

## **Pan-European initiative on conservation of forest genetic resources: implementation and experiences**

Matyas, Cs.<sup>1</sup> – Koskela, J.<sup>2</sup>

Following an alarming decline of health condition of forest ecosystems across Europe, the demand for Europe-wide cooperation to enhance sustainable forest management and conservation of biodiversity, including forest genetic resources, emerged in the 1980's. Ministerial Conferences on the Protection of Forests in Europe (MCPFE) have been organised since 1990 and served as a major political process promoting sustainability and gene conservation issues. International cooperation has been accelerated by the preparatory process for the UN Conference on Environment and Development in Rio, 1992. In 1994, the European Forest Genetic Resources Programme (EUFORGEN) was set up as an implementation mechanism of the Strasbourg MCPFE Resolution S2 (1990) to promote and coordinate the conservation of forest genetic resources. Pan-European criteria and indicators for sustainable forest management were adopted at the Lisbon MCPFE Conference (1998) which included also genetic criteria and indicators for the first time.

EUFORGEN as an European (not EU!) organisation is managed under the auspices of the International Plant Genetic Resources Institute (IPGRI) in Rome, Italy, in close collaboration with FAO. In total 32 European member countries finance the collaborative programme. The main objectives are:

- implementation of the Strasbourg MCPFE Resolution S2 and promote international collaboration;
- monitoring of progress made;
- dissemination and exchange of information, increasing public awareness;
- development of common initiatives, exchange of genetic material, building of databases etc.

Activities, main tasks and mode of operation are decided by the Steering Committee (formed by national representatives) and implemented by networks with special profile. Up to the present EUFORGEN has been operating separate networks taking into account the differing genetic and ecologic background of species groups (conifers, mediterranean oaks, temperate oaks and beech, poplars, noble hardwoods). Among the outputs of the networks there are Technical Bulletins on *in-* and *ex situ* conservation methodology of selected species (e.g. black poplar, cork oak, Norway spruce etc.), Technical Guidelines for a number of rare, threatened or economically important species, session reports, as well as specific folders, posters etc. to raise public awareness.

Although progress has been achieved in coordinating and synchronizing national activities, promoting public awareness and in developing common methodologies in the past decade, it turned out however that priorities and approach in gene conservation cannot be homogenized easily across the continent.

---

<sup>1</sup>University of West Hungary, and MTA Res. Branch, Hungarian Ac. Sci. Sopron;

<sup>2</sup>EUFORGEN Secretariat, Rome, Italy

Constraints of implementation of uniform principles and practices, and, as a consequence, of sharing responsibilities in long-term conservation of genetic resources, are among others:

- Differences between countries regarding the legal background and procedures of gene conservation;
- Lack of commonly agreed, uniform terminology;
- Limited comparability of data.

Much of the above constraints have ecological reasons while others emerge from national differences in the organization and status of nature conservation and forestry.

Regarding gene conservation of individual species, it is evident, that type of occurrence, kinds of threat, and consequently, necessary measures change drastically by physiogeographic and cultural zones. For example, Mediterranean occurrences of Scots pine are confined to isolated, small pockets usually on mountaintops, threatened by frequent droughts and pasturing. In Central Europe, Scots pine has been planted widely, often outside its natural distribution, regardless of the provenance of reproductive material. On the contrary, boreal occurrences in Scandinavia are still in close to natural state and contiguously cover vast areas. It is impossible and even irrational to formulate uniform conservation measures for the whole distribution area.

In many European countries, ministerial responsibilities for the forestry and nature conservation sectors with regard to conservation of forest genetic resources are not synchronized, the question of joint implementation or coordinated partitioning of tasks unsettled. The liberalization of trade of forest reproductive material across countries of the European Union makes the tracking of forest seed and plant trade difficult. Long term conservation of forest genetic resources demand stricter rules for providing and archiving information on the origin and provenance of reproductive material used at least in genetically sensitive areas.

Because of the mentioned difficulties, relatively few countries in Europe have been able to explicitly include genetic criteria in national regulations and policies on sustainable forest management. Less than one third of countries have specific national programs on conservation of forest genetic resources, and only the half applied up to now genetic requirements in forest management. Some countries have special bodies, usually under the auspices of the Ministry of Agriculture, to deal with conservation of forest genetic resources, where major stakeholders are represented, such as tree breeders, forest owners, State Forest Service etc. (examples are France and Hungary).

In summary, the activities of EUFORGEN have been doubtlessly useful to give support in implementing genetic sustainability in forest management. Legal and administrative difficulties demand however further efforts to achieve better linkage to national forest programs which determine sectoral policy and also allocate resources for implementing. Conservation of forest genetic resources has to become an integral part of sustained forest management and also of nature conservation policy which requires proper regulations and legal arrangement on national level.

**Keywords:** sustained forest management, gene conservation, genetic sustainability