



National Forest Programme 2010 – Multiple Use of Forests



National Forest Programme
Finland

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FOREWORD

"The National Forest Programme" is a relatively new concept that has only established itself in the recent years. The term refers to the principles of forest policy but also to a new, more open and extensive process for shaping these principles.

Finland has had national forest programmes since the 1960s. The programmes for financing for forestry (1964, 1966 and 1969) and the Forest 2000 programme (1985) aimed at boosting forestry. In addition, the Forest 2000 programme also introduced multiple use of forests. With the help of these programmes, the growth of Finnish forests and the growing stock started to increase. We have already reaped some of the benefits of this development.

National Forest Programme 2010 was drafted in the years 1998–1999. The drafting featured the new, extensive and open process and a focus on ecological sustainability that had become a hot topic all over the world.

The National Forest Programme of Finland follows principles subsequently confirmed by the European Conference of Forest Ministers in Vienna in 2003. FAO and the United Nations Forum on Forest have also established a corresponding international concept of "National Forest Programme".

In view of ecological sustainability, the most significant action within National Forest Programme 2010 was the launching of the Forest Biodiversity Programme for Southern Finland (METSO). Other new features in National Forest Programme 2010 include its links to the regional forest programmes, creation of the Future Forum on Forests in order to evaluate the future and establishment of the national and regional forestry councils.

This publication provides a versatile view into the projects and activities for carrying out the aims of National Forest Programme 2010 on the national and regional levels. The publication also acts as a solid background for the review of the National Forest Programme that is currently in progress.

Helsinki, 2 June 2006

Aarne Reunala
Director General
Ministry of Agriculture and Forestry

NATIONAL FOREST PROGRAMME 2010 – SUSTAINABLE WELL-BEING FROM DIVERSIFIED FORESTS

National Forest Programme 2010 is a strategic action plan approved by the Council of State. The programme aims to develop the management, use and protection of forests as one entity, as an extensive forest sector.

We Finns want our forests to provide direct or indirect employment and livelihood and to provide recreation for body and soul. At the same time one must ensure the viability and biodiversity of forests.

This programme was drafted and has been carried out in extensive cooperation with various actors since 1999. During this period it was included in the Government Platform of Prime Minister Paavo Lipponen's first and second Cabinet and Prime Minister Matti Vanhanen's Cabinet. In the Strategy Document of the present Cabinet the National Forest Programme is listed as one of the cross-sectoral strategic programmes.

The execution of the programme is directed and monitored by the National Forest Council with the help of its secretariat and work groups. All organs include an extensive selection of operators and interest groups, nearly 100 persons in total.

The regional forest programmes are the corresponding regional element to the National Forest Programme. The regional forest programmes are drafted for a five-year period. This process is led by the Regional Forestry Centre and supported by the Regional Forestry Council. These programmes deliver the regional message to those considering the focuses of the National Forest Programme and, in return, provide the channel for executing the National Forest Programme.

Focuses and execution of the Programme

The National Forest Programme has the following focuses:

- Growth possibilities for the forest industry
- Profitable forestry that provides employment
- Good silviculture
- Securing of ecological sustainability
- Recreation and organic products out of the forests
- Strengthening of forest-related know-how
- Finland is active in international forest policy

The National Forest Programme is executed in various ways. The simplest way is to incorporate this programme into the normal routines of each branch of govern-

ment. The aims of the Programme are considered when drafting legislation, budgeting for funds, setting the annual result aims for directing the activities and in the strategy work and planning of the activities of each party. Examples of these include the Act on the Financing of Sustainable Forestry and the corresponding funds in the budget or the financing of the pilot projects of the Forest Biodiversity Programme for Southern Finland (METSO) on funds from the Ministry of Agriculture and Forestry and the Ministry of the Environment. The National Board of Education directs the education programmes and admission quotas of educational institutes according to the policies of the Programme. The Ministry of Trade and Industry directs the corporate and energy support to targets in need of development.

Cross-sectoral programmes and strategies are another way of carrying out the National Forest Programme. These may be programmes directly conceived based on this programme or initiated by the Forest Council, such as the Woodworking Industrial Programme led by the Ministry of Trade and Industry and the Wood Construction Development Programme led by the Ministry of the Environment.

A more indirect way is to take into account the needs of the National Forest Programme when drafting the aims and actions of other programmes, like in the Programme for Developing Recreation and Nature Travel (VILMAT).

