VITRI/ETFRN/IUFRO-SPDC WORKSHOP

TREES, AGROFORESTRY AND CLIMATE CHANGE IN DRYLAND AFRICA (TACCDA)
Hyytiälä, Finland, 30 June - 4 July 2003

Websites: **http://honeybee.helsinki.fi/tropic or http://www.etfrn.org/etfrn**

SYNTHESIS OF WORKSHOP RECOMMENDATIONS

Background. Much information is already available on tropical dryland management and rehabilitation and on related research. The TACCDA workshop was organised with EU (EC DG-research) support and aimed at compilation and analysis of existing information so as to encourage further measures to be taken at the local, national or international level. The workshop emphasis was on biophysical and socio-economic analysis of land degradation and impacts of climate change. A pre-workshop e-mail discussion was facilitated by ETFRN in April-May 2003, and together with background information, its results are available from the ETFRN website. The workshop was attended by about 50 participants, representing 17 mainly African countries and several international bodies, such as UNCCD, ICRAF, CIFOR and IPGRI. ***The general vision statement for the workshop was "Agree on clear national policies and strategies for addressing ecological degradation in savanna and dryland forests taking account of management and climate change".***

Workshop organisation.. The responsible Finnish organiser, ***Viikki Tropical Resources Institute (VITRI)*** at the University of Helsinki, has been involved in research and training related to tropical forests and dryland rehabilitation for more than 20 years. Another organiser was the ***European Tropical Forest Research Network (ETFRN)***, which connects tropical forest researchers and their institutions in the EU, promotes North-South information exchange for policy and management improvement, and arranges thematic workshops. The ***Special Programme for Developing Countries of the International Union of Forest Research Organisations (IUFRO-SPDC)*** supports researchers in the South and as a workshop co-organiser, highlighted related problems in the humid tropical regions.

The workshop split into four working groups covering the following aspects:

1. Drylands and global change.
2. Climate change and dryland forests.
3. Facilitating land-use change on drylands.
4. International policy implications on dryland use.

The recommendations of the working groups are summarised below.

Drylands and global change

POLICY. Further clarification of community needs and involvement of all stakeholders is necessary for successful policy revision. There are contradictions between policies related to drylands and peoples' actual needs or customary land-use. Dryland communities, and especially disadvantaged groups, such as women, do not have sufficient access to education.

Successful examples should be fully considered when initiating new national and local initiatives on dryland management. Appropriate dryland policies must be supported by efficient tools for management improvements and past and present examples of participatory approaches be taken into account.

Research is needed to identify policy enforcement instruments so as to encourage the formation and operation of grassroots resource management associations. More social responsibility of actors involved in dryland resource use or management is needed. This can be achieved by binding resource users to resource management and developing ways to re-invest in resource base maintenance and development.

The role of trees as suitable crops using low-quality water and in reclaiming waterlogged or saline land and thus also mitigating the energy crisis should be recognised. Energy saving contributes to the sustainability of dryland resource management and necessitates the introduction of new and appropriate technology in woodfuel use and development of alternative energy sources where feasible. Policies are also needed to support new and innovative water harvesting and distribution techniques especially for use by individual farmers, and to support the reuse of discharge water from urban areas and irrigation schemes.

The issue of alien or invasive species on drylands should be re-examined, so as to define clearly the environmental, economic and social problems and advantages associated with such species and to develop appropriate management regimes for these species as alternatives to often ineffective attempts at total eradication.

RESEARCH. Dryland management requires support from interdisciplinary research, and efforts should be taken to combine production-orientated research with studies on social and economic research, including the role of women as dryland resource managers. Research on production, processing, value adding and marketing of dryland tree and woodland products is essential considering their importance for livelihoods in dryland Africa. Well-established traditional production technologies should receive due attention and be applied to new production locations and the global situation. New priority tree species for domestication and further improvement have also been identified for different subregions, and national and international support should be mobilised for continuing work. This also warrants the generation of precise market information and sensitising consumers and decision makers in industrialised countries on the potential of dryland products for development and poverty reduction, in particular in dryland Africa.

