Improvement of Rural Livelihoods: the role of Agroforestry

Speech by

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Abstract

FAO has accorded food security and sustainable livelihood a high priority since the Rio Summit and more recently in response to the declaration of the World Summit on Sustainable Development. On its part, the FAO Forestry Department in collaboration with partners, has launched a number of initiatives to assist developing countries, particularly those with low forest cover, designing and strengthening their national forestry policies to better address issues related to sustainable development and livelihoods.

Agroforestry, as a science and practice, has the potential to contribute to the improvement of rural livelihood, due to the capacity of its various forms to offer multiple alternatives and opportunities to smallholders to enhance farm production and income, while protecting the agricultural environment.

The growing food insecurity and deteriorating livelihood situations call for concerted and consorted actions at national and international levels to take advantage of the high potential of agroforestry, among other systems, for promoting best land use practices. However, adoption of agroforestry technologies to effectively improve livelihoods of vulnerable smallholders will need national capabilities to develop and implement appropriate policies and to set up efficient institutions. In this connection, participation of farmers should be central in the process. Traditional practices and indigenous knowledge will play as an important role as extension and training.
**Introduction**

One of the most serious challenges faced by policy and decision-makers in many developing countries is “how to improve the well-being of the poor in rural areas while maintaining a viable environment”.

The remarkable progress in global agricultural production in the second half of the last century has helped to break cycles of crop failures, food deficits and famines. However, as we move into the 21st century, the decline of food production in developing countries has never been so worrying. According to FAO, there are nearly 840 million people in the world who suffer from under-nourishment; most of them live in Asia and Africa. Despite the commitment made by the Heads of State at the 1996 World Food Summit, to halve the number of undernourished people by no later than 2015, we are still far from this target.

For decades, food insecurity and poverty have been hampering livelihoods of the rural poor and posing the major challenges to sustainable development of many developing countries. Indeed, over the last four decades, agricultural production has come under increasing threat, due to the worsening climatic and environmental conditions, land and soil degradation, enhanced by a huge population pressure on limited resources. Because of that, agricultural production in the developing countries has seldom matched the needs of the people.

Indeed, many developing countries, particularly those in the drylands (arid and semi-arid with low forest cover) have not advanced sufficiently in improving food production, because of the recurrence of drought spells and the vulnerability of their fragile ecosystems to degradation. Moreover, the profound changes in farming systems, markets and investment mechanisms are exposing smallholders to increased vulnerability and often forcing them to change their traditional farming systems.

**The relationship between agroforestry, food production and poverty**

There are well established synergies between people and forest resources; people depend on forests and sustainable development of the forest relies on people. In most of the developing countries, 70 to 80 percent of the population are rural dwellers relying on forest lands and subsistence agriculture for their livelihoods. For instance, in Asia, about 450 million people rely heavily on forest and trees resources for their livelihoods and in Africa more than 60 percent of the population depends on forests for their food and health (Brandford, 2002).

Most of the rural poor are smallholders practicing low inputs agricultural production and living in remote mountain areas or arid and semi-arid savannahs or dry lands. Such regions are characterized by fragile ecosystems, which are in many instances suffering from environmental degradation. In many traditional farming systems trees have always been a key element of sustainability and farmers often conserve high percentage of trees on their lands to control soil erosion, and usually adopt fallow systems to improve the soil fertility. Trees also provide farmers with supplementary socio-economic benefits (fruit for food, firewood, medicines, forages, etc.). Over the centuries, farmers in many developing countries in the humid tropics have maintained a productive agriculture through shifting cultivation combined with long-term fallow systems. However, in the last two decades, the need to grow more food and to improve livelihoods has forced farmers to strive for maximum food production from fragile ecosystems using limited inputs, often resulting in the break down of the traditional farming system, and resource degradation. In this context, large-scale deforestation has taken
place leading to decline in soil fertility and productivity, especially in the dry areas with low forest cover and in the humid tropics.

**Improving soil quality for more food production**

In the coming years, improved livelihoods in developing countries will depend in the ability of the stakeholders to arrest land degradation and increase food production. In addition, improvements in agricultural productivity will depend on diversification and intensification skills of the farmers supported by accessibility to inputs and new technologies.