The National Forest Programme affects other national strategies and vice versa. The central strategies include the strategies for biodiversity, energy, climate, regional development, rural areas, traffic policy and research policy. A dialogue is conducted each time these programmes and strategies are reviewed.

National and regional development projects provide the third way. The size, content, aims, executive parties and financers of these vary greatly. However, it is typical of every good project that there is a spirit of creating something new, a clear plan and target group as well as the aim of promoting cooperation. Examples of such

national projects include the Future Forum on Forests, the Forest Learning Path as well as countless regional projects, such as forestry advice projects for different target groups, projects for promoting wood processing and wood use for generation of energy, forest travel projects and test projects for new conservation means.

One should note that the majority of public funding for regional development projects in the forest sector is channelled through funding for other policies, so to speak, such as funding for rural areas, regional development or employment. Therefore, harmonisation of the various policies is not an idle request when planning regional and national programmes.

The fourth and a very important way to realise the National Forest Programme, although outside the state budget, consists of projects of the private sector and of other co-operating parties and of partial financing in projects with public funding. In most development projects, the private sector, such as forest owners or entrepreneurs, are involved both as beneficiaries and as part financiers.

The realisation of the National Forest Programme and of the regional forest programmes is monitored and follow-up reports are written of the results. This publication aims to give examples of the results and activities often depicted as statistics and as analyses and how these are obtained by various and versatile activities.

What have we achieved and where are the challenges?

As a whole, the programme carried out in cooperation with the public and private sectors has functioned well. Investment into silviculture, forest energy and employment

in the forest sector as well as the METSO programme have developed according to plan. International forest policy has also been fruitful.

However, not all aims have been reached. The use of domestic roundwood, profitability of forestry, exports in the wood products industry, ditch cleaning and first thinnings require more effort.

The operation of the National Forest Council and the regional forest councils is very satisfactory but there is still room for considerable improvement in the harmonisation of practical actions and financing.

The operating environment of the forest sector has undergone many changes since 1999. The imports of roundwood into Finland have grown considerably and the roundwood markets and forest industry have become increasingly international. Issues such as climate change and biodiversity are becoming more and more important together with the social significance of forests and their impact on regional development. The EU as well as international treaties and negotiations concerning forests have an increasing effect also on the Finnish forest sector.

Review of the Programme was started as a result of the changes in the operating environment and of the subsequent need of revision of some of the outdated central aims. The reviewed Programme will be submitted to the Council of State at the end of 2007 together with the motion to continue the Forest Biodiversity Programme for Southern Finland. Nevertheless, the development work for the forest sector will proceed in its various forms throughout the review.

NATIONAL FOREST PROGRAMME 2010 SITUATION

	Start in 1998		Objective 2010	Status 2004
• Commercial roundwood removals	58	→	63–68 mill. m ³ /y	60
• Investment into silviculture	190	→	250 mill. €/y	230
• Growing stock and increment			Larger than in the 1990s	yes
• Net result in private forestry	100	→	110 €/ha/ year	97
• Use of forest chip	0,8	→	5 mill. m ³ /v	2,7
• Exports in the wood products industry	2,5	→	5 bill. €/y	2,6
• Exports in the forest sector	11	→	13 bill. €/y	13
• Employment in the forest sector	95 000	→	80 000 persons	92 000
• Conservation of biodiversity			Improving in South Finland	yes*)
• Recreation and multiple use			Taken care of	yes
• Forest-related know-how			Improved	yes
• International forest policy			Active in	yes

*) Forest Biodiversity Programme for Southern Finland (METSO)

Leena Hytönen

Minister Juha Korkeaoja:

"WORK OF THE FOREST COUNCIL DRAWS FROM THE KNOW-HOW OF THE ENTIRE FINNISH FOREST SECTOR"

The visions of the Forest Council have provided an important guideline especially in the planning of long-term policies. "The wide-base Forest Council is an excellent forum for promoting sustainable forestry" sums the Chairman of the Forest Council, Minister of Agriculture and Forestry, Juha Korkeaoja.

The task of the Forest Council is to provide support to the Ministry of Agriculture and Forestry in extensive and important principal issues concerning forest policy, to monitor the execution of the National Forest Programme and to review the Programme. The term of the current Forest Council that started its work in June, 2005, will last to August 2008.

