

## **GOVERNMENT RESOLUTION ON THE FOREST BIODIVERSITY PROGRAMME FOR SOUTHERN FINLAND 2008-2016 (METSU)**

### **RESOLUTION**

Today, on 27 March 2008, the Finnish Government has issued a resolution, based on a proposal by the Ministry of the Environment and duly prepared by the Cabinet Committee on Economic Policy and the Cabinet Finance Committee, for a new Forest Biodiversity Programme for Southern Finland for the period 2008–2016 (henceforth referred to as the METSU Programme).

The proposed programme was discussed by the Cabinet Committee on Economic Policy on 13 February 2008 and 5 March 2008. The Government decided on 13 March 2008 on funding for the programme over the budget framework period 2009-2012. Funds budgeted for 2008, budget frameworks resolved in 2007 and a framework decision made on 13 March 2008 will together enable the new METSU Programme to be launched with a budget appropriation totalling more than 180 million euros.

### **BACKGROUND**

The METSU Programme aims to halt the ongoing decline in forest biotopes and species and establish stable favourable trends in forest biodiversity by 2016. This is to be achieved by:

- improving Finland's network of protected areas;
- continuing and enhancing the application of habitat management methods in commercially managed forests;
- improving the knowledge base to facilitate the evaluation and development of measures; and
- collaboration between forest and environmental organisations, advice given to forest owners, training of professional foresters, and related communications work.

The METSU Programme will be implemented through ecologically effective, voluntary and cost-effective means. The implementation of the programme may not endanger or delay the completion of other previously initiated nature conservation programmes.

The new METSU Programme has been drafted on the basis of experiences gained during the implementation of the programme's pilot phase over the years 2002-2007. Based on the outcome of the pilot phase, the Government believes that the objectives defined to safeguard forest biodiversity can be reached in a socially acceptable manner through means applied in the METSU Programme.

### **THE METSU PROGRAMME**

#### **1 Ecological site selection criteria**

A set of ecological site selection criteria is to be drafted for the METSO Programme to ensure that measures are carried out as cost-effectively as possible and in the most appropriate way to safeguard forest biodiversity. These criteria are to be used to support decisions made to conserve biodiversity in both protected areas and commercially managed forests, but they are not intended to be applied as rigid rules. They cover the most important habitats and structural features in Finland's forests in terms of biodiversity. Another important selection criterion is the proximity of potential sites to the current network of protected areas. In the regional allocation of measures consideration may also be given to impacts on economic activities, recreation, tourism and cultural values.

Significant wooded habitats for biodiversity include:

- *Herb-rich forests*
- *Heathland forests with plenty of decaying wood*
- *Forests adjacent to springs and pools*
- *Wooded mires and the wooded margins of open mires*
- *Swampy woodlands and wooded flood meadows*
- *Sunlit slopes on sandy esker ridges*
- *Biodiversity sites along emergent coastlines*
- *Wooded traditional biotopes*
- *Wooded habitats on calcium-rich bedrock and ultra-alkaline soil*
- *Wooded cliffs, boulder fields and other rocky areas important for biodiversity*

Particularly significant structural features, ecological trends and other habitat features:

- *Decaying wood: decayed fallen trees, dead standing trees, stumps, snags, trees with holes, windthrows*
- *Large, old deciduous trees: aspens, birches, goat willows, rowans*
- *Trees of southern broad-leaved species*
- *Burnt wood from large trees*
- *Features associated with herb-rich woodland, spruce mires, springs, high moisture levels, swampy terrain and fens*
- *Influence of groundwater or calcium, or nutrient-rich bedrock*
- *Natural or easily restorable hydrological conditions*
- *Diversity of tree species and ages, openness of the canopy layer*

**The Government calls upon:**

*the Ministry of the Environment to set up a working group which together with stakeholders shall finalise, during 2008, a list of ecological site selection criteria to serve as practical instructions and prepare regional priorities for these.*

*the Ministry of the Environment and Ministry of Agriculture and Forestry to draft habitat-specific implementation programmes, to set implementation targets for regional environment centres and forestry centres, and to monitor their implementation.*

## **2 Restoration and management of habitats in protected areas**

Habitat restoration and management work is carried out in protected areas to safeguard and increase their biodiversity. Restoration work is mainly carried out in forests and mires, usually as one-off measures. Habitat management work is conducted at regular intervals in, for example, herb-rich forests, stands of southern deciduous tree species, habitats of certain threatened species (e.g. white-backed woodpecker) and sunlit esker slopes. Wooded traditional biotopes are managed continuously.

