and engagement in protracted crisis contexts. The CFS is setting up mechanisms to enable stakeholders to monitor the implementation of its recommendations and guidelines.

The CFS reports annually to the United Nations Economic and Social Council. For more information visit **www.fao.org/cfs/en**



Food and Agriculture An international journal



Food and Agriculture Organization of the United Nations An international journ of forestry and forest industries Vol. 64 2013/2

Editor: A. Sarre

Editorial Advisory Board: P. Csoka, L. Flejzor, T. Hofer, F. Kafeero, W. Kollert, E. Rametsteiner, S. Rose, A. Sarre, J. Tissari, P. van Lierop, P. Vantomme, M.L. Wilkie Emeritus Advisers: J. Ball, I.J. Bourke, C. Palmberg-Lerche, L. Russo Regional Advisers: F. Bojang, P. Durst, M. Saket

Unasylva is published in English, French and Spanish. Free subscriptions can be obtained by sending an e-mail to unasylva@fao.org.

Subscription requests from institutions (e.g. libraries, companies, organizations, universities) rather than individuals are preferred to make the journal accessible to more readers.

All issues of *Unasylva* are available online free of charge at www.fao.org/forestry/unasylva. Comments and queries are welcome:

unasylva@fao.org.

Reproduction and dissemination of material in this publication for educational or other non-commercial purposes are authorized without prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this publication for resale or other commercial purposes is prohibited without written permission of the Chief, Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extension, FAO.

Articles express the views of their authors, not necessarily those of FAO.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

To order the FAO publications reviewed in Unasylva, contact the Sales and Marketing Group, Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy. Tel.: (+39) 06 57051; Fax: (+39) 06 5705 3360;

Telex: 625852/625853/610181 FAO I; E-mail: publications-sales@fao.org

This image by Alana Holmberg won the UN-REDD Programme photo contest, "REDD+ for food security"

Contents

Editorial	2
<i>C. Padoch and T. Sunderland</i> Managing landscapes for greater food security and	
improved livelihoods	3
J.C. Mohamed-Katerere and M. Smith The role of ecosystems in food security	14
R. Jamnadass, F. Place, E. Torquebiau, E. Malézieux, M. Iiyama, G.W. Sileshi, K. Kehlenbeck, E. Masters, S. McMullin and I.K. Dawson Agroforestry for food and nutritional security	23
A. Bertrand, G.A. Agbahungba and S. Fandohan Urbanization and forest foods in Benin	30
L. Stloukal, C. Holding, S. Kaaria, F. Guarascio and N. Gunewardena Forests, food security and gender	37
P. Dewees Forests, trees and resilient households	46
B. Vinceti, A. Ickowitz, B. Powell, K. Kehlenbeck, C. Termote, B. Cogill and D. Hunter The contributions of forest foods to sustainable diets	54
Summary of the International Conference on Forests for Food Security and Nutrition Forests and trees outside forests are essential for global food security and nutrition	65
FAO Forestry	72
World of Forestry	75
Books	73

Cover: Two farmers stand in their agroforestry plot in Kenya, the woman holding a papaya fruit. Forests and trees outside forests are increasingly recognized as essential for global food security.

EDITORIAL

Forests for food security and nutrition

Response to the security and nutrition has always been at the heart of FAO's work. The Organization's constitution asserts that FAO's member nations are determined, among other things, to ensure "humanity's freedom from hunger". FAO's Director-General, José Graziano da Silva, wrote recently that "ending extreme poverty and hunger is not merely desirable; it is the indispensable foundation of a new global society that is both open and fair".

Food security requires healthy, diverse ecosystems, and forests and trees outside forests therefore have an important role to play. To explore this role, FAO and its partners brought together, in May 2013, more than 400 experts from governments, civilsociety organizations, indigenous and other local communities, donors and international organizations from over 100 countries for the first global conference to specifically address the role of forests and trees outside forests in food security and nutrition – the International Conference on Forests for Food Security and Nutrition. This edition of *Unasylva* presents articles arising from that conference.

Several articles stress the need to approach food security intersectorally and at the landscape scale. T. Padoch and C. Sunderland, for example, say that more research is needed into ways of better integrating forests, trees and agricultural production in landscapes. While diverse, integrated landscapes ("land-sharing") are the norm in smallholder farming systems, they are being replaced by methods that segregate (and simplify) landscapes into "conservation" and "production", called "land-sparing". The authors argue that replacing land-sharing with land-sparing risks the loss of valuable traditional knowledge and could also reduce the resilience of smallholders to change.

According to J. Mohamed-Katerere and M. Smith, ecosystems, including forests, provide many goods and services that underpin food production. The authors advocate an "ecosystem-aware" approach to food-security policy-making that aims not only to alleviate hunger in the short term but also to ensure the capacity of ecosystems to support food production in the face of shocks and stresses. Diversity – of ecosystems, biota and livelihoods – is one of the keys here.

R. Jamnadass and his co-authors explore the role of agroforestry – the integration of trees with annual crop cultivation, livestock production and other farm activities – in food security and nutrition. More than 1.2 billion people practise agroforestry worldwide, but its role in supporting the food and nutritional security of the rural poor is still poorly documented. More research is needed to better target interventions, and more attention is needed on the domestication of forest food species to harness their huge potential.

An article by A. Bertrand and co-authors looks at the increasing demand for forest foods, especially wild meat, in urban centres in Benin. This increasing demand, say the authors, represents an opportunity for entrepreneurs and rural producers, but there is an urgent need for a new legal and administrative framework that promotes sustainable forest management and the domestication of forest animals for meat production.

L. Stloukal and co-authors examine the role of gender in the food security (or insecurity) of rural people. The disadvantages faced by women in developing countries in their access to forests have huge implications for the food security. The authors argue that empowering women in the forest sector can create significant development opportunities and improve food security and nutrition among rural people.

In his article, P. Dewees looks at how forests and trees can help households withstand tough times – that is, to be resilient in the face of economic and environmental hardship. He sets out some policy responses that would encourage the integration of forests and trees in agricultural systems to increase this resilience, and he advocates interventions at a landscape scale.

B. Vinceti and her co-authors discuss the concept of "sustainable diets", which are diets that conserve biodiversity, are culturally acceptable, provide adequate nutrition and optimize the use of natural and human resources. The authors find that forests and trees make substantial contributions to the nutritional quality of the diets of many rural people, and they, too, advocate the management of heterogeneous landscapes to ensure that food-production systems are nutrition-sensitive and minimize their ecological footprint.

The final article in this edition comprises the summary statement issued by organizers at the end of the International Conference on Forests for Food Security and Nutrition; it includes a number of recommendations arising from the papers presented at the conference and the ensuing discussions.

There is no doubt that forests and trees are essential components of most sustainable food-production systems, as both producers of foods and providers of ecosystem services. Achieving an optimal mix of forests and trees in landscapes, however, requires more research, development and extension, and much more interaction between the various sectors – such as forestry, agriculture, water, energy and land-use planning. By combining forces, the sectors can make best use of existing knowledge and experience, including traditional knowledge, with the ultimate goal of building an open and fair global society and thereby ensuring food security and adequate nutrition for all.

READER SURVEY

We want your views on *Unasylva*. Please help us increase the journal's impact on forest policy and practice by participating in a short Web-based survey. www.fao.org/forestry/unasylva