Minister Korkeaoja lists two starting points for the role and tasks of the Forest Council: "The forest sector is still one of the cornerstones of the Finnish national economy. Therefore, it has exceptional national impact on the economic development of the country. The development of such a sector requires wide social approval."

The other starting point for the operation of the Forest Council arises from the significance of forests with regard to environmental protection and from the profound links of the forests to the Finnish culture, to the recreational and free-time needs of the Finns and to

the Finnish identity in general.

"When this diverse field needs to be brought together, wide communication with various national circles is required. The Forest Council is the organ through which we have aimed to ensure contact to the forest sector and I think the Forest Council has handled this role successfully" Minister Korkeaoja continues.

Long-term activity is another characteristic feature of the forest sector. "All decisions are aimed beyond or have effect for more than one Cabinet term absolutely but in many cases the effects reach across generations. Therefore, decision-making involves extreme uncertainty. When society makes decisions that reach far into the future or the results of which, as in forest regeneration for example, can be seen only after decades it is important that the decisions are based on extensive judgement. The visions of the Forest Council have provided an important guideline especially in the planning of long-term policies" Minister Korkeaoja continues.



The Forest Council having a break at a meeting at the House of Estates, May 17, 2006. Photo: Pekka Väisänen.

The Forest Council meets four times per year. The secretariat and work groups are an integral part of its work. There are four work groups for: Economic sustainability of the forest sector, Ecological sustainability of forests, Social and cultural sustainability of the forest sector and international forest policy. Cooperation and communication with the regional forest councils and other regional operators is also frequent.

"The field of operation of the Forest Council is so wide that the preparatory and expert work in the workgroups is a crucial part of the Forest Council. Thus, the work of the Forest Council is linked to the know-how of the entire Finnish forest sector", Minister Korkeaoja points out.

A forum for harmonisation

The Forest Council conducts frequent discussions about the valuation and harmonisation of various forms of forest use. Harmonisation of the interests of conservation and economic use is a topical issue in the northernmost parts of Finland as well as in the realisation of the Forest Biodiversity Programme for Southern Finland (METSO).

"In my opinion the Forest Council is an excellent forum for evaluating sustainable forestry", Minister Korkeaoja explains. "However, it is clear that when there are simultaneously both extremely powerful economic interests and strong environmental, recreational and cultural interests with regard to forest use, it is a challenging task to bring these aims together."

The Forest Council of 23 members forms already a large group but it generates active discussion. "Absolutely, and when we are seated around one table each party can grasp that there are different, well-founded and considered views over the issues addressed. Genuine recognition of the various views and of the need to harmonise these also introduces an element of responsibility into the work of the Forest Council" Minister Korkeaoja continues.

According to Minister Korkeaoja, the execution method of the National Forest Programme of Finland has created positive interest also abroad. "There is a lively interest into the way we carry out the Programme, and lots of wishes to come and visit to take a closer look at our operations."

Review in progress

The review of the National Forest Programme is in progress, led by the Forest Council. Minister Korkeaoja highlights the significance of the National Forest Programme in the generation of information. "It is a vital prerequisite for the operation of a market economy that

all parties are in possession of correct information. In this respect, the National Forest Programme and the Forest Council occupy an important position".

The National Forest Programme has established its position also in the work concerning the Government Platform. "Government Platforms have become an important means for shaping policies, and for deciding many major outlines. Updated background information and evaluations of the developments affecting the forest sector will be provided for the Cabinet talks of spring 2007 as a result of the National Forest Programme review process. The new Cabinet should then be able to update the National Forest Programme at the end of 2007 to correspond to their Government Platform", continues Minister Korkeaoja.

The review of the National Forest Programme includes evaluation of issues ranging from the international development and operational outlook for the forest industry to biofuels for traffic. According to Minister Korkeaoja, availability of timber raw material for the forest industry, issues concerning the securing of forest biodiversity and forest conservation and new end products from timber raw material will be topical also when drafting the next Government Platform.