Estimates made by Metsähallitus indicate that forest and wooded mire habitats in State-owned protected areas with a total area of 12,000 hectares require restoration measures. Besides this, wooded traditional biotopes with a total area of approximately 1,000 ha and other sites amounting to 2,500 ha call for management measures. The total costs of implementing these measures during the programme period 2008-2016 have been estimated at €7.2M, €4.9M and €7.6M, respectively.

In privately owned protected areas forest and wooded mire habitats with a total area of 4,800 ha are in need of restoration. Every year 670 ha of wooded traditional biotopes need to be managed, and a further 2,400 ha of other habitats require natural management, including many herb-rich woodlands. The estimated total costs of such work during the programme period 2008-2016 amount to €5.6M, €0.5M and €7.3M, respectively.

It is estimated that new protected areas still to be established include 10,000-20,000 ha of areas requiring habitat restoration or management.

### **The Government calls upon:**

*Metsähallitus to manage and restore natural habitats in existing and new protected areas, where such measures will clearly improve the prospects for the conservation of biodiversity.*

*Metsähallitus to draw up national guidelines and models to encourage further cost-effective implementation of habitat restoration work, organise the related monitoring, and ensure risk management.*

## **3 Enhancing Finland's network of protected areas**

The measures for safeguarding forest biodiversity funded under the Nature Conservation Act (1096/1996) aim to protect sites permanently or indefinitely so as to preserve or increase their permanent or slowly evolving natural values. Sites will be chosen for such protection using the ecological criteria listed in chapter 1. Such sites may be protected in practice by establishing permanent or temporary private nature reserves, or by selling them to the State to be designated as protected areas. Forest owners will be fully compensated for the costs of such measures and any consequent loss of income.

The exact method of implementation will be selected so as to combine in the best way the objectives of safeguarding natural values, respect for landowners' views of how their land should

be managed, and the prudent use of public funds. If protection is only agreed on a temporary basis, landowners will be free to decide how to use their property again after the end of the agreed period. Proposals for the establishment of such protected areas may be made by all forest owners except the State.

The State is a significant forest owner in the vicinity of some of the current protected areas that are the most significant for forest biodiversity. In such areas the network of protected areas should be extended by protecting further suitable State-owned lands selected on a case by case basis. The transfer of such areas from commercial use to the public administrative duties will be carried out by making the necessary changes in Metsähallitus's balance sheet in accordance with the State Enterprise Act.

**The Government aims that:**

*a total of 96,000 ha of areas voluntarily offered by landowners shall be established as private nature reserves or acquired by the State by 2016.*

*Metsähallitus's Natural Heritage Services and Forestry shall jointly draft proposals for the extension of protected areas of significance for biodiversity in State-owned lands by a total area of 10,000 ha over the period 2008-2010, in connection with natural resource planning processes.*

## **4 Safeguarding biodiversity in privately-owned forests**

### **4.1 Habitat management plans**

Private forest owners are setting increasingly wide-ranging objectives for the management of their forests. This means that the scope of forestry plans for the forest holdings must also be expanded. One new option is for plans to emphasise the biodiversity objectives set out in the METSO Programme. Such habitat management plans drafted at the request of forest owners aim to harmonise other uses of forests with the safeguarding of their biodiversity.

Habitat management plans seek to identify any sites within the holdings that meet the ecological site selection criteria. They also include proposals for habitat management work to be carried out in addition to conventional forestry measures and loggings in commercially managed forests. In all measures for safeguarding forest biodiversity presented in the METSO Programme the sites must be identified in the field, and the measures necessary for their management must be specified.

**The Government calls upon:**

*the Ministry of Agriculture and Forestry to develop models for holding-specific habitat management planning together with incentives to encourage the wider use of such plans.*

### **4.2 Subsidies for natural values in commercially managed forests**

The measures to be funded under the Act on the Financing of Sustainable Forestry (1094/1996) aim to safeguard natural values in smaller sites that require specific forms of management, in sites where natural values are changing, and in sites where they may be preserved alongside forestry measures. Such means may be applied in forests under private or joint ownership. Forest owners will be fully compensated for the costs of any such measures and any losses of income. The ownership of such sites will not change. Funding under the Act on the Financing of Sustainable Forestry can be used for natural value contracts and habitat management projects.

