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Foreword

Worldwide, awareness of the social, economic and environmental functions of forests and trees is growing, and efforts to enhance their protective and productive roles are increasing. In West and Central Asia, governments, private sector, communities, farmers and civil society organizations are making substantial efforts to improve the management of forest and tree resources. However, most countries face enormous challenges in this regard and efforts are far from adequate to meet society's needs. Often priorities and strategies fail to take into account the larger changes, in particular developments outside the forest sector and, more importantly, the emerging global and regional issues. Traditionally, most forest planning has tried to focus on domestic issues. However, globalization is necessitating change, compelling countries to look at the broader regional and global picture to develop national policies and programmes.

It is in this context that FAO, in partnership with the countries of West and Central Asia, initiated the Forestry Outlook Study for West and Central Asia (FOWECA) to assess trends and future changes in the forestry situation. The study focuses particularly on probable development scenarios, their implications for societal welfare in terms of the availability of goods and services, and the priorities and strategies that may be pursued to improve the situation. This is one of a series of regional outlook studies that FAO has undertaken in response to requests from the FAO Committee on Forestry and the Regional Forestry Commissions. FOWECA has brought together information from a variety of sources, in particular from the countries of the region, and attempts to provide a comprehensive, regional perspective, which we hope will be of interest to planners, investors and decision-makers at the regional, subregional and national levels.

The process adopted in implementing the study has significantly strengthened the network of forestry professionals. For example, a series of regional and subregional meetings and workshops undertaken for FOWECA has helped to enhance strategic planning capacity and to provide a broader perspective on the development of forestry in the region. It is hoped that FOWECA will help to enhance the ability of countries to improve their national forest programmes. FAO, through the Near East Forestry Commission and in partnership with member countries and other stakeholders, will strive to follow up the recommendations from the study and thus, it is hoped, enhance the contribution to society of forests and trees in the region.

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Acronyms

AAAID	Arab Authority for Agricultural Investment and Development
AOAD	Arab Organization for Agricultural Development
CAREC	Regional Environmental Centre for Central Asia
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSO	civil society organization
EFI	European Forestry Institute
FAO	Food and Agriculture Organization of the United Nations
FOWECA	Forestry Outlook Study for West and Central Asia
FRA	Global Forest Resources Assessment
GCC	Gulf Cooperation Council
GDP	gross domestic product
GEF	Global Environment Facility
IGAD	Intergovernmental Authority on Development
IUCN	World Conservation Union
MDF	medium-density fibreboard
NEFC	Near East Forestry Commission
NEAP	National Environmental Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
NCWCD	National Commission for Wildlife Conservation and Development, Saudi Arabia
NGO	non-governmental organization
NWFP	non-wood forest product
SFF	State Forest Fund
UAE	United Arab Emirates
UN	United Nations
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNCCD	United Nations Convention to Combat Desertification
UNFCC	United Nations Framework Convention on Climate Change
WCMC	World Conservation Monitoring Centre
WRI	World Resources Institute
WWF	Worldwide Fund for Nature

Summary

The Forestry Outlook Study for West and Central Asia (FOWECA) is one of FAO's regional outlook studies undertaken to provide a long-term perspective of changes in the forest sector. It was initiated in 2004 in response to the recommendations of the fifteenth session of the Near East Forestry Commission (NEFC). Implemented in partnership with the countries, this study covers 23 countries in West Asia, Central Asia and the southern Caucasus. It provides an outlook of the forest sector up to the year 2020, outlines the probable developments and discusses what needs to be done to enhance the contribution of forests and trees to societal welfare.

CURRENT STATE OF FORESTS AND FORESTRY IN THE REGION

Forest cover and changes

Low forest cover and low productivity. West and Central Asia is the least forested region in the world: 17 of 23 countries have less than 10 percent of their land area as forests. With the exception of a few countries, the overall environmental conditions in the region are unfavourable to tree growth. The region accounts for about 1.1 percent of the global forest area and about 5.2 percent of other wooded land. Forests and woodlands are also unevenly distributed, with a few countries accounting for most of the forest area.

Planted forests mostly established to fulfil protective functions. Planted forest area in the region is also low, accounting for 11.6 percent of forest area (7.3 percent for Central Asia and the Caucasus and 13.9 percent for West Asia). A few countries account for most of the planted forests. Most have been established to fulfil protective functions.

Stability at a low base. Although the extent of forests and wooded land in the region remained rather unchanged between 1990 and 2005, some countries experienced a marginal increase. However, because forest inventories are either lacking or not undertaken regularly, the information that is available needs to be treated carefully.