REPRESENTATIVES IN THE FOREST COUNCIL

(substitutes in brackets)

- Ministry of Trade and Industry
- Trade Association of Finnish Forestry and Earth Moving Contractors
- Ministry of Agriculture and Forestry
- Central Union of Agricultural Producers and Forest Owners MTK
- METO – Forestry Experts' Association
- (Society of Finnish Professional Foresters)
- Metsähallitus
- Finnish Forest Research Institute
- Hunters' Central Organisation
- Finnish Forest Industries Federation
- Ministry of Education
- The Finnish Paper Workers' Union
- Wood and Allied Workers' Union
- Regional Forestry Centre of the Coast (Regional forest councils)
- Ministry of the Interior
- Ministry of Social Affairs and Health
- Finnish Association for Nature Conservation
- The Guides and Scouts of Finland
- (Suomen Latu ry)
- Finnish Sawmills
- Ministry of Finance
- WWF Finland
- Ministry of the Environment

REGIONAL FOREST COUNCILS POINT THE DIRECTION FOR DEVELOPING THE FOREST SECTOR

The National Forest Programme is carried out through the measures of the regional forest programmes. The regional forest councils monitor the realisation of the aims and direct the activities. The significance of the programmes is measured through the practical work. In North Ostrobothnia, a clear link has been established between the forest programme and rural development.

The Ministry of Agriculture and Forestry appointed the first regional forest councils in June 2001 for the term 2001–2003. Appointing the regional forest councils was a part of the process for reviewing the regional forest programmes for 2001–2005, according to the National Forest Programme. When this review was nearing its completion it was deemed necessary to establish regional forest councils corresponding to the National Forest Council in the operational regions of all 13 forestry centres.

The regional forest programmes were reviewed through an open cooperation process and the same principles have been applied in the execution and monitoring of the programme. In the extensive region of North Ostrobothnia, the initial aim was to create a wide-based forest council both with regard to expertise and areal representation. The Forest Council had initially 21 members and when the new forest councils were appointed for 2004–2006, this number was further increased by four new members.

From words to deeds

At the beginning of its work the regional Forest Council defined the actions for promoting and monitoring the execution of the Regional Forest Programme. Preparation of the Forest Council agendas is mainly done in the Forestry Centre. In addition, the project Forestry Work Programme and its project team have provided material for the Forest Council concerning activities promoted through EU projects. Information at the meetings has included for example the direction of development projects partially funded by the EU and the available resources.

The Forest Council prioritised the aims of the Regional Forest Programme for realisation and the work groups prepared execution plans for the most urgent aims. A separate set of meters was created for monitoring the realisation of the aims.

The North Ostrobothnian Forest and Environment Report was compiled for the first time in 2004 following the national layout for this report.

In North Ostrobothnia the Forest Council has familiarised itself with the central issues of the Forest Programme on excursions themed e.g. around development possibilities for the use of wood energy, forestry education, forester entrepreneurship, mechanical wood processing and ditch cleaning issues. The meetings include monitoring of and issuing statements on the funding for timber production and nature management, preparation of the regional plan and realisation of the Forest Biodiversity Programme for Southern Finland (METSO) within the region.

In 2005 the main task of the Forest Council was to prepare the new Regional Forest Programme. This work was launched by reviewing the data of the newest, i.e. 9th Forest Inventory. Realisation of the aims of the previous Forest Programme (2001–2005) and its results were analysed and changes in the operational environment were evaluated and development needs listed at the Forest Council meetings. Next, the Forest Council will centre on the realisation of the new Regional Forest Programme drafted for 2006–2010.

Tasks of the Forestry Work Programme:

- Assist the businesses, forest owners and associations operating in the region in the practical development work.
- Inform of the aims and opportunities of the project work.
- Draft project proposals in cooperation with the applicants.
- Promote cooperation between the various operators to e.g. reduce overlapping activities.
- Assemble a network of experts to develop the sector and to ensure functions of the work programme.
- Chart funding possibilities for projects and seek possible executors for emerging project ideas.



The North Ostrobothnian Forest Council familiarised itself with harvesting and use of wood for generation of energy on an excursion in October 2002. Pentti Jokikokko, Chairman of the Forest Council in 2001–2003, front left.

Photo: Eeva-Liisa Repo.

Targeted project advice for acquiring new operators for developing the forest sector

The project Forestry Work Programme was carried out in 2000–2005 initiated by the Division of Rural Affairs of the North Ostrobothnian Employment and Economic Development Centre. The main task of this project was to direct project activity in the region to development targets that are central for the regional forestry and to locate new operators to carry out development projects in the forest sector. The link to the Regional Forest programme was created through the project group selecting the focuses in the aims of the Forest Programme for creating project activity.

