



SUMMARY AND CONCLUSIONS OF THE EVALUATION REPORT

METSO Forest Biodiversity Programme for Southern Finland

The METSO Programme for 2002–2007 was drawn up by the widely based METSO Committee, as a programme of action subsequently adopted by the Finnish Government. One of the programme's 17 sub-programmes covered the monitoring and evaluation of the whole programme. This final monitoring and evaluation report examines how the measures within the whole programme have been implemented, and assesses their ecological, economic and socio-cultural impacts. This evaluation will be used when decisions are made during 2007 to outline future measures to safeguard forest biodiversity.

The METSO Programme stresses that research data should be exploited in evaluating the programme and developing future measures to safeguard biodiversity, as stipulated in the recommendations of the METSO Committee and the Government decision. The METSO programme also included research programmes whose results have been compiled in a major report to support this evaluation. The METSO Programme has enabled researchers, decision-makers and other stakeholders to meet many times to discuss important issues. This co-operation and the resultant new knowledge base will allow future efforts to safeguard biodiversity to be planned and implemented with due consideration given to all interests.

Ecological, economic and socio-cultural impacts

Data has been collected for the purposes of monitoring and evaluation from ecological surveys, questionnaires, public discussions, interviews, official statistics and project reports. Since many impacts will only become evident after a long time lag, or after measures are expanded to cover the whole country, the evaluators have also had to rely on research results and expert assessments. The recent research data used in this evaluation has been compiled in a special research report entitled *METSO:n jäljillä*. Measures have generally been implemented as set out in the METSO Programme approved by the Government. Where some of the sub-programmes are still continuing, the current situation and the need for future monitoring are assessed.

The network of forests under some form of protection in Southern Finland (including commercially managed forests where nature management methods are used, as well as protected areas as such) can be considerably extended into privately owned forests thanks to measures within the METSO Programme. But it remains clear that a representative network of protected forests can only be built up with involvement from all types of forest-owners, particularly including the State, municipalities, forest industry companies and other major owners. In future comprehensive assessment of the opportunities to form extensive areas of forest and connected habitats consisting of areas under different ownership is needed, including protected areas and forests managed using nature management methods. According to the evaluation report, further forest protection in Finland should primarily be done by applying voluntary measures in privately owned forests. The METSO Programme has successfully created a new approach with regard to forest conservation, and expanded the variety of tools available for safeguarding forest biodiversity.



Principal results of monitoring and evaluation

- The forest sites now protected through METSO's voluntary measures generally have high ecological values
- The voluntary measures used in the METSO Programme have gained widespread acceptance
- Both temporary and permanent schemes of voluntary conservation should be further developed and targeted
- The biological criteria used to select sites for voluntary conservation and regional objectives should be developed
- The small sizes of many protected areas and their geographical separation are a problem, especially for many threatened species
- A comprehensive assessment is needed to facilitate the establishment of a more extensive and interlinked network of protected areas
- The application of nature management methods in commercially managed forests benefits species diversity
- More extension and financial support is needed to promote controlled burning and ecologically beneficial preservation of retention trees
- Multiple-objective forest planning can improve ecological impacts cost-effectively in forests of every ownership type
- Economic incentives are needed to promote extension on biodiversity and multiple-objective forest planning
- The current level of forest conservation in the METSO region has only had a minor impact on the national economy. An increase of a few percent in the total area under protection in the METSO region would similarly only have minimal macroeconomic impacts
- New conservation measures worth developing can be created within local networks, but these models may not be directly applicable elsewhere
- To gain general acceptability of forest protection, it is important to consider local social and economic impacts of protection actions
- Close collaboration between forestry and environmental organisations is necessary whenever new measures are to be widely adopted
- Building up co-operation networks and new cultures of voluntary action takes up time and resources

Need for a new programme of action and funding

Research has shown that current measures to safeguard forest biodiversity are not sufficient to preserve species and biotopes. The network of protected forests should be expanded and otherwise improved. Social and economic impacts should be considered at different spatial levels, in addition to ecological objectives. It is crucial to apply a flexible range of means of protection according to local circumstances, so as to promote local co-operation and new measures across the country.

