Moving towards integrated management of forests in Tunisia

C.M.Larbi

Chakroun Mohamed Larbi is General Forest Engineer, Tunisia, and President of the International Association for Mediterranean Forests.

An appropriate solution for forest management on the southern shore of the Mediterranean.

The Tozeur oasis In Tunisia illustrates one formation of characteristic Mediterranean forest formation

Located between the temperate zones in the north and the desert zones in the south and east, the forest stands around the Mediterranean develop in a climate characterized by irregular rainfall and a dry summer season. The xerophilous vegetation of which they are composed is well known to give low yields of mediocre timber, and it is reputed for its great vulnerability to fires.

In the north of the Mediterranean the forests are uninhabited, unlike those in the south, which accommodate a large population - sometimes one inhabitant per hectare. A survey conducted by the Tunisian Forest Administration in 1987 revealed that there were 800 000 users, representing more than 100 000 families, with the equivalent of five livestock units per family, in and around the state-owned forest property covering 905 000 ha. This population exerts continuous pressure on the forest stands through deforestation and overgrazing, which makes the conservation of these forests and their development something of a feat.

INAPPROPRIATE FORESTRY

Trained in European forestry schools, the first foresters from the southern shore of the Mediterranean implemented a timber and cork production strategy based on management that, in accordance with the forest legislation in force, grants rights of use to the forest populations and provides for ambitious reafforestation programmes to combat unemployment. In Tunisia, this concept of use rights is a legacy from preprotectorate times when the country's forests were virtually uninhabited. It was only following the colonization of the land, encouraged by the protectorate, that coastal forest dwellers began to live there, carrying out deforestation operations and growing subsistence crops. These use rights had a non-commercial aim and only covered the gathering of dead wood, the ranging of a limited number of animals and the harvesting of certain so-called secondary products for family consumption.

The presence of this population in and on the periphery of what is almost an entirely state-owned forest has often been regarded as a hindrance to the proper implementation of appropriate forestry. In fact, these populations often sought to satisfy their subsistence requirements via unlawful felling, charcoal burning or overgrazing. Moreover, the area ranged

by the population's livestock was reduced by the establishment of young woodland areas that were closed to grazing animals, as they were needed for natural regeneration and for young plantations. In addition, to meet the needs of a steadily increasing forest population, forest clearing had constantly grown to the detriment of the natural plant cover. The resulting official reports aggravated the antagonism between state forest employees and users. This divergence between two apparently opposite strategies accounts for the continuous degradation of the forests despite major efforts made by the state for their protection and development and despite the great potential of the forests and Mediterranean natural land areas.

Preparing planting material of* Pinus pinea and Pinus halepensis *at a forestry nursery at Kelibia, Tunisia

Planting seedlings of* Pinus pinea and Pinus halepensis *at a forestry nursery at Kelibia, Tunisia

NEED FOR CONCERTED FOREST

^MANAGEMENT Faced with this situation, "pastoral improvement" measures were begun in 1970 to relieve the pressure on the forests. These developed hand in hand with the reafforestation perimeters and regeneration operations to compensate for limiting access of grazing animals to young woodland. Although this measure mitigated the antagonism between users and forest employees, it has proved inadequate. It has nevertheless made it possible both to evaluate the positive impact that can be achieved by taking a single concern of forest users into account and to envisage other measures that are not detrimental to the forests.

- Purely technical silvicultural solutions have proved insufficient for achieving the objectives laid down by the different forest development plans. An analysis of the sector has offered two alternatives:

  - evicting all the occupants of the forest in order to be able conduct pure forestry there; or

  - integrating the forest populations into the economic circuit of the forest by regarding them as an important constituent of the forest ecosystem.

Since the first measure is far more Utopian, it is unachievable in many respects. The second, which is more logical, requires major efforts to adapt forestry by integrating the social aspect with non-forest development components. This is effectively a change in the conception of forestry, dictated by the specific situation of southern Mediterranean forest stands. The presence of humans in these environments has been a decisive factor and must receive due consideration in the formulation of any protection or development measure.

In Tunisia, rehabilitation of the forest sector can be directly linked to the present government's instatement on 7 November 1987. By virtue of firm political determination, new orientations in forestry policy could be mapped out, with priority being given to people and a sensible coexistence between humans and the forest recommended. This was practically applied by an overhaul of the Forest Code in April 1988 and the preparation of a national reafforestation and soil protection strategy, the implementation of which began in 1990 with a substantial increase in the national budget for forestry.