Production of wood and non-wood forest products

Increasing dependence on imports. Considering the low growing stock and the region's poor growing conditions, the current production of industrial roundwood and other wood products is very limited; therefore, the region highly depends on imports. The per capita consumption of wood and wood products is substantially lower than that of global consumption, most of which is met through imports. In 2005, the region's imports amounted to about US$12.7 billion. Between 1995 and 2005, imports grew at a rate of 5.7 percent and the trend is likely to persist in the future.

Continued dependence on woodfuel in a number of countries. Although a number of countries are global suppliers of fossil fuels and although woodfuel demand has declined significantly during the past two decades, woodfuel continues to remain an important source of energy for rural people in some countries, as they do not have access to commercial energy supplies. Illegal removal of fuelwood (and the production of charcoal) is widespread and an important cause of degradation of forests and rangelands.

Non-wood forest products important, but information erratic. Non-wood forest products (NWFPs) are an important source of livelihood for the rural population in all the countries of the West and Central Asia region. They range from products used for local consumption to products that are traded internationally. However, insufficient information, especially because of the unorganized nature of collection, processing and trade, makes it difficult to assess their overall contribution.

Environmental issues at the forefront

Forests and woodlands in the West and Central Asia region provide a number of environmental services, in particular the protection of watersheds and arresting land degradation and desertification. In many countries, not only is there increasing emphasis on the recreational and amenity functions that forests and woodlands can provide, but substantial investments are also being made to establish and manage urban and peri-urban forests. Environmental services are increasingly becoming more important than the productive functions of forests for many of the countries, and the upward trend in the demand for environmental services is expected to persist, especially as society's willingness and ability to meet the costs of provision of such services improve.

Growing interest in biodiversity conservation. Around 2.9 percent of the region's land is in protected areas (IUCN categories I to IV), and some countries have made impressive efforts to protect unique ecosystems and save endangered species, including through capture breeding. However, in general, the overall state of management of protected areas requires substantial improvement. Loss of habitat through agricultural expansion and hunting is the main factor contributing to the declining wildlife in many countries of the region.

Land degradation and desertification remain the most critical problems. Both extreme climatic conditions as well as poor management of agriculture and rangelands make the region highly vulnerable to land degradation and desertification. Some Central Asian countries have particularly suffered from the degradation triggered by the diversion of water for large-scale irrigation. In addition, controlling toxic salt deposition has also proven to be costly.

Upland degradation exacerbating water deficit. The entire region suffers from high levels of water deficit, exacerbated by the severe degradation of catchments.

Water deficit implies a need for careful choice of techniques in afforestation and other environmental planting: irrigated peri-urban planting, Turkmenistan

The problem is particularly complex with some of the shared watersheds. The water deficit implies the need for careful choice of techniques used in afforestation projects and other environmental planting – especially in the selection of species and in management practices – to minimize water demand. Because of the region's limited area of forests and woodlands, addressing watershed degradation requires an integrated approach.

Ecotourism – an emerging potential. Forest-based ecotourism has become an important environmental service and is gaining prominence in many countries. Rising incomes have rapidly increased tourism. In view of institutional constraints, however, such growth has also led to degradation of woodlands in some countries in the region.

Urban forestry receiving considerable attention. As the pace of urbanization accelerates, many countries are paying increasing attention to urban forestry. Green zones, for example, have been developed in and around the important urban centres. There are situations, however, where existing forests, including planted forests, have been cleared for urban expansion and the construction of roads and other infrastructure.

WHAT IS THE FUTURE FOR FORESTS AND FORESTRY?

The future of forests and woodlands and the flow of goods and services will depend on the collective impact of various driving forces and how key players, especially governments, respond to emerging opportunities and challenges.

Drivers of change

Demographic changes to have major impact. While some of the countries in Central Asia and the Caucasus are projected to have low population growth rates, the region overall will experience an annual growth rate of 2 percent between 2005 and 2020, increasing the population from 361 million in 2005 to about 487 million in 2020. Two other critical demographic changes will be continued urbanization (especially in West Asia where about 78 percent of the population will live in urban areas by 2020) and the high proportion of the working age population, which will have a significant impact on the economic and social situation.

Continued economic growth, although uneven and dependent on fossil fuel production, processing and trade. Much of the economic vibrancy of the region depends on the rapid growth of incomes from the exploitation of oil and natural gas. The primacy of oil as the most important source of energy is unlikely to be affected in the foreseeable future, helping to sustain the high economic growth rates of the oil producing countries. Some countries, however, will not have the same opportunities and their economies will likely remain precarious. In the absence of opportunities for economic diversification (except through migration for employment in the better-off countries), dependence on land – through agriculture and animal husbandry – is likely to persist.

Uneven progress in policy and institutional reforms. While most countries are making efforts to improve policy and institutional frameworks, overall progress is still uneven. The next 15 years will continue to witness changes on these two fronts, which will alter the investment climate and the choices available to the various players. With the exception of a few countries, the prominent player in the forest sector is the government. However, most forestry organizations are confronting institutional inadequacies stemming mostly from insufficient human and financial resources.