#### *Environmental and natural value support*

Environmental support for forestry available under the Act on the Financing of Sustainable Forestry is used to compensate forest owners for any significant additional costs or losses incurred in relation to the preservation of biodiversity or habitats of special importance, or any other habitat management work. Environmental support is primarily intended to preserving the characteristic features of the habitats of special importance defined in section 10 of the Forest Act. Within the available financial frameworks, environmental support may also be used for other sites. Sites covered by environmental support must be excluded from conventional measures used in commercially managed forests, but habitat management work may be carried out. When such agreements expire, sites may again be used according to forest owners' wishes.

The natural values trading piloted in the first phase of the METSO Programme broadly resembles the environmental support paid under the Act on the Financing of Sustainable Forestry, but the sites concerned were established according to the programme's ecological criteria, and thus the scheme was wider in scope. The pilot programme indicated that forest owners were willing to preserve biodiversity more widely than was possible under the provisions of the Act on the Financing of Sustainable Forestry. The goal now must be to enable support for natural values from public funds through administrative procedures that are as simple as possible.

Agreements made between forest owners and the State, obliging forest owners, in return for compensation, to maintain or increase natural values more widely than would otherwise be legally necessary in forest holdings that meet the relevant ecological site selection criteria, provide a model through which the environmental support under the Act on the Financing of Sustainable Forestry (544/2007) can be changed in response to experiences obtained during the pilot project.

#### *Habitat management projects*

Forest habitat management projects may also be undertaken jointly by the owners of several holdings. Larger entities provide good opportunities for planning and implementing restoration and management work for ecologically valuable habitats extending across several holdings. This may involve creating sequences of decaying wood or burnt forest habitats, or undertaking restoration work in forests that are important for recreational use of commercial forests, or measures designed to improve the habitats of game species.

Undertaking habitat management projects involving several holdings entails collaboration between the forest owners. The initiation of such projects must be preceded by planning, with due consideration for the commercial use of the area concerned, as well as the management of natural

values. This can help to create a good basis for various types of collaboration in commercial forestry and habitat management work within the area concerned.

**The Government aims that:**

*the total area of sites where biodiversity is safeguarded in privately owned forests should be increased by 82,000-173,000 hectares by 2016. These sites include 400-800 habitat management projects.*

*the Ministry of Agriculture and Forestry should assess during 2008 the need to amend the Act on the Financing of Sustainable Forestry to meet the needs of the METSO Programme, and consider whether compensation could also be paid to cover any costs incurred due to the measures described above in forests that are not under private ownership.*

**4.3 Need for changes in forest legislation**

According to the Forest Insect and Fungi Damage Prevention Act (263/1991), damaged coniferous trees must be removed from forests where their number is so high that they may cause the spread of harmful pests. When more than 10% of the number of trees in a hectare are damaged, or where there is at least one cluster of more than twenty damaged coniferous trees, the trees must be removed from the forest or other measures must be taken to prevent the spread of pests. Decaying wood is, however, a vital structural feature for forests biodiversity, and dead trees should be left in place especially in habitats of special importance defined in the Forest Act.

There are problems in identifying and delimiting habitats of special importance defined in the Forest Act, however. Owing to their abundance, the law does not require marking them out in the field, as is done for biotopes protected under the Nature Conservation Act. But the identification and delimiting of such sites is still necessary if their vital features are to be preserved during forestry actions. This calls for the smooth flow of information between forest owners and persons carrying out forestry measures and felling, especially when work in the forest is done during the winter. The most problematic habitat features to safeguard include patches of herb-rich woodland, and springs and streams and their immediate surroundings.

**The Government calls upon:**

*the Ministry of Agriculture and Forestry to reassess, based on research findings, the legislation on preventing insect and fungi damage as regards the thresholds for removing damaged coniferous trees.*

*the Ministry of Agriculture and Forestry to clarify the relationship between the Forest Insect and Fungi Damage Prevention Act and the Forest Act with regard to forest biodiversity, while ensuring that measures to increase the amount of decaying wood are designed and implemented in ways that do not endanger the health of the forests.*

*the Ministry of Agriculture and Forestry to continue actions to harmonise interpretations of habitats of special importance defined in the Forest Act in different parts of the country.*

## **5 Cooperation networks**

Cooperation networks based on collaboration between forest owners are set up to reconcile the conservation, management and other uses of forests. The aim of the cooperation networks is that forest owners actively build up the biodiversity of forests that are linked to each other as well as livelihoods related to their sustainable use. Such networks can also promote business opportunities and recreational activities related to forest biodiversity. Cooperation networks may also operate in the context of village activities.