As far as regulations are concerned, Article 43 of the revised Code provided for the organization of the forest population into Collective Forest Associations (CFAs). This form of representation allows this population to be a responsible partner that is able to conduct a dialogue with the Forest Administration, participate in a diagnosis of the current situation and

draw up a forest development programme covering operations and measures to raise its members' living conditions and income. This concept is to be found in Article 16 of the Code, which requires the person in charge of forest management to "take account of the legitimate interests of users". Foresters, therefore, must no longer think exclusively of timber production but also of the right of users to a decent life. It should be possible to achieve this right, since the Mediterranean forest offers a wide diversity of resources that are often not put to use, such as the basis for ecotourism, the rearing of game and wild fauna, the production of aromatic and medicinal plants, small livestock production, the rationalization of farming in forest clearings and the setting up of small businesses for forestry operations.

For these new forest policy orientations to be implemented successfully in Tunisia, a climate of mutual confidence must be established between foresters and users. This requires a change in the behaviour of technical experts *vis-à-vis* the forest inhabitants, who must become partners in forest development. Technical experts must cease to be seen as agents of repression who claim to know the entire truth and must try instead to promote socio-economic development, always listening to users so as to target lasting forest development more accurately. In support of this new approach, a drive to train and retrain forest technical managers in the fields of socio-economics and rural organization has already begun, but it must be followed through and consolidated. Forestry education ought rapidly to adapt its training programmes so as to perfect the programme of new forestry technical experts.

Research is expected to include the social dimension and integrated, multidisciplinary aspect of forestry in order to adapt the approach better and assist in finding solutions appropriate to specific development contexts - as these vary widely from one region to the next.

Recourse to the services of specialist NGOs, at least initially, is likely to help the Administration and users in the practical application of the new approach, whether it be in organizing the population and diagnosing situations or identifying the programme and implementing and evaluating its socio-economic and environmental impacts.

PILOT OPERATIONS FOR INTEGRATED DEVELOPMENT

The North-West Silvicultural/Pastoral Development Office (ODESYPANO) has been conducting an experiment in integrated forest management for more than ten years now. ODESYPANO has applied a participatory approach for the agricultural/silvicultural/pastoral development of the mountainous areas of northwestern Tunisia. In particular, it has established permanent meadows in forest clearings, carried out water and soil conservation operations and introduced agroforestry as part of plans for the development of land in consultation with the local rural committees concerned (organized beforehand into development committees). This has served as an example for the implementation of concerted forest management and has shown that the measures and action projects decided on and carried out with the target population are more lasting than those drawn up and implemented following an administrative approach.

The wider practical application of this new approach really began with the planning of ten Pilot Integrated Development Operations (PIDOs) in the different forest regions in 1994. The implementation of the studies and execution of these operations is planned with the assistance of NGOs, which have solid experience in techniques for rural organization and mobilization of populations and in basic planning. Following the restricted call in mid-1994 for tenders from development NGOs, seven participatory development studies were carried out. Some have been slow to be completed but this should not be unexpected, bearing in mind the innovative nature of the approach and the time needed to ensure involvement of the target populations. Responsibility for conducting the studies is to be entrusted to the NGOs that prepared them. Currently only one, PIDO (Zilia, in Sejnane), has been the subject of an agreement with the NGO called ATLAS, and related work began in February 1997.

It should be pointed out that the ten PIDOs comprise a total area of 21 500 ha, containing very small agricultural holdings (70 percent are of less than 5 ha) with a forest area varying between 50 and 80 percent of the total. As for the population, this stands at about 9 600 inhabitants, made up of 1 760 families grouped into microlocalities, or "douars". In addition to forestry measures, integrated development programmes have included:

- basic infrastructure such as paths, drinking-water, health centres, electrification, improvement of habitat;
- increasing agricultural production;
- putting forest products and byproducts to use;
- environmental protection activities such as agroforestry, water and soil conservation and timber energy economics;
- improving human skills through training and the promotion of microprojects, such as small livestock production, the distillation of aromatic essences and craft trades.

The integration of women's activities has been achieved by the participation of women in the planning stage.

All the activities adopted reflect the drive to integrate a wide diversity of measures with a reduction in cereal-growing on sloping land. Infrastructure generally constitutes the first priority of populations - development and protection measures, respectively, come next. Backup measures particularly concern training and credit, with the objective of promoting small forestry operations.

The cost of all the operations planned in the ten PIDOs is 14 200 000 Tunisian dinars (1 D = US$1), nearly 30 percent of which is devoted to women's activities such as keeping home gardens, raising small livestock, distillation and craft trades.

A participatory system of monitoring and assessment is planned, although the complete involvement of users in the participatory process allows us to be optimistic regarding the success of the approach and, especially, the lasting development of the forests.