The expansion of the METSO Programme beyond its present geographical scope in Southern Finland is justifiable in terms of the equal treatment of landowners, as well as the preservation of ecologically valuable sites. In order to safeguard various biotopes and species groups, conservation networks designated to preserve specific habitat types will be needed, as well as measures to preserve ecologically valuable structural features in commercially managed forests. Many of the sites included in conservation programmes, privately owned protected areas, sites protected under the Forest Act and sites covered by



pilot projects within the METSO Programme are small in size. Even within protected areas, ecologically valuable biotopes may be separated from other sites with similar habitat. Particularly with regard to safeguarding the biodiversity of old natural heathland forests with plenty of decaying wood that are important for many of the threatened species, it is important to build up extensive conservation networks of interlinked protected forest habitats. Existing protected areas may serve as the cores of such networks, with steps taken in nearby forests to safeguard biodiversity through voluntary measures in privately owned forests and various means in State-owned lands.

National and regional priorities must be duly considered when the ecological objectives are defined for such conservation networks. Very little consideration has so far been given within the METSO region to such regional factors and systematic landscape ecological planning at a scale greater than forest ownership boundaries. The 'ecosystem approach', which comprehensively examines natural processes and resource use practices with respect to local needs, can greatly facilitate the effective establishment of such conservation networks. In planning conservation networks, more attention should in future be given to the need to preserve genetic diversity within species, since this may considerably improve the prospects for the preservation of their populations, particularly considering the possible impacts of climate change. Setting up conservation networks requires both the short-term prioritisation of needs and sites (through programme of action lasting 5–10 years), and longer-term goal-oriented planning (with a timeframe of more than 50 years). The objective of halting the ongoing decline in biodiversity can only be achieved and verified over a longer timeframe than a single programme period.

There is clearly a need for a new wide-ranging, goal-oriented programme of action and funding designed to better safeguard forest biodiversity. Crucial factors include the provision of adequate funding and human resources for the whole programme period, the programme's ecological purposefulness, and its social acceptability.

Funding mechanisms and other forms of support for promoting biodiversity should be developed for different groups of forest-owners. Smaller-scale forest-owners should also be able to receive advice and support for their efforts to safeguard biodiversity. Co-operation between administrative sectors on biodiversity issues should be intensified. Traditional agricultural habitats, for instance, can only be safeguarded through closer collaboration between the agricultural, forestry and environmental sectors.

Important points to consider in drawing up a new programme of action and funding

- Different species and species groups are dependent on different biotopes and structural features of forests, and the areas that must be protected to preserve them may be of differing sizes
- In the METSO region there are evidently very few extensive (>100 ha) intact areas of forest habitat of high ecological value (according to conservation biological criteria) outside existing protected areas
- Establishing functional conservation networks will have to involve the adoption of nature management methods in commercially managed forests, forest habitat restoration work, and measures to conserve sites that only partly fulfil biological conservation criteria, as well as the designation of new protected areas
- If conservation measures are not carried out urgently, many threatened and declining species could vanish
- Protection of the habitat of many species and threatened biotopes requires active management



- The levels of funding and human resources available for the purposes of conserving forest biodiversity are limited

Recommendations for a new programme of action and funding

- National and regional conservation objectives should be defined
- An extensive ecologically defined conservation network should be established
- The need to safeguard each area's characteristic biotopes and species should be prioritised
- The geographical scope of the voluntary conservation measures tested in the METSO Programme should be extended to cover the whole of Finland
- Habitats and threatened biotopes that fulfil conservation biological criteria should be surveyed, preserved and in some cases managed, and they should become more interlinked
- Voluntary measures should be exploited to conserve and extend valuable habitats and sites with high species diversity
- Co-operation networks should be set up to promote biodiversity at regional level
- The ecosystem approach should be applied to harmonise the different uses of forests at the regional level, considering factors including the need to safeguard biodiversity, requirements of river basin planning landscape management, timber production, the use of wood energy, recreational activities, hunting, game management, the picking of wild berries and mushrooms, nature tourism, and the promotion of cultural values and social sustainability
- Genetic biodiversity should also be considered when conservation networks are built up

