

CHRONICLE

COST E 27 PROFOR "Protected Forest Areas in Europe – Analysis and Harmonization" in Lithuania

The COST (European Cooperation in the field of Scientific and Technical Research) or by official decoding "COST is the abbreviation for 'Coopération européenne dans le domaine de la recherche scientifique et technique' ". COST as an intergovernmental framework and technical co-operation enabling European countries to coordinate their national programmes on the European level. The main objective of the COST is to ensure a substantial position of Europe in research increasing cooperation and interaction between different countries. Promotion of international collaboration and globalisation of science and technology are cornerstones of the recent COST bringing together international researchers in a wide range of topics. COST is grounded on the non-competitive research, solution of an environmental and cross-border problems and problems of the public utility.

The main decision-making body in COST, the Committee of Senior Officials (CSO) made the decision due to COST Action E27 PROFOR on 15th December 2000. The entry into force of the Action was on the 28th March 2001. E27 will last by the 28th February 2006. 21 European countries such as Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal Slovenia, Spain, Sweden and United Kingdom have signed this action.

Lithuania signed the Action E27 on 26th September 2001. The Lithuanian Forest Research Institute is positively sharing in the COST E Actions including COST Action E27 "PROFOR". It would be noticed that the evolution of Lithuanian PFA's system has a deep historical beginning and the expressive genius, which depends on changes of the statehood and particularity of the PFA's selection.

Lithuania is comparatively rich in forest resources, and during the past 50 years, forest cover has increased. Presently, 31.2% of the territory is covered by forest stands (*Lithuanian State Forest Registration*, 2002). That is one of the lowest indices in Baltic States and among Central and Eastern Europe countries and just slightly higher than average European forest covers. The share of total forest area is slightly higher as not all forest areas are permanently covered by stands. Lithuania's optimum forest coverage

should be from 33% to 35%. In the future, part of the land not suitable for farming is likely to be afforested, and within a few decades the country's forest coverage should reach the mentioned 33%. The Law on Forests stipulates the afforestation of cleared spaces within two years. About 25% felled forest area is left for natural regeneration. Over time, the primarily mixed forest ecosystem, having both coniferous and deciduous trees, has changed due to human influence.

The main zonal type of the vegetation is the coniferous and broadleaved mixed forests from the quite rich communities of the nemoral vegetation to typical south taiga complex. There are some specific features of the Lithuanian forests formed from the ancient times. Forests have changed from the *Lycopodiophyta*, *Gymnospermae* including *Pinus succinifera*, *Sequoiadendron giganteum* (Lindl.) J.Buchholz etc, in Tertiary in the Per-Quaternary Forests (before 210 -1.5 mln. years) over the forest phases of the Quaternary such as tundra and forest tundra, late forest tundra (8 thousand BC), *Betulo-Pinetum* (8-3.6 thousand BC), *Tilia-Carpinetum-Quercetum-Alnetum* (6 thousand BC) *Aegopodio-Piceetum* (4-1.5 thousand BC). Sub-boreal *Lonicera* spp. forest (1.5 thousand BC, span of 500 years) till nowadays. During the Iron Age (at the end of 2 thousand years BC), when the climate has become pluvous and summer has cooled down, *Tilio-Carpinetum* had spread on the territory of southwest Lithuania while spruce forests spread in the Zemaitija (Samogitia) Upland, northeast, east and other districts, and pine on the sandy soils, hard deciduous species on the Aukstaitija Upland.

It should be noted that the existence of forests had suffered the human influence in this time because of the expansion of the farmland and cultivated agriculture. The soft deciduous species spread as a result of the human activity. The larch forests have grown after the glacial period, disappearing in length of time and have been replanted in XIX (one of the well-known is 440 ha of the most productive and protected stand has remained). The small patches of *Tilio-Carpinetum betuli* remain in southwest Lithuania, and the floral complex of the thermophilous pine forests *Cladonio-Pinetum* stretch in south Lithuania. Nowadays, the semi-natural forests prevail on the territory

of Lithuania and some natural forest patches remain in the different larger forest complex coast-to-coast. Pine, spruce and birch are the most dominant species in the region. Together they cover approximately 85-95% of the forested area. Conifer stands account for major share from 11,145 ha (60.6%) in 2000 to 11,581 (59.8%) in 2002, and the area covered by soft and hard deciduous stands makes up 34.7% and 4.7% respectively. Since ancient times primeval forests had not remained excluding single trees. The forest cover decreased from 56% in 1000 up to 30-35 % in 1392-1430, and increased up to 44% in the XVI-XVII centuries because of the Sweden War. The forest decreased due to further development of the rural and urban area as well as political governance from 1795 after Lithuania had been involved into the Russian Empire. Especially selected pine and spruce state forests were felled for the shipping.

