

Strategy for the Sustainable Development of Forests and Pasture in Tunisia, 2015 - 2024

For a transition to a green economy

by Youssef SAADANI

During the session “Tools and initiatives for forest development” of the 4th Mediterranean Forest Week in Barcelona, two national strategies revealed how such tools and initiatives can be incorporated into national forest policy orientations. This article presents the national strategy developed by Tunisia for the period 2015-2024. This strategy, allows plenty of scope for dialogue, tackles the issues of climate change and governance, with the involvement of public and private partners.

The data presented in this article date from 2014.

Context and overview of the forestry and pastoralism sectors in Tunisia

Tunisia, with an area of 164,000 km², covers the eastern part of North Africa, with a 1,300 km coast running along the Mediterranean. Despite being small, the country is characterized by a mosaic of landscapes and diversified ecosystems made up of forests and natural grazing land extending over some 5.7 million hectares, roughly a third of the country's total. Forests and woodlands cover 8.2% of national area, or some 1.3 million hectares, of which 95% are state-owned and on which the local populations have rights of use that are recognized in law. The extensive grazing lands cover around 4.4 million hectares, of which the largest part is collectively held, and they are subject to the forestry régime.

The country's climate is typically Mediterranean, humid to sub-humid in the north and on the east coast, semi-arid in the interior and sub-Saharan in the south. The average temperature varies from 11.4°C (December) to 29.3°C (July). Rainfall is irregular and concentrated in the cold season (3/4 of total annual rainfall): 800 mm in the north, between 50 mm and 150 mm in the south.



Picture 1:
Steppe-land grazing plays a fundamental role in fostering livestock farming.
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The silvo-pastoral sector harbours a very large genetic reserve of plants and animals, including 2,200 plant and 500 animal species, and thus contributes to environmental equilibrium via a network of protected areas which includes 17 national parks, 27 nature reserves and 256 wetland areas of which 35 are Ramsar sites. These forests and grazing lands contribute to the preservation of biodiversity and the protection of soils along with the country's water resource while also helping to attenuate the impact of climate change by functioning as a carbon sink.

The areas of forest and grazing land provide a home to 8%-10% of Tunisia's population, representing some 800,000 to 1 million people, most of whom are poor with a livelihood from silvo-pastoral activity. The ecosystems involved generate goods and services with an annual worth of more than 1 million Tunisian Dinars, representing around 1.5%

Picture 2:
Exploiting the turpentine bush (*Pistacia lentiscus*), a source of supplementary income for forest-based families.



of the GNP. They also provide between 15% and 25% of the food requirements of the nation's livestock as well as supplying 14% of household energy needs. 30% to 40% of rural household income derives from assorted forest products which also provide raw materials for the various industrial sectors involving timber and non-woody forest products such as cork, aromatic and medicinal plants, esparto grass, mushrooms, etc. Such activities linked to forests and woodlands and livestock-farming represent between 5 to 7 million man days of work annually, equivalent to 17,500 permanent jobs, which enable some 100,000 households to earn an average yearly income estimated at around 900 TD (US \$450)¹.

The forest formations in the humid and sub-humid areas play a critical part in regulating the country's climate and water table but they are subjected to a continuous process of deterioration as a result of human activity, notably excessive exploitation and over-grazing. This process has worsened in recent years due to phenomena related to climate change.

Since the beginning of the 1990s, the Tunisian government has adopted 10-year strategies at a national level for its forests. The most recent, for the sustainable development and management of forests and grazing land (2015-2024) has just been adopted in concert with the different partners involved.

Designing the strategy for 2015 - 2024

At a national level, the instruments for the implementation of forestry policy are the national programme for forests (NPF), the strategy for economic and social development and the strategy for country-wide sustainable development. The NPF encompasses several concerns, including the production function of forests and their contribution to rural development, their role in the protection and enhancement of biodiversity and, also, the social, recreational and cultural issues linked to such questions.