Crucial factors for the programme's success

- ecological purposefulness
- the social acceptability of the programme's objectives and implementation
- wide-ranging contributions from experts in different fields during preparation
- adequate funding
- the availability of human resources, and wide-ranging co-operation
- adequate knowledge base (research, training and extension)
- the commitment of both forestry and environmental professionals to the programme's objectives
- wide publicity for the programme's bases and measures
- increased awareness of biodiversity issues among forest owners and other citizens
- flexible implementation of the programme based on learning, adequate monitoring, and research
- the launching of a new multi-disciplinary research programme to provide information to facilitate the implementation of the programme's measures

A wide range of measures for flexible application

Temporary and permanent conservation measures that involve voluntary commitments from forest owners should be more widely applied as part of future efforts to safeguard forest biodiversity. It may be difficult, however, to ensure that such voluntary measures are extended both to cover a wider range of habitats, and to build up more extensive conservation networks. Short temporary agreements are more suitable for conserving sites that require active management and whose natural values may change over time; whereas long-term or permanent agreements can be applied where biodiversity values are permanent or only evolve slowly.



Nature management methods and habitat restoration measures can help to accelerate and maintain natural trends in sites with high biodiversity values, and also establish ecological links between separate areas. Where the planning of nature management practices can be improved, and sufficient funds are available, the preservation of forest biodiversity can be effectively combined with the multiple use of forests of all ownership types, including privately owned forests. In State-owned forests the sites with high species- and biotope diversity can be expanded through purposeful natural resource planning and by expanding existing protected areas.

Improvements needed in voluntary conservation measures and the nature management methods used in commercially managed forests

- shorter-term temporary means that can be selectively applied where they will be most beneficial, e.g. to conserve burnt areas of forest, stands of mature broad-leaved trees, biotopes requiring management, and occurrences of threatened species requiring monitoring and management
- to establish nature management areas and to develop mechanisms to support these areas (including recommendations on sparing exceptionally tall trees, promoting the valuable structural features of forests, creating concentrations of decaying wood, planting broad-leaved trees to promote biodiversity, establishing herb-rich woodlands, saving naturally damaged areas)
- improvements in the planning, habitat restoration work, and natural forest management methods applied in commercially managed forests and protected areas – including support for the application of favourable methods and the related entrepreneurship
- long-term and permanent conservation agreements to safeguard permanent or slowly evolving biodiversity values such as heathland forests with plenty of decaying wood, hydrologically coherent mire complexes and their margins, forest habitats requiring long-term restoration, forests in an approximately natural state, and forests in early stages of the natural ecological succession with plenty of decaying wood
- the flexible use of various measures to expand concentrations of high species diversity and valuable biotopes
- inventories of suitable sites for conservation and nature management, and the improved marketing of voluntary conservation measures as part of forestry planning and advice
- the integration of an effective system of incentives to promote voluntary measures into forestry planning
- hiring of experts on regional biodiversity to work on site selection and negotiations on voluntary agreements
- the careful consideration of ecological values in the pricing of sites (ecologically valuable sites are not necessarily valuable in terms of their timber production potential)
- intensified collaboration and exchange of information between forestry and environmental organisations, including the harmonisation of databases
- simplification of the range of conservation measures through administrative and legislative changes
- improved systematic economic incentives designed to support the preservation of biodiversity (including conservation foundations, inheritance taxation, forest taxation, targeted public subsidies, EU funding)
- the co-ordination of projects focussing on rural development, recreational land uses, landscape management and game management and their various forms of support, so as to ensure that their objectives also help to preserve biodiversity