The initial notions of nature protection have formed mostly because of the influence of nature praying. The ancient faith and awareness of the forest guard function helped to protect forests. There are profound traditions to protect nature resources including forest in Lithuania. Plenty of archaeological findings, metrics, and folklore proclaim the honour-founded relations of the ancient Lithuanian people with nature. In the deep historical times the terms as *saint tree*, *saint forest* underlined that mentioned objects were protected and untouchable. The course of establishing, managing, changes of proprietary rights and relations, rights and obligations are recorded from the Middle Ages in the legal acts of the State of Lithuania. Some of them were valid after Lithuania had lost its statehood in the XVIII-XIX centuries. In the IX-XII centuries Dukes owned lands and forests, and Lithuanian Grand Dukes gave forests and lands as an award to nobility. Forests brought through to win the fighting action over the enemy (1236 and later). In 1379, the Lithuanian-Teutonic Treat has forbidden the damage to the borderline forests. In 1398 the *Salynas Treat* mentioned the *saint place* near the Nevėžis River where the hunting, forest felling and even walking was prohibited without special permission. The nobility ruled the right to use or protect forests. In XV, the Lithuanian Grand Duke has chartered townspeople to use forests around the town for the pastures, however, provided they left hollow trees alone.

At the later time of Medieval the first reserves for big game animals were established *i.e.* in 1541 the reserve for the European Bison *Bison bonasus* (L.). In 1559 all king forests were inventoried by order of the King. The king forests were surveyed also later. In 1588, the order of the use of forest resources was indicated in the *Valakai Law*. In 1588, rights and obligations as

well as fines for the breach of use of the nature resources were said in the *Lithuanian Statute* (Gudavičius, Lazutka 1983, 1985; Valikonytė, Lazutka & Gudavičius 2001; *Lith. Statutes*, 2002). In 1613 the coloured printed forest map appeared (Ed. M.K. Radvila, text by T. Makovskis). Prof. Zhiliberas Zh. E. had prepared first geobotanical map including forests. In 1847, the separate areas for the game protection were established in the southwestern part of Lithuania. However, the large forests were reduced and fragmented considerably under Russian Empire regime. The establishing of protected areas continued in independent Lithuania. From 1937, Žuvintas, Kiauneliškis, Kamša nature reserves were established. After the Second World War this process was revived. The order of the establishing and managing of protected forest areas was assigned by former legal acts of the Soviet Union. Because of the particularity of possession of the protected forest areas there was not deal with problem on proprietary rights. The background of the system of protected forests had been established and the network of PFA was expanded mainly prior to recovery of the independence of Lithuania. The Nature Framework was established integrating the protected areas. The main goal was to warrant the sustainability of the landscape, create the integral system of the natural compensation, which was validated by the legal acts. After the independence had been gained, the main attention was paid to the protected areas of the protective and complex direction. The system of the protected areas is substantiated on principles of the conservation of natural and cultural heritage, biodiversity and gene pool, the maintaining of the ecological balance, the regeneration and conservation of natural resources. The order of the establishing, management is assigned by the legal acts that are coordinated with the general international conventions and other environmental acts. The problems for the proprietary rights became a topical issue because of the change in the purpose of the forestland within the process of the restitution and privatisation. The responsible organizations are involved into the process of searching for the solution. The network of the protected forests based on the functional, regional, technological, communicative and coordination networks. Definitions related to the protected forests are specific and different from the concepts used in different European countries.

The further comprehensive analysis and coordination are necessary in Lithuania and other European countries. That is precisely that the main goal of the COST E27 is to harmonise the wide-range of Protected Forest Area categories used in European countries within the context of existing international systems of