¹ - 1 dollar equals 1.94 Tunisian dinars

Previous strategies and action plans have tackled the issues of increasing the area covered by forests and woodlands and grazing land, the fight against wildfire, the conservation, development and management of plants, wildlife and protected areas, water and soil conservation, rational use of pasture and grazing land and the socio-economic development of the forest-based population. Despite the integration of these strategies, action plans and studies into the Ministry of Agriculture's (MA) ten-year development programmes, a sector-focused dimension has continued to characterize such initiatives. Inadequate concertation between the partners involved remains obvious, especially at the local and regional levels, severely hindering the implementation of the initiatives and compromising their anticipated results.

In drafting the new strategy, these pitfalls have been taken into account. And so, also, has the new socio-political context in the country, notably:

1. The consequences of the revolution (January 2011) for the role and place of the forestry sector in integrated rural development, for the socio-economic development of the forest-based population and for the importance of accurately targeting programmed interventions;

2. The growing interest in the phenomena linked to climate change and the necessity of taking them into consideration when programming action and mobilizing existing international funding. Thus can the negative impact of climate change on natural resources, particularly on forests and grazing land, be countered and a very significant contribution made to reducing emissions from the use of fossil fuels. And hence the importance of reflection on the measures required to help forests adapt to the new climatic conditions ;

3. Greater awareness of the need to pay for the services to the environment, both direct and indirect, that accrue in quantity from the forest and livestock grazing sectors and in very diverse ways from the forestry sector;

4. The possibilities for funding and for an evolution in alternative ways of fostering joint public/private investment in the forestry sector.

In fact, designing this new strategy has been based on wide concertation and is the result of an interrelated three-stage process:

- Phase 1: Assessment of the Forestry Strategy 2002-2011 and analysis of the state of the National Programme for Forests (NPF),

- Phase 2: Identification and formulation of the new Strategy 2015-2024

- Phase 3: Finalisation and consolidation of the Strategy 2015-2024.

General orientation and main constituents of the Strategy

With the aim of making the sector's overall vision a reality, the objective in developing the strategy has been to launch an operational process of planning and sustainable management of forestry and pastureland resources with the aim of ensuring an enhanced contribution by the sector to achieving the nation's goals of sustainable development as well as to those worldwide aims related to preservation of biodiversity and limiting climate change.

To this end of strategic development, four specific but linked objectives were laid down for the strategy:

1. Adapting the sector's institutional and regulatory framework. This should facilitate

Picture 3: Massive pressure on silvo-pastoral resources: gathering esparto grass.



2 - UNFCCC: United Nations Framework Convention on Climate Change
 CBD: United Nations Convention on Biological Diversity
 UNCCD: United Nations Convention to Combat Desertification

the emergence of an institutional and regulatory environment, along with the capability and skills, favourable to the sustained commitment of all those (users, institutional partners, stakeholders in private sector and the general public, partners in development) involved in the sustainable management of forests and grazing land.

2. Optimisation of the contribution of forests and grazing land to the socio-economic development of forest and pastoral regions and to the national economy. The sector's resources are to be managed over the long term so as to maintain, improve and make them profitable, particularly those likely to underpin:

- the socio-economic development of the inhabitants of forest and pastoral regions, men, women and their offspring, which should favour the inception of the sustainable management of resources;
- development activities in other sectors or subsectors of the economy linked to forests and grazing land, notably green tourism and ecotourism and domestic energy;
- development of the green economy through more involvement of the most vulnerable social groups, especially women and young people;
- better performance in the supply of forest products covering the needs of the local and national markets; and
- more generally, enhancing the dynamic of the forest-based and livestock grazing economy to foster its contribution to the national green economy with special focus on vulnerable groups.

3. Maintaining and improving the environmental functions and services of forests and

grazing land. Forests, woodlands and pasture will be protected and managed for the long term to ensure that they remain intact, the environmental functions and services of their ecosystems maintained and improved; notably:

- maintaining productivity of the wildlife and plant resources;
- protecting hydrological systems to prevent deterioration of soils and the water resource;
- conserving biodiversity and the genetic resources of forests and pastureland.