Such cooperation need not involve forests that border on each other or single delimited areas, but they may involve, on a voluntary basis, any forest owners with a special interest in cherishing forest biodiversity. Such projects do not set any obligations or limits for forest owners who are not directly involved themselves.

In terms of safeguarding forest biodiversity, the best prospects for cooperation networks are in the vicinity of current protected areas or other concentrations of important species or habitats. The main ecological objective of such networks is to create extensive and interlinked areas where biodiversity is safeguarded. Such areas are important for maintaining features such as sequences of fire-damaged forest habitats or decaying wood. Besides private citizens, other types of forest owners in a certain area may also join cooperation networks.

The innovative solutions relating to cooperation networks provide good opportunities for taking advantage of funding from the European Union for developing the operations and launching and continuing new activities.

### **The Government calls upon:**

*the Ministry of the Environment and Ministry of Agriculture and Forestry to lay the foundations for the creation of forest biodiversity cooperation networks.*

## **6 Organisation of natural values trading and related cooperation**

Successful implementation of natural values trading requires close cooperation between the regional environment centres and forestry centres. The environment and forestry centres will draw up, on an annual basis, a joint invitation to tender for natural values based on the ecological site selection criteria. Invitations to tender may be targeted according to regional priorities, and they may be sent to all forest owners in an area where a certain habitat type or structural feature can be found, in the vicinity of current protected areas, or in an area covered by a cooperation network.

Conservation measures are started on the initiative of the landowner. Before the tendering procedure, landowners must be informed about the METSO Programme and the conservation values to be promoted. Intensified marketing may also be used on behalf of the State to seek tenders for sites which represent certain types of habitats.

On receipt of such tenders, basic ecological surveys are conducted of the sites concerned. Landowners will have the opportunity to present their own views on the compensation or sale price to be paid. Reliable and comprehensive basic information facilitates the work of the public authority managing these procedures on behalf of the State.

In most cases the processing of the tenders requires site visits. The ecological criteria of the site are inventoried and, if the site appears to be acceptable for protection, its growing stock is assessed for the establishment of the sale price or compensation to be paid. After this assessment and the calculations, negotiations are arranged with the landowner concerning the protection means, delimitations and levels of compensation. If an agreement is reached, the next step is the preparation of the transaction or the conclusion of a contract concerning the establishment of a private protected area or a contract on protection for a specific time period.

During the implementation of the METSO Programme contacts with landowners are a high priority, in order to receive as many tenders as possible. Forest management associations, who assist forest owners in numerous ways concerning the use and management of forests, necessarily maintain close contacts with forest owners. The Ministry of the Environment and Ministry of Agriculture and Forestry will steer the work of the regional environment and forestry centres to ensure that the services of the forest management associations are used efficiently. Cooperation with the forest management associations may be organised on a contractual basis. The training of employees of the forest management associations could take place in autumn 2008, enabling this procedure to start gradually during 2009.

The geographic information systems of the environmental and forest authorities may be utilised to define regional priorities and help target invitations to tender, within limits established in the Personal Data Act.

**The Government calls upon:**

*the regional environment centres and regional forestry centres to undertake trading in natural values together with relevant stakeholders in 2008-2016, in accordance with the ecological site selection criteria and regional priorities.*

**7 Habitat management measures in commercially managed State forests**

Habitat management in State forests takes place in compliance with Metsähallitus's principles for landscape ecological planning and Environmental Guidelines for Practical Forest Management. Increased information on forest species and habitats has given rise to new actions and measures to be developed further for promoting habitat management in commercially managed forests. Measures undertaken in commercially managed State forests include special fellings (small clearings, selection and retention tree fellings) in target sites for restricted forestry measures, prescribed burning for habitat management purposes, and the sparing of retention trees as protective zones in the surroundings of wooded protected areas and concentrations of nature sites. Wetland habitats will be managed, a survey will be conducted of the conservation status of spruce

mires, fens and wooded flood meadows, and proposals are given for improving their status. Inventory of sunlit sites and the planning and implementation of management measures will be continued together with other actors.