Reforms in land use and tenure arrangements should be supported by research and exchange of information between countries and regions. Sub-Saharan Africa can benefit from dryland management experience (e.g. on land rehabilitation and efficient use of scarce water resources) gained in other regions and make the results so far obtained available for them. Well-planned and implemented case studies that combine ecological, social and economic factors are needed in all regions and results from them should obtain the widest possible publicity and consideration elsewhere.

Long-term monitoring of natural and man-made production systems and traditionally protected areas needs more systematic effort and resource allocation. Permanent sample plots should be established for determining the yield of various products from indigenous and exotic tree species under different management regimes. National and international databases and networks should provide easy access to research results and baseline information. Traditionally-protected forests in dryland Africa should also be documented and studied, so as to understand fully their cultural and social roles and their function in biodiversity conservation and land rehabilitation through spontaneous or assisted natural regeneration.

Research and already available results on water relations in dryland farming systems, including intensively managed tree plantations, needs attention and supportive research. Some of the most efficient improvement actions in dryland management have been obtained using improvement of water supplies, elimination of excessive water use and diversifying the agricultural and trees used in agroforestry production systems for more economic water use. Irrigation technologies, especially those based on seasonally available water, must be developed also for the benefit of smallholder farmers. Based on scientific research, full advantage should be taken of the possibilities for intensive plantation forest production where sufficient irrigation water is available. Research should also give guidance to the optimal incorporation of trees in large-scale irrigation schemes.

DEVELOPMENT. Land tenure is a central issue affecting the use of forests and trees on drylands and should be addressed simultaneously at national and local levels. At the national level, national forest programmes or other relevant programmes or action plans should contribute to finding resource use and management solutions for the particular situation. This is mainly the responsibility of the government authorities responsible for dryland tree resources. At the local level, management planning that includes all stakeholders should be initiated. In cases of conflicting views on resource use, actions for conflict resolution must be promoted. Adherence to single universal approaches should be avoided, since available experience shows that different solutions to management regimes and other key issues can be simultaneously applied.

Climate change and dryland forests

Poverty and environmental degradation are major problems in dryland Africa, and forests and trees contribute significantly to rural livelihoods. These issues must be given priority while undertaking studies and actions related to climate change. There is a need for genuine integration of stakeholders at all levels, and it is recommended that all groups be actively represented in research project planning at the national level. International donors should take an active role in promoting such partnerships and avoid looking at the climate change issue from the Northern viewpoint only. National and regional organisations should define specific areas for intensive climate change study,and international donors should actively support collaborative projects and dissemination of results through regional networks.

More accurate global data on climate-forcing gas emissions is needed. International policy should be designed to enable research funding at the regional level which does not exclude any country. Vegetation systems in dryland Africa are affected by the consequences of anthropogenic emissions of climate forcing gases. Existing systems should be characterised in terms of an Integrated Ecological Management Approach (IEMA).

International support is necessary for African nations to participate in climate change policy processes and related research and training. These nations are disadvantaged by insufficient human resource capacity and inadequate national data (net climate forcing gas emissions and all the associated data). Relevant research programmes should be initiated with national and international research funding (mainly by international donors) in a range of land management and land use systems in different vegetation types. There should also be sufficient training of researchers.

Facilitating land use change on drylands

Agroforestry is a traditional form of dryland management that needs to be properly assessed in its various forms and fully utilised when new types of sustainable management are planned. Sufficient national resources should be mobilised and supported for adoption of the best available international knowledge on agroforestry systems, especially those that benefit the rural poor by providing better food security and income using locally available resources and skills. Support should be given to crop diversification on drylands and domestication of lesser-known crop species, especially traditionally used multipurpose trees and shrubs with potential value for income generation. Agroforestry development should also include support, in the form of national policies and incentives, to processing and marketing of new products and incorporation of the private sector, promotion of fair trade and suitable certification and other marketing mechanisms.