4. The consolidation and improvement of forest and grazing cover. The forest and grazing cover of the steppe and sub-Saharan regions, including the esparto grass areas, will be improved in both quantity and quality for the purpose of increasing their contribution to attaining national goals of sustainable development and the worldwide objectives laid out by the Rio conventions (CNULCD, CBD, CCNUCC)² concerning biodiversity, adaptation aimed at limiting climate change and the fight against desertification. Stress will be placed on the development and improvement of the forest and grazing cover via reforestation and improved grazing land which, over time, will help in the protection of ecosystems at the level of catchment areas and of landscape and will protect ecosystems and habitats in the steppe/sub-Saharan zones and contribute to fighting desertification.

The implementation of the strategy will be carried out within the framework of well-defined projects. The responsibility for this implementation will fall mainly on the Forestry Service and, in an ancillary role, institutional and non-institutional partners, namely:

- 1) Public-sector partners including:
 - The institutions and bodies at different levels of the Ministry of Agriculture, along with its regional services, notably through special projects for integrated development of forest, woodland and grazing regions;
 - Certain development services of the Ministries of Tourism, Industry, Trade and Skilled Trades, all of which are to some degree affected by the management and profitable uses of forests and grazing land.
 - Certain development services of the Ministries of Home Affairs, Public Works

Picture 4:
 Rôle of forests in soil and water conservation and the protection of hydraulic engineering works.



and the Environment and the Ministry responsible for regional development, all of which are involved in the management and administration of the regions, particularly countryside areas.

2) Private-sector partners, organized or not, and their professional, or related socio-professional, organisations concerned with the co-management of forest and grazing resources and the development of the forest products sector.

The Forestry Service will be in overall charge of implementing the strategy in its different aspects, which include:

- planning, scheduling;
- monitoring and assessment of the undertakings and auditing the corresponding costs, performance and results; it will also draft reports on the implementation of the strategy;
- mobilizing resources and funding at a national and international level in coordination with the relevant services of the Ministry of Agriculture (international cooperation, DGFIOF³) and those of other ministries (Finance, Economic Development and Cooperation);

The strategy: the issues and challenges

The issues at the heart of the strategy and the challenges it faces are considerable, on account of the importance of this sector's resources in its social, economic and environmental context and its impact reaching into other fields of social and economic life (water and soil conservation, livestock farming, industry, domestic energy, tourism, etc.). Also, in its modest way, the sector is involved in the planet's environment (a role in preserving biodiversity, in limiting climate change, etc.). Essentially, these issues and challenges acquire meaningful impact in the light of the Forestry Service's capacity to adapt and thus consolidate and make the most out of acquired experience and of good governance of the sector's resources; and when the sector embraces its national and international implications. Updating the regulatory framework is also necessary

OBJECTIVE / Programme / Sub-programme	Total S/Prog. (M DT)
OBJECTIVE 1 : ADAPTATION OF THE SECTOR'S INSTITUTIONAL AND LEGAL FRAMEWORK AND REINFORCEMENT OF ITS CAPABILITY	
<i>Programme 1 : Restructuring and reinforcement of the Forestry Administration's capability</i>	
– Sub-programme Reform of the Forestry Administration	0,6
– Sub-programme Reinforcement of capability of the Forestry Administration	1,1
– Sub-programme Consolidation of the drafting process and revision of the INFP	14,0
– Sub-programme Research/Development	1,0
– Sub-programme Funding for the sector	0,4
– Sub-programme Clearing up unhealthy forest landholding patterns	0,6
Sub-total programme 1	17,6
OBJECTIVE 2 : OPTIMISATION OF THE SECTOR'S SOCIO-ECONOMIC DEVELOPMENT	
<i>Programme 2 : Optimisation of the sector's contribution to socio-economic development</i>	
– Sub-programme Socio-economic development of forested areas	72,1
– Sub-programme Socio-economic development of grazing and pasture land	120,5
– Sub-programme Socio-economic development of esparto grass areas	45,4
– Sub-programme Socio-economic development of profitable use of forests and grazing land	2,2
– Sub-programme Development of the PPP for the co-management of forest resources	1,3
Sub-total programme 2	241,4
OBJECTIVE 3 : MAINTENANCE AND IMPROVEMENT OF THE ENVIRONMENTAL FUNCTIONS AND SERVICES OF THE SECTOR'S RESOURCES	
<i>Programme 3 : Maintenance and improvement of the environmental functions and services of the sector's resources</i>	
– Sub-programme Protection of forest resources	60,5
– Sub-programme Consolidation and improvement of the management of forests and esparto grass areas	182,5
– Sub-programme Consolidation and management of PA and conservation of biodiversity	12,9
– Sub-programme Consolidation and profitable use of wildlife	0,2
– Sub-programme Limiting the effects of CC	0,5
Sub-total programme 3	256,5
OBJECTIVE 4 : MAINTENANCE AND IMPROVEMENT OF THE CAPITAL RESOURCES OF FOREST AND GRAZING LAND	
<i>Programme 4 : Consolidation and improvement of the forest and grazing cover</i>	
– Sub-programme Improvement of forest cover and limiting the deterioration of soils	275,5
– Sub-programme Improvement of grazing land cover and fighting desertification	59,0
Sub-total programme 4	334,5
TOTAL STRATEGY	850,0