**The Government calls upon:**

*Metsähallitus's Forestry business unit to undertake actions to enhance the biodiversity of commercially managed forests together with Metsähallitus Natural Heritage Services over the period 2009-2016. In the context of natural resources planning Metsähallitus should draw up forest use plans for key areas as regards the continuity and connectivity of Finland's network of protected areas as set out in the Environmental Guidelines to Practical Forest Management, with a special focus on biodiversity.*

## **8 Safeguarding biodiversity in municipal recreational forests and national hiking areas**

Almost all Finnish municipalities own some forest. The results of an enquiry conducted among municipalities by the KuntaMETSO (Municipal METSO) working group during the pilot stage of the METSO Programme show that a third of the municipalities concerned were willing to increase the share of their forests used for outdoor recreation in the near future.

The awareness of those responsible for the management of municipal recreational forests concerning opportunities to enhance biodiversity can be considerably improved. Experiences gained during the pilot stage of the METSO Programme and the programme's ecological site selection criteria provide valuable background information for planning the use of municipal recreational forests.

Finland's national hiking areas are very important for the general public as regards outdoor activities. They may also support protected areas, as long as their basic purpose is not compromised. The new management plans for these areas emphasise the natural state of forests and mires, and the management of herb-rich forests.

**The Government calls upon:**

*the Ministry of the Environment to assess proposals for measures in municipal forests drawn up by the KuntaMETSO (Municipal METSO) working group during the pilot stage of the METSO Programme, and to examine the possibilities for financing such measures in cooperation with the Association of Finnish Local and Regional Authorities during the period 2008-2010.*

*Metsähallitus to complete ecological inventories of national hiking areas in the region covered by the METSO Programme on the basis of the programme's ecological site selection criteria, and to draw up new management plans for these areas during the period 2008-2010.*

## **9 Advice to forest owners and training of professional foresters**

Advice to forest owners has been shown to increase their knowledge on both wood production and the biodiversity values of forests. Increased awareness of the biodiversity of forest habitats lays a good foundation for forest owners to offer more of the natural values in their forests to safeguard forest biodiversity.

Advice concerning biodiversity must be in proper balance with advice relating to forestry operations and forest planning. Advice becomes more effective if the ecological foundations for measures to enhance forest biodiversity are put forward in the advice to forest owners. Such advice should also include an assessment of the costs and possible risks of damage involved in safeguarding biodiversity. Forestry centres, forest management associations and buyers of wood all have a central role in the provision of personal advice on biodiversity to forest owners.

Finland's National Forest Programme aims to increase the commercial felling of domestic wood from the current level by 10-15 million cubic metres a year. In particular, felling in private forests should increase, which is why the appropriate targeting of felling and conservation is very important. To support the implementation of the METSO Programme and ensure the awareness of forest owners, the marketing of the means of the METSO Programme is to be incorporated in a balanced way into the forestry advice given to forest owners.

The personnel of forest and environmental organisations who work with forest owners must have sufficient knowledge of the actions needed to enhance forest biodiversity and their ecological foundations. Increasing knowledge of the ecological impacts of these measures will necessitate the continuous updating of related training programmes. One shortcoming in the diploma in habitat management has been that economic and financial aspects have not been covered comprehensively during training. In particular, the study of the economic impacts of measures designed to safeguard forest biodiversity and the related training has been insufficient.

### **The Government calls upon:**

*the Ministry of Agriculture and Forestry to devise, in support of the implementation of the METSO Programme, the content and targeting of advice on biodiversity to forest owners, with particular emphasis on the situation of different types of forest owners, and how they can be reached. Efforts to publicise the means applied in the METSO Programme are to be incorporated in all forest advice.*

*the Ministry of Agriculture and Forestry and Ministry of the Environment to organise training for personnel implementing the METSO Programme on the means applied and ecological site selection criteria, and to improve the level of expertise in biodiversity issues among professional foresters.*

## **10 Communications**

Communications work must effectively publicise the means and site selection criteria applied in the METSO Programme, as well as progress with the programme's implementation. Another aim

is to “give a face” to the METSO Programme by spotlighting the people and organisations involved. Communications should also report on the ecological, social and economic bases and impacts of the measures, both in Finland and internationally.