The Regional Forestry Centre of North Ostrobothnia acted as the project coordinator. Corresponding work programmes were launched to develop agriculture, food production and village activity.

Advice, coordination and guidebooks

The tasks of the Forestry Work Programme have been to assist applicants in planning their projects and to give advice during project execution. Suitable sources of funding are sought together with the applicants for development activity in the forest sector. The Work Programme is used as a channel to inform the regional financing authorities of the needs of the forest sector. The coordinator of the Work Programme issues statements on project plans at the request of the financiers.

The Work Programme has resulted in motions to construct larger entities, for example concerning the boundary surfaces between forestry and other fields. The Work Programme has also actively initiated development projects in fields deemed important in the region but for which it has been difficult to find executors.

The coordinator of the Forestry Work Programme has compiled guidebooks and advisory material to facilitate project administration. Project theme days have been organised to increase cooperation and reduce overlapping development activity for forestry projects as well as all rural development projects. The project theme days have addressed topical issues concerning project execution and other development in the field.

According to the evaluation conducted on the Forestry Work Programme, forestry organisations consider the Forestry Work Programme a good operational model. In particular, advisory services in connection with project preparation and assistance in project management received acclaim from the operators. The financier has been satisfied with the coordinating role of the Forestry Work Programme and with the flow of information between the financiers and the operators.

Projects towards more profitable forestry

In the course of the Forestry Work Programme 43 development projects in the forest sector have been carried out in the region of North Ostrobothnia. Based on the Forest Programme the projects have addressed the following selected focuses:

1. Improvement of the profitability of active forestry (11 projects)
2. Increase of the use of wood for generation of energy (5)
3. Promotion of small-scale mechanical wood processing (3)
4. Securing sufficient labour, development of services and business operations (12)
5. Promotion of multiple use of forests and environment management (2)

STEPS IN THE PROMOTION OF WOOD USE – FROM DOMESTIC TO INTERNATIONAL ACTION

One of the central aims of the National Forest Programme is to double the value of wood product exports by 2010. The competitiveness of wood is based on its possibilities as a renewable ecological construction material.

The production of sawn timber in Finland has been about 13 million cubic metres per year in recent times. Exports have amounted to about 8 million cubic metres and the volumes have grown, especially to areas outside Europe, such as Japan.

The consumption of wood products in Finland has simultaneously risen to a level highest in the world, already exceeding 1 cubic metre per inhabitant per year. The lively domestic demand has contributed to more than doubling the turnover in a decade, from 2,8 billion to 6,7 billion euro.

Cooperation between the State and the industry has been another contributing factor to this favourable development. The central tools for effecting this rise of the Finnish wood products industry have consisted of the successive development programmes: Wood Age and Wood Europe campaigns and the Decision in Principle by the Council of State on the Promotion of Wood Use and Wood Construction in 2005.



The apartment blocks in Puu-Paavola in Lahti are a part of the Modern Wood Town development project. Photo: Pekka Väisänen.

Wood Age – domestic use of wood on the rise

The Wood Age campaign staged during 1997–2000 was a joint project of the State, the mechanical forest industry and the forest sector. The campaign aimed at promoting the use of timber raw material and wood products, at increasing the level of further processing of wood and at increasing exports. These aims were pursued by influencing the attitudes towards wood, by creating a positive acceptance for wood among the consumers, by carrying out extensive education for wood construction and by supporting the creation of new techniques and targets for wood construction. These activities focused on Finland.

The campaign was led by the Ministry of Agriculture and Forestry and the share of funding by the State was about 3–4 million marks annually. Other operating partners included Puuinfo Oy and the Finnish Forest Association. The investment of the industry into the campaign climbed to tens of millions of marks. The campaign

- promoted the use of wood as raw material and the use of wood products in construction, interior decoration and the arts,
- increased the level of further processing of wood,
- increased exports,
- created new jobs into the field and
- raised the image of wood as a construction and decoration material.

Wood Europe – targeting the world more visibly

Encouraged by the good results at home, it was decided to continue the promotion activities for the use of wood in 2001–2005 in the Wood Europe campaign. Since the aim of the National Forest Programme was to double the value of exports of wood products by 2010 to 4,2 billion euro per year, the promotion of wood use and exports in the principal markets for Finnish timber, mainly in Europe, were selected as the focal points. Thus, the vision of the industry, whereby wood will be the leading material in construction system solutions

and consumer products for high-quality living in Europe was also supported.