3 - DGFIOF : *Direction générale financement, investissements et organismes professionnels* = Central Department for Funding, Investment and Professional Organisations.

Youssef SAADANI
Director General
of Forests
Ministry of
Agriculture
MARHP
30 Rue Alain Savary
1002 Tunis
TUNISIA
Email :
ysaadani04@yahoo.fr

because some aspects relate to fostering dynamic initiative, to promoting partnerships and to the involvement of all stakeholders concerned.

Implementation of the strategy must also take into account the continuity and consolidation of sector-wide measures for development through the improvement of the users' wellbeing, revitalizing the forest and livestock-grazing economy, job creation and meeting the national demand for forest products. Special attention must be given to the long-term preservation of the capital represented by natural resources which are threatened by an increased demand on forest products and services, by pressure from land development on pasture land and esparto grass areas, and by the aggravated consequences of desertification due to the heightened impact of climate change on the arid and semi-arid regions' vulnerable natural ecosystems.

Summary of the action plan and costs of the strategy

The action plan represents the effective transformation of the various features making up the strategy's objectives into actual programmes, sub-programmes and activities. In this way, each of the strategy's objectives is backed up by a programme which is itself composed of a number of sub-programmes also made up of constituent parts and activities that can be carried out together or separately. Each sub-programme is described in a guideline presentation which includes (1) the sub-programme's context and justification, (2) the objectives, (3) the expected results along with some general indicators of performance, (4) the constituent parts/activities prescribed for achieving the expected results, (5) an overall estimate of the inputs needed to obtain the results, and (6) a provisional schedule for the undertaking. In all, 18 sub-programmes have been formulated. The table below lists the costs of the action plan broken down for each sub-programme.

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Summary

Tunisia has recently adopted a new strategy for the sustainable development and management of forests and grazing lands which cover 34% of the country, equivalent to 5.6 million hectares. This strategy, which was presented to the 4th Mediterranean Forest Week in Barcelona (17-20 March 2015), covers the period 2015-2024. Its objective is to bring a dynamic impetus to the forestry and livestock grazing sectors in Tunisia while at the same time ensuring sustainable local development, with jobs and income for the 800,000 people who live in these vital but vulnerable ecosystems. In practical terms, the new strategy seeks to implement a favourable framework for developing a green economy, reinforcing awareness about the impact of climate change on forest and grazing land species and promoting public-private partnerships as underpinning for sustainable development.

Résumé

La Tunisie vient de se doter d'une nouvelle stratégie de développement et de gestion durable des forêts et des parcours qui couvrent 34% du territoire national, soit 5,6 millions d'hectares. Présentée à Barcelone, lors de la 4^e Semaine forestière méditerranéenne (du 17 au 20 mars), cette stratégie couvre la période 2015-2024. Elle vise à dynamiser le secteur forestier et pastoral en Tunisie tout en garantissant un développement local durable, créateur d'emplois et de revenus pour plus de 800 000 personnes vivant dans ces écosystèmes vitaux très vulnérables. Concrètement, la nouvelle stratégie vise la mise en place d'un cadre favorable incitatif au développement de l'économie verte, le renforcement de la prise de conscience quant à l'impact des changements climatiques sur les espaces forestiers et pastoraux et la promotion du partenariat public-privé, en tant qu'appui au développement durable.