protected areas. The scientific programme covers definitions, national classifications, historical and legal background of PFA, analysis of options for the integration of data collected in the national forest inventories forwarding to the harmonization of definitions and reporting processes to international sources. The Management Committee of the Action has elected the Chairman (Dr Georg Frank, FBVA, Wien, Austria) and Vice-Chairman (Dr Jari Parviainen, Finnish Forest Research Institute, Joensuu Research Centre, Finland) at the first meeting of the Management Committee in Brussels, Belgium (March 1, 2002). The member-countries had established three Working Groups and Short Term Scientific Missions. Working Group I is responsible for the description of the historical background that has led to the development of each national Protected Forest Area frameworks and analysis of the European PFA (Coordinator Dr. Jim Latham, Countryside Council for Wales, UK) including issues on the general description of the country, responsible bodies for the forest management, bio-geographical information, legislation background, history of PFA and forest management, main types of PFA, responsible organizations and procedures, selection criteria and representativity of PFA, inventories, monitoring, spatial relationships, and future developments. Working Group 2 is responsible for the issue of the harmonization and improvement of information on the European Protected Forest Areas (Co-coordinator: Dr Kris Vandekerckhove, Institute for Forestry and Game Management, Belgium) including the clarifying and presenting options to harmonize terms of Protected Forest Areas linking to the IUCN international system of PFA's management categories as well as the use of the UN-ECE Timber Committee "Temperate and Boreal Forest Resources Assessment TBFRA, MCPFE, COST E4 and other international classifications of a forest and other wooded land with focus on PFA, and the analysing of the current procedures for the reporting to international organizations and procedures for these areas, and identifying of problem areas. Working Group 3 has been established and is responsible for the clearing house mechanism for European Protected Forest Areas (Co-ordinator: Dr Andreas Schuck, German Management Committee, European Forest Institute, Finland) including the creation of a communication platform and a web page for information on bibliography and terminological terms as well as the standardisation of data collection.

Protected forest areas are of a great importance at the national, European and international level. These areas are of a high scientific, recreational, cultural and educational value, and direct activities to the conservation of species and genetic diversity, fulfilling the

specific functions such as protection of a catchments' area or erosion control. Protected forest areas become a significant issue in the forest policy. The development of international consideration on the forest policy over the environmental impacts of plantation forestry as well as the developments in forest-product certification induced increased significance of the mentioned issue. The Memorandum of Understanding emphasized that categories and classification systems of the protected forest areas, or PFA, are quite different both at the national and international level.

The unique environmental and cultural circumstances of the each country including Lithuania have formed the different standpoint on the object for protection, as well as there are different priorities and policy. These differences impede the coordination and precise interpretation of the data obtained from national level, as well as it is difficult to compare the data of forest inventories. The PFA's system is developed well, and protected areas constitute 11.5% of the total area in Lithuania. However, the forest area under regime of strict nature reserves is only 1%. This area does not sufficiently warrant the conservation of diversity of all forest systems and is insufficient to represent the forest distribution and diversity of forest site types. There is lack of urgent gaps of information on PFA and consistency between countries in the interpretation of the terms "protected" or "unprotected" that tend to be imprecise. That emerged from international initiatives and collection process on protected areas. Because the approaches to classifications differ under national requirements and local conditions the establishing of a clear overview of national approaches to classification becomes an important principle of the common consideration of PFA. The knowledge of national and international differences is important in the Pan-European an international efforts to map, classify, collect and disseminate information on protected forest areas. The Ministerial Conference on the Protection of Forest in Europe has addressed needs on PFA issue in Helsinki and Lisbon Ministerial Conferences and noted "the need to further clarify the concept of Protected Forest Areas and to find precise definitions" (<http://www.minconf-forests.net/>). The background of COST Action E27 encompasses two important themes such as forest policy processes and networks including the Ministerial Conference on the Protected Areas MCPFE, Intergovernmental Forum on Forests IFF, Natura 2000, and the UNEP-World Conservation Monitoring Centre, and initiatives for the classification and research including the International Union for the Conservation of Nature IUCN, Temperate and Boreal Forest Resources Assessment 2000 TBFRA as well as previous COST Action E4 "Forest

Reserves Research network". The Action enhances the quality and clarity of information at both national and international level. The mentioned main goal is pursued by the compiling of information on the historical background and restrictions applied to different national PFA's classifications, their legal status, management, tentative description of the economic value; by analysing PFA's status and feasible options for the integration of the national data of forest inventories, and by the seeking the options for the harmonization of national data and definitions on PFA's within collection process of the international data.

Thus, the fulfilling of the Action will allow to determine the historical background, legal status, management, economic values and to analyse PFA's sta-

tus in Europe, to compare the main definitions and data collection processes and to offer suggestions on the inclusion of the data collection of PFA's into the national forest inventories. The records of the activities carried out by the Working Groups and records of both Groups are posted at the Acción E27 website. This site is available on the Internet since September 2002. The project website facilitates the communication between the members of the Action. It serves as a management and dissemination tool (<http://www.efi.fi/projects/coste27/>).

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