The coordination responsibility for this new campaign was passed on to the Ministry of Trade and Industry in accordance with the changed nature of the campaign. Other domestic partners included the Ministry of Agriculture and Forestry that continued to provide funding for the campaign, Puuinfo Oy/Wood Focus Oy, Finnish Sawmills and Finnish Forest Association. The investments by companies into the promotion of exports were about 8 million euro per year, whereas annual public funding was about 1 million euro.

Wood Europe focused on

- increasing the processing degree of the wood products industry,
- improving the operating conditions of small and medium-sized companies in the field,
- lowering the threshold for entering home markets within the EU for wood products,
- strengthening the high quality and image of wood products as a competitive factor in exports,
- influencing the markets for wood products through the means of social information, data transfer and research for the target group of decision-makers and the media,
- removal of technical barriers for the trade of wood products and active participation in the development and standardisation work;
- securing the results in Finland.

Decision in Principle by the Council of State – focus on wood as an ecological construction material

According to the Government Platform of 2003, the use of wood shall be promoted especially by drafting a separate business environment policy programme for the wood products industry and by promoting wood construction in the production of houses. An additional aim is to continue the execution of National Forest Programme 2010.

In order to reach these aims, it was decided in early 2004 to draft two programmes for the promotion of wood use: A Business Environment Policy Programme for the Wood Products Industry 2004–2010 and the Programme for Promotion of Wood Construction 2004–2010.

Based on these programmes, the Council of State adopted a Decision in Principle on 17 March 2005 to promote the use of wood and wood construction.

The challenge for this Decision in Principle is to look into the future. The competitiveness of wood is seen to base on the possibilities of wood as a regenerating ecological construction material. The greatest potential in the markets with regard to wood construction is seen

in the neighbouring regions, especially in the economic region of St Petersburg.

In research and development and standardisation the focus is on European cooperation. In addition to the technological development, also the significance of business know-how is emphasised. The challenge for education is to meet the professional demands of the future.

The quality of domestic regional development projects and cooperation between the parties are emphasised. In domestic wood construction, the focus is on increasing city-type construction of housing in growth centres and ensuring planning that supports this. Moreover, there is a clear need to harmonise directions and interpretations of the authorities and to study the need for revising construction regulations and relevant guidelines.

The number of partners in executing this Decision in Principle is larger than in earlier campaigns, which emphasises cooperation between the various operators. On the level of central government, the operators are the wood products and wood construction industries, municipalities, Ministry of Trade and Industry, Ministry of the Environment, Ministry of Agriculture and Forestry, Ministry of the Interior, Ministry of Education as well as the Finnish Funding Agency for Technology and Innovation (Tekes) and Finpro.

On the regional level, the 18 regional directors of the Wood Finland quality programme play a crucial role. The task of these directors is to support the regional activities in the field of wood products e.g. by influencing the drafting and execution of the regional programme for developing the wood products sector together with the regional councils, employment and economic development centres, forestry centres and especially with companies.

Measures in the Decision in Principle by the Council of State:

- Promotion of the use of wood through international cooperation
- Promotion of the use of wood through research and development
- Strengthening of the competitiveness of the wood products industry and wood construction by developing new business and partnership models
- Education in cooperation with the wood industry sector to ensure availability of professionally competent labour for the wood and wood construction sector
- Improvement of the quality of development projects by directing resources into key areas of know-how
- Promotion of regional land use and construction of homes according to the needs of housing
- Development and harmonisation of construction regulations and other direction by the authorities

WOOD PRODUCTS INDUSTRY PROVIDES VERSATILE OPPORTUNITIES FOR RURAL BUSINESS

The region of South Ostrobothnia is known for its small enterprises and carpenters. The wood cluster is a focus for regional development activities, together with the metal and food clusters. Genuine cooperation and networking provide the building blocks of success.

Development of small and medium-sized wood products industry is strongly involved also in the work related to the South Ostrobothnian Forest Programme. The aim of the Forest Programme is to increase the turnover of businesses in this sector, promote the creation of new companies, facilitate the transfer of labour released from the agricultural sector into the wood products business, develop the marketing of wood products, increase customer orientation and exports and to promote the raising of the processing degree in the wood products industry.