Conflicts and instability undermining economic and institutional development. Being the critical source of fossil fuel supply to the world, the West and Central Asia region is at centre stage of global geopolitics, and the competition to control energy supplies remains the major factor for instability in the region. Political, institutional and economic fallouts from conflicts and instability are affecting the forest sector directly and indirectly. Wars and conflicts have severely affected the forest situation in a number of countries, especially because large tracts of forests are located in conflict zones making management infeasible.

Probable scenarios

What will happen to the forest sector in the next 15 years will largely depend on the collective impact of the developments in the economic, policy and institutional fronts. At least three broad scenarios can be visualized with differing consequences for the forest sector. They are:

Scenario 1: Struggling to achieve development. Some countries will continue to have poorly developed economies and weak institutions. This is particularly true for countries that lack natural capital and where investments for building up human capital are limited. Poor economic situation and weakly developed institutions result in a mutually reinforcing vicious cycle. Countries under this scenario will continue to face serious difficulties in mobilizing resources for improving the forestry sector.

Scenario 2: Unbalanced development. A number of countries in the region are experiencing rapid economic growth, which is due, and dependent upon, the extraction and processing of fossil fuels. However, this has often produced imbalances in the economy, undermining the development of other sectors, including forestry. Even though the availability of financial resources is not a major problem, forestry remains marginalized because of institutional weaknesses.

Scenario 3: Balanced development. Only a few countries are making adequate efforts to diversify their economic base and build up pluralistic institutions. Economic growth is even, and broad-based institutional development has enabled more people to participate in economic activities. Economic and institutional vibrancy enables countries under this scenario to take advantage of the opportunities provided by globalization.

Regional forest situation dependent on the prevailing scenarios. The proportion of countries under the three scenarios will change over the next 15 years. While for some the situation may improve (or deteriorate if adequate attention is not paid to manage the economic and political challenges), others will continue to remain in their current state of economic and institutional development. The overall situation of forests and forestry in the next 15 years will thus depend on the changes in the proportion of countries under the different scenarios.

Probable state of forests and forestry

Forest cover likely to stabilize and increase in many countries. The extent of forests and woodlands is expected to increase in most countries, largely because of the declining importance of agriculture (including animal husbandry) as the main source of income and employment. Increasing urbanization and the development of the manufacturing and services sectors could help to reverse agriculture expansion. There will also be some increase in afforestation and reforestation compensating the loss of forests, although not the loss of biodiversity. Most afforestation efforts will focus on environmental improvements – establishing shelterbelts and windbreaks and creating urban green spaces.

Degradation to remain a major problem in several countries. Degradation will remain a major problem that several countries will have to confront. In the countries where substantial forest cover exists, an increase in timber exploitation – both legal and illegal – could be anticipated.

Sustainable forest management still out of reach. Although some countries may be able to increase their forest cover, the ability of most countries to implement sustainable forest management will remain limited. This will require substantial efforts on the policy and institutional fronts. Moreover, problems such as forest fires are expected to worsen.

Most demand for wood and wood products to be met through imports. The growth in population, the increases in income and the changes in lifestyles, especially due to urbanization, will increase wood product consumption. During the next 15 years, consumption is expected to grow at an average annual rate of 3 to 4 percent for sawnwood and 4 to 5 percent for wood-based panels and paper and paperboard. Faster growth (in relative terms) is expected in Central Asia, whose economies are on the path of recovery. The value of forest products imports is likely to double in the next 15 years (from the 2005 level of US$12.7 billion), and the region will remain the most important net importer of wood and wood products.

Growth in wood industry based on imported raw material. The scope for enhancing industrial wood supplies from within the region is extremely limited and most of the demand will continue to be met through imports from outside the region. Some of the countries that are strategically located and have a large domestic market (for example, the Islamic Republic of Iran and Turkey) will be in a better position to develop forest industries based on imported industrial roundwood. The declining profitability of Europe's wood industry could further speed up the relocation of industries to West and Central Asian countries that have low labour costs, stable investment climate and access to wood supplies from within and outside the region.

Increased demand for environmental services. Considering that most countries are experiencing a general upward trend in incomes, an increase in the demand for environmental services is inevitable. Improvements in transport (e.g. the revival of the Great Silk Road) and communications, together with political stability and improved security, are expected to boost internal and international tourism in the region. The recreational value of forests and woodlands will continue to increase rapidly in the coming years, requiring substantial efforts in their management in order to prevent degradation. A major shift will be necessary in the objectives and approaches to resource management within the context of the growing importance of forest-based recreation.