One important way to publicise METSO is to give the programme an easily recognisable visual image. The initial phase of the programme will be supported by a wide-ranging communications campaign exploiting various media. To support the work of local actors, the common communications and campaign material can be easily supplemented by local content. Besides serving the local actors, the aim is to improve cost-efficiency. The METSO Programme’s own website will be revamped and developed into a modern interactive tool that will facilitate access to electronic services and assist local actors. Stakeholders’ own communication channels will also be needed to promote the METSO Programme.

**The Government calls upon:**

*the Ministry of the Environment and Ministry of Agriculture and Forestry to collaborate on the preparation of content for communications material publicising the METSO Programme. The expertise of stakeholders will be utilised in the planning and realisation of communications.*

**11 Improving the knowledge base**

The required research and surveys for the METSO Programme can be broadly divided into two main categories: (1) research which produces the necessary basic information as regards the objectives of the METSO Programme; and (2) research connected to the monitoring, further development and impact assessment of the measures within the METSO Programme.

During the initial phase of the METSO Programme the necessary basic information was produced, particularly, through two research programmes (the MOSSE Biodiversity and Monitoring Programme, and PUTTE - Deficiently known and endangered forest species in Finland). Together with their follow-up projects these research programmes have considerably improved the planning and targeting of measures under the METSO Programme. The results of these programmes constituted the main knowledge base for the impact assessment of the pilot phase of the METSO Programme. Further improvement in the general knowledge base is still needed, however.

General research topics focused on ecological issues are:

- The continuation of the PUTTE Programme on deficiently known and endangered forest species in Finland
- Studies of the habitat requirements and dispersal potential of endangered forest species and groups of species, and the need for the protection of habitats
- Improving the knowledge base on the occurrence of endangered habitats and the need for their protection
- Ecological, economic and social impacts of fellings adjusted to natural disturbance dynamics
- Studies of the ecological effectiveness of habitat management measures in commercially managed forests

- Preparing for the impacts of climate change in forest ecosystems, and the repercussions for biodiversity of measures carried out to mitigate climate change
- Impacts of different actions taken to protect and manage forest habitats on greenhouse gas emissions and carbon balances.

General research topics focused on social sciences are:

- Ecological and economic efficiency of combinations of means to safeguard biodiversity
- Impacts of actions to mitigate climate change and other policies affecting forests on the conditions for safeguarding biodiversity
- Innovative ways of reconciling the objectives of safeguarding biodiversity in forestry and other uses of forests
- Various kinds of structures and practices in applying the means of safeguarding biodiversity
- Incentives to support the safeguarding of biodiversity
- Impacts of instruments applied in different sectors on the prospects for safeguarding forest biodiversity.

The sectoral research of the State is to be revised during 2008 by introducing a joint sectoral research procedure for the ministries, constructed on the basis of a sectoral research council. Some of the research needs of the METSO Programme are such that it could be possible to take them into account in planning the research programmes for future sectoral research.

**The Government calls upon:**

*the Ministry of the Environment and Ministry of Agriculture and Forestry to continue to organise research that supports the implementation and evaluation of the METSO Programme.*

**12 Enhancing the monitoring of the state of forest biodiversity, information systems and statistics**

Impact assessments for the measures within the METSO Programme must be based on monitoring of the state of forest biodiversity. The impacts of the METSO Programme on forest biodiversity can be demonstrated by monitoring forest species and habitats. Determining the cost-effectiveness ratio in turn calls for detailed statistics on specific measures and the resources used for them.

Based on such monitoring and statistics, the measures within the METSO Programme can be further focused, enhanced and, where necessary, retargeted. Improving the monitoring of forest biodiversity will also help Finland to meet various national and international information needs, such as the reporting required under the Birds and Habitats Directives of the EU and the UN Convention on Biological Diversity.

Numerous long-term monitoring projects already produce relevant information on the state of forest biodiversity in Finland. This is why organising the monitoring of forest biodiversity and the related reporting will not require any extensive new projects. Additional resources are needed to develop and support the current monitoring systems to guarantee their continuity and improve the

usability of their results. It is most important that resources are targeted to help compile, process and report on the monitoring data already produced in various contexts, and to improve the related information systems.

Impact assessment of the implementation of restoration and management requires established monitoring methods and a monitoring network with sufficient geographical coverage. The monitoring of costs will show both how cost-effective the implementation of the various actions is, and how cost-effectively a certain objective can be reached.

