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Good Governance of Forests and Rangelands : Pillar of Food Security

REGIONAL INITIATIVES FOR LANDSCAPE RESTORATION: ANALYSIS AND LESSONS LEARNT FROM AFFORESTATION AND LANDSCAPE RESTORATION IN DRYLANDS

BACKGROUND

1. Desertification, resulting in part from climatic variations and human activities, affects over 1 billion people worldwide and has potentially devastating consequences in terms of social and economic costs, ranging from the reduction of agricultural productivity to migration and regional conflicts. All countries of the Near East Region are affected by desertification problems.
2. Climate change is also a huge, growing concern in the region as it is expected to exacerbate the effects of the ongoing human pressure and land use changes. According to the Intergovernmental Panel on Climate Change (IPCC), global warming will cause a decrease in rainfall and an increase in extreme weather conditions such as long periods of drought (with few exceptions) in the Near East Region. Severe water scarcity and increased desertification are likely, thus causing a vicious cycle of forest and land degradation and unsustainable livelihoods.
3. Many countries in the Near East region have recognized the crucial economic and ecological significance of forest resources and have launched massive afforestation and reforestation programmes mainly for protection purposes (i.e. combating desertification, fighting sand encroachment and watershed protection).. For example, planted forests in Sudan cover more

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than 1 million hectares According to the Global Forest Resources Assessment 2010, all forests in the United Arab Emirates and Libya consist of planted forests while in Algeria, Syria and Tajikistan they make up a considerable part of the total forest area. Although afforestation and reforestation projects are potentially important for supporting rural livelihoods and environmental restoration, planting campaigns usually do not take into account the fact that planting trees in arid regions is primarily water-limited, with drought being a major constraint on forest growth, in particular in areas where annual precipitation is less than 400 millimeters. There are indications that such tree planting projects might even be exacerbating environmental degradation, damaging soil ecosystems, reducing vegetation diversity and cover, and increasing the severity of water shortages. Thus, the consumption of water by newly established planted forests has become an increasingly ambiguous issue, in particular if the local environmental and site conditions are not considered properly. Inadequate consideration of site conditions could lead to over-planting of trees beyond the ecological carrying capacity of the site, or the use of unsuitable species.

4. A number of different initiatives and programmes at global and regional levels provide potential funding opportunities for afforestation projects and restoration programmes (i.e. the REDD+ and Climate Change adaptation funding mechanisms). The Great Green Wall for the Sahara and Sahel Initiative (GGWSSI), an initiative of the Community of Sahelian-Saharan States (CEN-SAD), endorsed by the African Union (AU) and involving over 20 countries (including countries of the Near East Region), is another political commitment. The GGWSSI concept has gradually shifted since 2005, from a project focusing on a massive tree planting initiative (extending from Dakar to Djibouti across a stretch 7 000 km long and 15 km wide, south of the Sahara) to a more holistic and integrated vision of sustainable land management and restoration of the environmental, social and economic functions of affected forest and rangelands ecosystems.

5. Much experience has been gained by the countries concerned in their earlier attempts to implement national greenbelts (i.e. green belts in Algeria, Mauritania, Morocco, Sudan and Tunisia, the Green Dam experience in Algeria) and other environment protection and natural resource development programmes. A number of programmes have been focusing on testing water harvesting techniques and restoration of degraded lands using local species that have high socioeconomic value and social and environmental benefits. For example, in Sudan, through the project “Acacia Operation”, FAO with its partners tested and piloted the introduction of a mechanised water harvesting technology (Vallerani system) based on the traditional half-moon practices, for the rehabilitation of arid and semi-arid lands. In Morocco, GIZ worked in close collaboration with the High Commissariat of Water and Forests and Combating Desertification with rural communities (including women) to support them in strengthening their livelihoods through the sustainable management of the Argania agro-sylvo-pastoral systems. Also, the management plan of the Dana Biosphere Reserve in Jordan includes cypress and juniper regeneration, organic farming and jewellery production by a cooperative led by women as well as knowledge from scientific studies on the monitoring of post-fire regeneration.

TOWARDS THE PREPARATION OF OPERATIONAL GUIDELINES BASED ON ANALYSIS AND LESSONS LEARNT FROM AFFORESTATION AND LANDSCAPE RESTORATION IN DRYLANDS

6. Based on the above, and as recommended by its members, FAO initiated a comprehensive analysis and evaluation of relevant afforestation and restoration programmes and projects in collaboration with its member countries and partner organizations active on the subject.

7. This analysis will aim at compiling lessons learnt and operational guidelines for the restoration of degraded forests and lands within the difficult environmental conditions and socio-economic needs and challenges in arid zones, for the benefits of local livelihoods. The analysis will focus on arid zone countries including: the Near East Region, the Mediterranean type

ecosystems (Mediterranean basin, South Africa, Australia), the Sahel, Central Asia, Latin America and Northern China. Specifically the guidelines will address the following key issues:

- the use of adapted indigenous species (trees, shrubs and grass);
- the use of introduced multipurpose tree species, e.g oil producing tree species;
- the promotion and use of natural regeneration of forests and rangelands through their sustainable management;
- the integration of landscape planning elements (e.g. watersheds, slopes, riverbanks) into the rehabilitation and restoration of degraded lands for productive and protective purposes;
- the efficiency of water use and application of efficient water harvesting systems in afforestation and reforestation;
- the selection and production of site-adapted planting material with high genetic diversity for the establishment and management of woodlands that are resilient to water scarcity and climate change;
- the integration of socio-economic and ecological dimensions, including the contributions of afforestation and restoration programmes to sustainable livelihoods;
- the management of nurseries for plant species suitable for forest restoration in drylands
- the contribution of planted arid-zone forests/woodlands to climate change adaptation and mitigation within the framework of carbon payment schemes (CDM, REDD+ ,etc.);
- the investments in arid-zone forestry as well as the monitoring and evaluation of their socio-economic and environmental impacts.

8. The principal tangible output of this initiative will be a publication illustrated by figures, maps, photos, boxes and case studies. In addition, the knowledge generated will result in the establishment of a comprehensive database on experts in arid zone forestry, best-practice restoration projects and technical features of plant species used in restoration projects. This knowledge platform will promote networking among forestry departments, research institutions, rural development and environment departments and the private forestry sector.

9. As part of this work, FAO will organize with the Government of Turkey during the spring of 2012, the first international expert consultation workshop in Turkey, involving experts and practitioners active in developing and implementing programmes/projects on afforestation and restoration on drylands in the Near East Region and other regions. Other international expert consultation workshops will be organized in the Sub-Saharan Africa region and other regions as deemed appropriate.

DISCUSSION AND DECISION ITEMS

10. Delegates may wish to provide their guidance and contributions to the following questions:

- How can this initiative contribute to the country priorities and ongoing/ future plans and programmes on restoration and afforestation?
- What are the main country and/or regional programmes/ projects that can be included in the analysis?
- What would be the follow-up actions for having the operational guidelines (when finalized) adopted as a working tool by all those engaged in forest and range development programmes and policy?
- What role should the Near East Forestry and Range Commission play in this process?