

# Agroforestry Knowledge to Action

Delivering poverty reduction and environmental conservation in Tanzania



Photo By Bob Wagner

Mzee Manda Mabula of Wikelekelo village, Shinyanga, keeps his livestock healthy by grazing improved pastures under woodlots of leguminous trees

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## Setting the scene

Agroforestry integrates trees with crops and/or animal production. It has been in practice all over the world for millennia. In Tanzania there are many examples of traditional agroforestry systems. For example the Chagga home-gardens (among the most documented), the related Mara region home-gardens known as “obohochere” and the traditional Wasukuma silvopastoral system called “ngitili” and many others. The uniqueness of traditional agroforestry systems is the maintenance of multi-layered systems with annual and perennial plants, which imitate natural ecosystems.

The World Agroforestry Center (ICRAF) working with numerous partners has developed agroforestry innovations that address global challenges of poverty, land degradation, climate change and loss of biodiversity. This

article looks into role of agroforestry and its contribution in sustainable development in Tanzania and particularly in the MKUKUTA strategy.

## Agroforestry R&D in Tanzania

Tanzania has of over two decades of Agroforestry research and development experience, Impact on livelihoods and environment has been recognized at both national and international levels. Shinyanga and Tabora regions were the first beneficiaries of AF R&D in the country, beginning in 1986, when there was an urgent national call to respond to massive environmental degradation in these two regions. ICRAF's work in Tanzania had three major objectives;

- Develop and refine a diverse range of agroforestry options and accelerate their adoption,
- Build a network of partners and strengthen their capacity in agroforestry development and
- Through studies, contribute to adding value to and improving

Agroforestry as a distinct science dates back to the mid 1970's. It started with this working definition; “A sustainable land management system which increases the overall yield of the land, by combining crop production (including tree crops) and forest plants and/or animals simultaneously or sequentially, on the same unit of land and applies management practices that are compatible with cultural practices of the local population.”

the marketing of agroforestry products and services.

The SADC/ICRAF program comes to an end in March 2007 and has achieved these objectives. Among the technologies developed, many of which have spread to other regions in the country, are;

- rotational woodlots,
- improved fallow systems,
- domestication, processing and marketing of indigenous fruits and medicinal trees,
- fodder banks,
- improved indigenous land use systems.

## Agroforestry milestones

In 2002 the National Agricultural Research Institute in Tumbi – Tabora, ICRAF's main collaborator (for 20 years?), received a national award in recognition of the impact of the rotational woodlots in conserving natural resources. With a focus on tobacco farmers, rotational woodlots provide



Mama Agnes Saidi of Mwamakuranga village in Shinyanga region plant different fast growing and fodder tree species for fuel wood security, livestock feed security and income from selling seedlings



Exchange visits: Teachers for Farmers of the Future from Kenya visiting on one of the farms demonstrating Gliricidia coppicing fallow



Women in Tabora region add value to indigenous miombo woodland fruits making jams and jellies for market income.

fuel for curing tobacco, thus reducing pressure on the Miombo woodlands.

In 2004 the HASHI-ICRAF project, renowned for reviving and improving the traditional land use system Ngitili, received a United Nations Development Programme (UNDP) Equator Award in recognition of its contribution to restoration of degraded land Insert/ref. to photo from Anthony's ngitili).

In 2006 the former ICRAF-Tanzania country representative, Mr. Remen Swai was awarded a national certificate in recognition of the impact of his work for ICRAF on domesticating, processing and marketing of indigenous fruits.

At a national level, launching of the National Agroforestry Steering Committee (NASCO) in 1993 is one of the major outcomes of ICRAF/Tanzania collaboration. NASCO composition is cross-sectoral drawing on the sector wide agroforestry stakeholder group. In 2005 the Ministry of Agriculture, Food Security and Cooperatives and the Ministry of Natural Resources and Tourism coordinated production of the first national agroforestry strategy.

The vision in the strategy states; "By 2025 at least 4 million rural farming households will adopt and benefit from agroforestry interventions." NASCO has been in the forefront in agroforestry promotion, organizing two national agroforestry conferences, where different stakeholder groups came together to present research findings and share experiences.

In the natural resources sector, the Tanzania Forestry Research Institute is the main implementer of agroforestry research, while dissemination of agroforestry technologies is coordinated under the Forestry and Beekeeping Division in the Ministry of Natural Resources and Tourism.

### Agroforestry and MKUKUTA

MKUKUTA is the Tanzanian National Strategy for Growth and Reduction of Poverty. Launched in 2006, this comprehensive national organizing framework focuses on poverty reduction and sustainable development in Tanzania. Agroforestry is well suited to contribute to the desired outcomes of MKUKUTA. The prime objective of agroforestry research and development for years has been to increase food production, provide raw materials and raise income and consequently help to achieve the Millennium Development Goals.

In Tanzania the bulk of the country's 34 million people practice subsistence agriculture and pastoralism. This is why the government, civil society, academia and donors have supported agroforestry initiatives mainly in rural areas. A notable case on livelihood and land transformation via agroforestry is that of champion farmers, Anthony Katakwa, and his wife Agnes turned around their fortunes in 1997, when they joined the HASHI-ICRAF Project. They have learnt valuable agroforestry skills and transformed their land and lives.

### The future of AF research and development

The evolution of agroforestry in the last three decades has seen a major shift from emphasis on land productivity at farm or plot level to systems interactions at landscape or watershed levels. It is becoming more and more evident that sustainable development depends on maintaining health of the natural resource base to support ecosystem functions such as water cycling, carbon sequestration, erosion control and biodiversity. Agroforestry systems provide both local and global ecosystem services. They also contribute to the UN conventions on desertification, biodiversity and climate change. This is an area which has not been adequately captured in Tanzania, but is indeed of great importance given the increase in watershed related problems. Agroforestry in a broader perspective is well suited to address some of the land use conflicts as well as up-stream, down-stream problems in a number of watersheds/landscapes in the country.

Tanzania's rural population can bet on agroforestry science and practice as a pathway out of poverty. The million dollar question is how best to scale up the proven technologies so as to achieve the MKUKUTA growth rate of 6 – 8% GDP per annum over the next decade. No single discipline or institution can identify solutions to the complex challenges of agroecosystem and natural resource management.