In most of the developing countries, the farming system is generally rainfed often associated with forests or integrates trees. About 75 percent of deforested areas are used for agriculture, often on degraded soils and for cultivation of slopes (FAO, 1997). Much effort has been made to reverse the degradation of land resources and arrest the consequent deteriorating food supplies in many countries, particularly with fragile ecosystems. However, only a few countries could really develop cost-effective and integrated agricultural technologies that could achieve sustainable land use and appropriate natural resources management.

Restoring degraded forests will help fighting food insecurity, removing pressure on natural forests, and conserving the soil and environment.

The concept of **Trees outside Forests** (ToF) emerged in the early 90s (FAO, 2001) as a holistic approach which encompasses integrated tree-based farming system in farmlands and pasturelands to promote sustainable agricultural production and forest resource conservation. Indeed, in small-scale agricultural production systems, TOF management seems to hold a high promise as a bridge between food production and environmental protection, due to its capacity to restore the ecosystems and improve soil fertility. Farmers welcome tree cropping because they are economically advantageous since they provide substantial cash incomes which could be recycled into food in case of crop failure.

Food production based on low inputs is common in many cleared forest areas. Since the early 70s, however, the practice of slash and burn has become questionable in many regions. Serious breakdowns in the system have become apparent, showing increased degradation of forest margins, including loss of soil fertility and of biological diversity. To add to the problems, many farmers respond to the deterioration by reducing fallow periods to less than five years and expanding farmed lands far into the forest and beyond logged-over forest areas. If addressed in the context of poverty alleviation programmes focused on improved livelihoods and aiming to protect forests from damage, it should be possible to move away from shifting cultivation to practices that are sustainable in the longer term. In this regard, supportive infrastructures that provide for the transfer of environmentally sound technologies, for investment incentives, and for efficient market mechanisms are also required.

Improved methodologies and better understanding of the relationship between trees and crops are resulting in more stable subsistence farming systems that are slowly replacing slash and burn agriculture. In addition, land use policies are increasingly taking shifting cultivation into account where it is practiced, rather than systemically ignoring it as in the past.
Removing barriers to enhance the contribution of forest and trees to sustainable livelihoods

Given the limited number of productive activities available to rural poor and the limited work skills of their members, rural poor families function in a precarious economic equilibrium, which may be upset by changes in economic, political, social, or climatic conditions in their rural environment.

Land ownership has a parallel in tree ownership (trees may belong to an individual or to the community); depending on the nature of the tree (wild or planted) and how it is used (commercially or on a subsistence basis). Tree ownership is broken down into the right to own and to inherit, the right to plant, rights of usage and the right to dispose of the tree through sale or lease.

At its Twenty Eighth Session (2002), the Committee on World Food Security (CFS) requested FAO to develop strategies to address key elements of policy advice, capacity building and technical assistance, and actions that need to be taken at national and international levels for ensuring access to safe and nutritious food. FAO has assisted member countries to review and adapt their policy frameworks to the new context of participatory socio-economic sustainable development. A range of participatory tools are available or under development in FAO’s Forestry Department to assist farmers in identifying market niches for agroforestry, non-wood forest products and farm produced timber. Rural communities have been directly involved in the development planning processes and decision-making. The introduction of participatory approaches could allow farmers to negotiate trade-offs for individual and common interests.

Conclusions
Livelihoods improvement and poverty reduction call for collaboration and partnership. This First World Agroforestry Congress should be seen as an initiative aiming to foster dialogue and collaboration at national and international levels. Sustainable forest conservation has been recognized in the early 90s by IPF and IFF as one of the major challenges in developing countries, particularly the dry tropics.

Since its creation in 1945, FAO has focused on sustainable food production and improved livelihoods of the rural poor. FAO has also been providing technical support to its Member Countries in collaboration with other UN agencies, international development institutions and NGOs. To be consistent with the Agenda 21 and the Millennium Development Goals, FAO adopted a strategic framework aiming to help achieve food security in the Member Countries, particularly in rural areas and to reduce poverty through improvement of agricultural production and the livelihoods.

The needs of the poor must be directly addressed with their participation to ensure sustainability on which steady growth depends. Improving livelihoods will need that new approaches are adopted and financial commitment secured. FAO is committed to support Member Countries reducing poverty by 2015 in a safe and socio-economically equitable environment.