National policies on land tenure and land utilisation on drylands should give sufficient support to traditional sustainable forms of land use. When new or unfamiliar types of economic activities are introduced in dryland regions, such as high-input agricultural production or industrial development, the local communities should be given a sufficient

share of the benefits from them while preserving their traditional means of production. Agroforestry development should always seek to engage women in development and sustainable natural resource use and management.

Management and controlled utilisation of economically valuable species should be understood as an efficient means of biodiversity conservation. Biodiversity on drylands affected by land-use change needs attention because of its value for both conservation and utilisation. Drylands typically include gradients of different ecological zones some of which (for instance, riverine forests) are limited in area and under particular threat of destruction or degradation because of poorly planned development activities. When establishing national parks and other protected conservation areas on drylands, traditional land use that is not in conflict with conservation aims should be allowed and the local communities should be made partners and beneficiaries of conservation area management. Information on wildlife, for instance, such as clarification of migration patterns of large herbivores, can help in planning of protected areas and minimise potential conflicts between traditional land use and conservation are management.

Fire management on drylands requires supportive policies and practical guidelines that can be applied through community participation. This would benefit animal husbandry and preservation of ecosystem productivity and diversity.

In forest management planning, the available experience on participatory and community-based approaches should be fully utilised. Forest and tree resources in woodlands must be properly assessed so as to allow their efficient management. Based on already existing information, new, innovative dryland management regimes involving, for instance, local communities, the private sector, central or local government, and non-governmental organisations as partners, should be promoted. This approach should also form the basis for the rehabilitation of degraded drylands for improved and sustainable agricultural and forest production.

International policy implications on dryland use

There is a need to evaluate the impacts to date of international agreements on dryland management, and possible conflicts between the implementation of international agreements and national or local development should be identified. The starting point should be the verification of how international agreements translate into national strategies and their implementation. Information on resource allocation from national and international sources and specific impact assessment reports on particular initiatives or interventions will facilitate planning. Sources of information include national government reports and other documents prepared for conventions and agreements, various task force and expert group documents, as well as reports of various international organisations, initiatives and networks.

It is of utmost importance that Sub-Saharan African countries actively participate in COPs of the conventions, present their own experience and develop common stands on issues raised. International

cooperation should be used to ensure sufficient participation of countries which otherwise would not be able to participate in convention meetings.

The information and recommendations of national forest programmes, including forestry master plans, should be analysed and used as a basis for updated plans. Forest and tree resources in Sub-Saharan Africa contribute much to urban and rural livelihoods in the region. This is in sharp contrast to the current low levels of investment in the development and sustainable management of these resources. In most countries of the region, forest departments still await restructuring and investments in dryland resource management are lacking. Policy research is needed for guiding the reforms.

The development of appropriate policy and institutional reforms call for high-level political advocacy and sharing of experiences among countries. In Sub-Saharan Africa, a policy task force could operate through old high-level bodies, such as the African Ministerial Committee on Environment (AMCEN), or under facilitation by more recently established ones, such as the New Partnership for African Development (NEPAD). Actions on policy research and development should include mobilisation of a policy level advocacy task force to sensitise, promote and support policy analysis and revision and promote participation among the countries of Sub-Saharan Africa. Formulation and implementation of policy and institutional reforms for forest sectors should be based on the results of the global forest policy process and the UN millennium development goals. Existing economic organisations and research networks in Sub-Saharan Africa and elsewhere should also be fully utilised.

Research and feasibility studies for the acquisition of accurate information on forest resources should be implemented in dialogue with those using research results at national, regional and international levels. This would create synergies, harmonisation of efforts and new initiatives in dryland forest research and development. An integrated sustainable management approach at the landscape level offers a feasible approach for national planning of dryland management.