A GRADUAL GENERALIZATION OF THE APPROACH

Another important step has just been taken by the Forest Administration in connection with implementing the provisions of the new forest legislation. The move concerns adoption of the principle of integrated forest management, with priority being given to the concerns of forest populations. These populations are no longer regarded as enemies of the forest but as responsible elements contributing towards forest development and deriving benefit directly or indirectly from forest land. Hence, 85 000 ha of forest stand have been managed since 1996, beginning with the formal organization of the populations into CFAs. To avoid any deviation from the set course, accelerating and finalizing the initiation of forest technical experts into the participatory approach is becoming a matter of urgency if success of this very promising experiment - probably the best suited to inhabited forests - is to be assured.

Along the same lines, several projects -including forest stands - have recommended the same approach in close cooperation with the Forest Administration. A case in point is the natural resources management project that adopted the participatory approach to agricultural development in its broadest sense. In fact, in the project document, a whole chapter deals with the "concerted" management of forests contained in a given land area, emphasizing the

complementary nature of agricultural/forestry/pastoral activities. This is also the case with water and soil conservation (WSC) projects which, since the appearance of the WSC Code in 1995, are inconceivable without the involvement of the farmers concerned.

Tabarka, Tunisia -cork that has been harvested and slacked

REGIONAL AND INTERNATIONAL COOPERATION

At various sessions of the FAO Committee for Mediterranean Forestry Questions, *Silva Mediterranea,* the view that forest users' concerns should be taken into account has been put forward by Maghrebi foresters as a primary consideration in southern Mediterranean forestry. The Maghrebi forest meetings, organized in collaboration with FAO *(Silva Mediterranea)* in Tunis from 12 to 14 November 1993, confirmed that this was the approach to be adopted. It is recorded in the final document of the Mediterranean Forest Action Plan, which was prepared by FAO and serves as a reference for the preparation of national action plans.

This participatory approach has already been adopted and is beginning to be implemented in other inhabited forest regions, for example tropical forests, in accordance with the guidelines of the former Tropical Forests Action Programme (now National Forest Programmes) adopted by FAO. The involvement of the populations concerned has become a step that cannot be ignored; it has, moreover, been adopted by international agreements for combating desertification and biodiversity, which consider the involvement of these populations a prerequisite for lasting development. Moreover, a drive focused on cooperation and the exchange of experiences at the subregional level is desirable, with respect both to the implementation of this new approach and to the adaptation of forest research and training.

CONCLUSION

The sectoral strategies conceived according to the "top down" method have admittedly allowed the modernization and extensive development of Tunisian agriculture as well as the conservation of natural forests and the expansion of the afforested area. However, these strategies have often fallen short of their objectives. This finding has led to the idea of perfecting the strategies by understanding the mechanisms governing rural populations' use of each natural resource and by taking their needs into account in all development programmes.

It is not surprising, therefore, to encounter the integration of measures (basic infrastructure, agronomy and silviculture/pastoralism, etc.) in sectoral projects, with one or other of the measures predominating, depending on the nature of the project and the socio-economic conditions in the zone of the project in question. The opening up of the forest sector, the involvement of users and the encouragement of private initiatives are likely to ensure that the forest sector develops and projects continue. Research programmes and others aimed at training technical managers should also be in tune to ensure that the integrated, participatory approach described here is applied properly.

Bibliography

Boudy, P. 1952. *Guide du forestier en Afrique du Nord.* Paris, La Maison Rustique.

FAO. 1989. *La politique forestière en Tunisie.* By Chakroun, M.L. Rome. 27 pp.

FAO. 1995, *TFAP update.* Rome. 369 pp.

Government of Tunisia. 1966. Code forestier tunisien. In *Journal Officiel de la République Tunisienne.*

Government of Tunisia. 1988. Code forestier tunisien. In *Journal Officiel de la République Tunisienne.*

Government of Tunisia. 1987-1997. *Rapport d'activité annuelle.* Tunis, Direction générale des forêts.

Government of Tunisia. 1993. *Synthèse des rencontres forestières maghrébines.* Tunis, Direction générale des forêts.

Gueye, B. & Schoonmaker Freudenberger, K. 1991. *Introduction à la méthode accélérée de recherche participative,* 2nd ed. Dakar. 70 pp.

Khessaissia, B. 1997. Plan d'action de mise en place des AFIC (Groupement GOPA-IGIP). Tunis.

UNCED. 1992. *Action 21. Promotion d'une agriculture et d'un développement durables.*

University of Tunis. Faculté des sciences juridiques, politiques et sociales. 1989. *Actes du colloque. La protection juridique de l'environnement.* Tunis. 368 pp.

World Bank. 1993 Deuxième projet de développement forestier (Tunisia). Washington, DC.

World Bank. 1997. Projet de gestion des ressources naturelles (Tunisia). Washington, DC.