GUEST EDITORIAL

MANAGING FOREST GENETIC RESOURCES FOR PRESENT DAY AND FUTURE BENEFITS

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Forests are the epitome of diversity. In the words of late forest geneticist, Gene Namkoong,

"It is our obligation not to abuse this complex system through ignorance. We must avoid management which would simplify forests to manufacturing factories and, at the same time, we must not attempt to restore or preserve a world that never existed." [1]

Many values derive from forests at the level of ecosystems, species, populations and genes. Forests and forest plantations are used and managed for a wide range of different purposes. They supply vitally important environmental services, such as soil and water conservation and carbon storage, and provide habitats for inumerable species of animals, plants, insects and micro-organisms. Products available from them include various goods provided by trees and other components of the ecosystem, including stems, nuts and fruits, leaves, tannins and resins, dyes and medicines, as well as animal protein and products. Cultural and spiritual values are often attached to forests and forest groves and, importantly, forests also help meet recreation needs of increasingly urbanized human populations.

Genetic variation underpins the continued health and vitality of forest ecosystems and buffers forests against environmental fluctuations and changes. While acknowledging that forest ecosystems are dynamically changing over space and time, it is important to ensure that valuable genetic resources housed in them are not lost or degraded, and that these resources are further developed and utilized in a sustainable manner. The overall goal of conservation should be to help ensure that forest biological diversity, at the various biotic levels on which it occurs, is conserved and managed in support of local and national development, including food security, poverty alleviation, environmental conservation, and economic and social advancement. To achieve this in the short as well as in the longer term, and to promote harmonization of action between various economic sectors, genetic management must be integrated in broader development plans, such as poverty reduction strategies and national forest programmes. Collaboration at regional, subregional, eco-regional and global levels, which builds on national priorities and programmes, will help ensure that forest biological diversity and genetic resources programmes of individual countries are compatible, complementary and mutually supportive.

Multiple use management of natural forests for productive and protective purposes is today a common rule. It is increasingly widely acknowledged that the conservation of genetic resources and the utilization of natural and planted forests for specific productive purposes are, when forests are adequately managed, not antagonistic Thus, in targeting conservation action, there is a need to focus on the issue of *how* to manage forest ecosystems and genetic resources, rather then *whether* to manage them. It should be acknowledged, however, that management interventions, which may range from highly intensive genetic and silvicultural management to non-intervention, while being based on overall national and local priorities, will have varying effects on different social and economic activities. To ensure broadly based support and thus sustainability of action over

[1]Adapted from Namkoong, G. 2001. Forest genetics: patterns and complexity. *Canadian Journal of Forest Research* 31: 623–632. http://pubs.nrc-cnrc.gc.ca/cgi-bin/rp/rp2_abst_e?cjfr_x00-166_31_ns_nf_cjfr

time, genuine efforts are needed to meet the needs and aspirations of the fullest possible range of interested parties. This underlines the necessity of transparency and wide stakeholder participation in all stages of planning and implementation.

To respond adequately to new challenges and increasingly varied needs in conservation and genetic management, dynamic development of concerned institutions is necessary. This will include reinforced efforts in training and research at both national and local levels. There is also an urgent need to further sensitize policy-makers, the public and local populations to the needs, responsibilities and benefits of action through clear demonstration of the advantages of genetic management and the consequences of loss or neglect. To be sustainable, conservation of forest biological diversity and the wise management of forest genetic resources must be conceived by all those concerned or affected as a means to increase human well-being, not as a limiting factor for development.

Christel Palmberg-Lerche has more than 35 years of professional experience in forestry and forest genetic resources related activities. She served for almost 20 years as Chief of the Forest Resources Development Service of the Forest Resources Division in FAO Rome, and prior to that as FAO Forestry Officer, Forest Genetic Resources for some 10 years. She has also lived and worked in these fields in Australia and her native Finland.