Various kinds of information on biodiversity already exist, scattered in the information systems of different stakeholders. Improving the usability of the main databases and information systems is important for the monitoring of the METSO Programme. The objective in organising information systems covering biodiversity is that the information should be readily available independent of the system where it is located or the organisation which compiled it. Data protection issues must receive due consideration in developing these information systems. There is a need for the further development of information systems concerning both protected areas and commercially managed forests. Information systems are to be developed so that information essential to practical actors on the factors applied in delimiting contracts and measures is readily available.

The working group on the harmonisation of forest protection classifications and statistics has set out a basis for the classification of protected forest areas in Finland and for related statistics. The Finnish Forest Research Institute has been commissioned to plan the necessary information system and compile annual data. In terms of surface areas the most significant information still missing from the statistics on protected areas concerns the municipal forests used for outdoor recreation. In future information on protected areas should also be collected by municipalities so that statistics can be produced using more detailed regional breakdowns. Information on protected forest areas should also be published in an internationally comparable form.

### **The Government calls upon**

*the Ministry of the Environment and Ministry of Agriculture and Forestry to allocate resources for the compilation, processing and joint reporting of monitoring data on the state of forest biodiversity, to improve the compatibility of information systems concerning biodiversity, and to ensure the flow of information on METSO sites.*

*the Ministry of the Environment to improve the management of information on species and habitats as part of the productivity programme for Finland's nature conservation administration.*

*Metsähallitus to monitor the ecological and economic impacts of restoration work and habitat management in protected areas.*

*the Finnish Forest Research Institute to enhance statistics on protected forest areas especially as regards municipal forests, the breakdown of statistics by municipalities, and international comparability.*

### **13 Inventories of biotopes and species**

Information on biotopes and species is needed for the practical implementation of the management and use of protected areas. Basic information is also needed for assessments of the coverage, quality and representativeness of Finland's network of protected areas and state of individual areas. Up-to-date basic information on protected areas is also important for monitoring climate change and the adaptation.

The collection of basic information on species should particularly focus on the current statuses of species which are threatened, listed in the Habitats or Bird Directives, or otherwise important in conservation terms, as well as the identification of their core distributions. The need for up-to-date information on the occurrence of species to be protected is most urgent, especially as regards species whose survival depends on management measures.

The need to collect information on biotopes is most urgent in protected areas which have not been inventoried so far and in other areas where information on biotopes is insufficient. Areas transferred from the Finnish Forest Research Institute to Metsähallitus are to be inventoried to find sites that are important for biodiversity which can be included in the METSO Programme. For the impact assessment of the METSO Programme more information will also be needed on species living in commercially managed forests. More accurate and extensive information on threatened and demanding species will contribute to efforts to reconcile species protection, commercial forestry and other uses of forests. Information on species is also important for preserving and increasing the occurrence of structural features significant for biodiversity. Inventories of species in commercially managed forests must be conducted in close collaboration with forest owners.

**The Government calls upon:**

*Metsähallitus to complete biotope inventories of protected areas in southern Finland, to continue and expand the present species inventories in protected areas, and to examine the possibilities to carry out inventories also in commercially managed forests.*

*Metsähallitus to carry out a landscape ecological study and inventory of natural values in areas transferred from the Finnish Forest Research Institute to Metsähallitus, starting in 2008.*

*Metsähallitus to collect basic information on new areas to be protected under the METSO Programme.*

*the Finnish Environment Institute to oversee the maintenance and updating of the database on the occurrence of threatened species and exchanges of information in the context of collaboration between public authorities.*

**14 Monitoring and evaluation of the implementation of the METSO Programme**

Monitoring and evaluation will be needed to improve the programme's measures and also, where necessary, for the reallocation of resources. In monitoring, the aim will be to compile annual

summaries on the implementation of the measures included in the METSO Programme. Interim reports on the implementation of the programme and its ecological, economic and social impacts will be prepared on the basis of experiences and research findings in 2010 and 2013, and a final report will be completed in 2016.

**The Government calls upon:**

*the Ministry of the Environment to set up a broadly-based working group to monitor the implementation of the METSO Programme.*

*the Ministry of the Environment and Ministry of Agriculture and Forestry to organise impact assessments of the METSO Programme in 2010, 2013 and 2016.*