Increased investments in urban forestry. Urban forestry is another area that will witness substantial expansion as some countries begin to diversify their economic base by expanding banking, trade, tourism and other service sectors. However, forests and woodlands close to urban areas will be subjected to intense pressures for conversion and for recreation.

Arresting desertification to remain a key concern. The demand for protecting agricultural land and habitations from desertification and land degradation will also increase, requiring higher investments for establishing shelterbelts and windbreaks. Much of this will, however, depend on the ability of the key players, namely governments and farmers, to make such investments.

WHAT NEEDS TO BE DONE TO IMPROVE THE SITUATION?

Undoubtedly, the priorities and strategies will differ among the countries depending on the current and emerging economic and institutional scenarios. Yet the broad similarities of the environmental and socio-economic conditions make it possible to identify some common priorities and strategies. As the overall economic and institutional environment transforms, so will the demand for forest products and services and society's ability to meet the demands.

Common priorities and strategies

Provision of environmental services to remain the primary objective. Considering the environmental situation of the region – the arid and semi-arid conditions, the high level of desertification, declining agricultural and rangeland productivity because of land degradation, loss of biodiversity, increasing water stress – the provision of environmental services will be the most important concern for almost all countries. The use of forests for recreation through ecotourism is another growth area.

Policies that enable integrated resource management. Enhanced provision of environmental services and production of wood and other products require policies and strategies that cut across sectoral barriers and that adopt a landscape approach. This could imply that forestry may not exist as a distinct sector, but forestry concerns are integrated with those related to other land uses, especially agriculture and range management. Traditionally, forest policies have largely focused on areas that are controlled by public-sector forestry agencies (State Forest Funds as in the case of many former Soviet Republics). Integrated land use would involve going beyond the traditional domain of foresters, requiring more broad-based approaches and the attendant skills.

Institutional reinvention unavoidable. The formulation and implementation of policies for integrated land management requires that countries have more broad-based institutions. Revamping public-sector forestry agencies, which currently play a dominant role, will require a re-examination of their core values, functions and structures and making appropriate changes. The increasing role of the private sector, community groups and civil society organizations provides new opportunities for the production of forest products and environmental services. In some cases, this would require substantially reinventing existing institutions.

Realizing the full potential of intercountry collaboration. Ecological contiguity of countries in the region (especially through shared watersheds) underscores the importance and potential for intercountry collaboration. The sharing of information and technology and undertaking joint initiatives are important to reduce costs and to enhance the effectiveness of resource management initiatives. Subregional and regional collaboration is particularly relevant in addressing problems such as fire and pest and disease outbreaks. Management of transboundary protected areas is another activity where intercountry collaboration is particularly important, or even a necessity. Resource assessment, education, research and training are other areas that could significantly benefit (especially by way of reducing costs) from subregional and regional collaboration.

Scenario-specific strategies

Differences in the current and emerging economic and institutional environment necessitates that countries fine-tune their priorities and strategies to make them relevant to the specific scenarios.

Struggling to achieve development: build up from the base. Under the scenario of "struggling to achieve development", institutional and economic constraints will necessitate that countries adopt a strategy of "build up from the base". This particularly focuses on using less resource-demanding options, largely relying on local institutions. Interventions should thus emphasize:

- meeting people's basic needs sustainably;
- building up local institutional capacity;
- improving and adapting local-level technologies and upgrading skills;
- focusing on less resource-demanding investment options.

Institutional development a priority under the "unbalanced development" scenario. Although the resource situation is less precarious under this scenario, the rapid growth of a dominant sector (one that generates most of the economic surpluses) undermines the economic viability of most other traditional sectors. A major problem is that while production aspects of forests and forestry are unlikely to get much political attention, they are also less economically viable, especially in view of low productivity and the high real costs of inputs such as water. The overall approach of "improve fundamentals and change direction" involves the following components:

- encouraging pluralistic institutional arrangements;
- improving the role of public-sector agencies as facilitator to support the development of other institutions;
- upgrading technologies and skills.

Ensuring sustainability of "balanced development". While countries under the "balanced development" scenario are better off economically and institutionally, they need to be vigilant to sustain their advantages. Operating in a highly globalized situation requires continuous adaptation to internal and external changes. Strong external linkages increase competition in both domestic and external markets and this would necessitate continuous scaling up of the quality of products and services provided. Much of the thrust will be to:

- maintain vibrancy of institutions and their adaptability;
- invest in human skills to improve efficiency and competitiveness;
- focus on unique and high-value products and services.

NEXT STEPS

No doubt the region will witness significant political, economic, social and environmental changes in the next 15 years, especially as countries address the different challenges and become more integrated into the world economy. The broad priorities and strategies outlined above need to be elaborated and adapted to the specific situation of each country. Improvements in national forest programmes should particularly focus on institutional adaptation and reinvention, especially through integrated resource management, strengthening the strategic planning capacity and improving the information base.