The wood cluster (forestry, production of wood and peat energy and wood products and furniture industry) provides direct employment to about 6 000 persons in South Ostrobothnia. The combined annual turnover of the various sectors in the cluster amounts to more than 700 million euro. Of all companies in the cluster, about 600 operate in the wood products and furniture industry. This sector employs about 3 500 persons and has a turnover of 450 million euro per year.

It is typical of the South Ostrobothnian wood products industry that the companies are small and their number is large. The majority of these companies are family businesses.

Development projects as a tool of the Forest Programme

The starting point for the development projects of the Forestry Centre of South Ostrobothnia for the wood products industry has been to provide as concrete advice and consulting services for each business as possible and to ensure regional coverage of the services. Through the projects, the companies have been offered advice regarding both production and finances. Another important form of development has been promotion of cooperation and networking of the companies.

The funding for these development projects has been mainly through the structural funds of the EU. The main development projects in mechanical wood processing in 1998–2005 have been the projects Wood for Business and Puulakeus. These projects were organised by the Forestry Centre and included various partners, such as entrepreneur associations, educational institutes, consultants and other development projects in the field.

The strategic decision made by the Forestry Centre in the middle of the 1990s to focus its activities more on developing the business concepts based on forestry and



A combined carpenter's studio and shop constructed of Ryhti elements as a turnkey delivery. The size of the building is 600 m². Photo: Tapani Kaipio.

wood has created a good environment for realising development projects. Four forestry engineers were trained as wood technology engineers and other professionals in wood use, such as construction engineers have been employed into the projects at need. Four full-time business advisers based in different parts of the region have operated in the wood processing projects. This has brought the services close to the businesses and created good recognition in the field.

Jobs in the region and timber for local processing

Tailored advice on investment support for each company has been a significant initiator of investment. These investments have included acquisition of machinery and equipment, expansion of corporate premises and construction of new offices. Also company-specific product development and marketing projects have received their share. The companies that had received advice invested nearly 16 million euro in total during the EU 5b programme and the Regional Development Programme for Rural Areas (ALMA). These investments received investment support from the EU through the Division of Rural Affairs of the South Ostrobothnian Employment and Economic Development Centre.

Measured in man years, nearly 100 new jobs were created in the companies as a result of these activity-sparking investments. Since many of the businesses were set up as supplementary businesses alongside agriculture, the true number of new jobs is considerably greater, in total about 200.

In addition to the growth and expansion of the existing businesses, also about 90 new companies have emerged, most actively set up by small farms looking for additional income outside of agriculture. Two thirds of the new companies were set up as supplementary businesses alongside agriculture.

Marketing power through networking

The success of small companies requires networking with other companies. This is a well-recognised fact in the businesses in the region. Cooperation results in lower costs, reduces the need for investment and leads to increased capacity.

The most important requirement for networking is that all parties participating in setting up the network know each other to a sufficient degree in order to nurture trust. In any case, enough time must be reserved for building up the cooperation.

Both the Wood for Business and Puulakeus projects organised various activities and functions in order to increase inter-company cooperation. Training sessions, joint fair and exhibition stands and field trips were among events that familiarised the entrepreneurs with one another and sparked ideas for cooperation. About ten different networks, functional partnerships or joint ventures were created during the programme period. As the size of farms is growing also the scale of new production buildings and their construction has undergone a radical change. Consequently, concrete and steel have taken over wood as construction materials.

WOODHALL PARTNERS CONSTRUCT HALLS FOR RURAL BUSINESSES

Instead of the former do-it-yourself construction the time or know-how of the farmers of today is not sufficient for erecting large production buildings.

The Puulakeus project charted businesses in the wood sector interested in farm construction in South Ostrobothnia as a part of the Wood Finland programme in the summer of 2003. The project gathered together the businesses expressing interest and conducted negotiations with the national agricultural traders and with construction companies. In this way, material for designing a hall system based on wood elements, for setting up a production network and for marketing it was obtained.

Test marketing for the product started in autumn 2004. At the time, the network consisted of 8 companies complementing each other. Together, these companies could deliver large hall packages from planning and design to all the essential structural parts. Cooperation in turnkey deliveries was agreed with two different construction contractors. The South Ostrobothnian Cooperative / Agrimarket took over the marketing activities.

Sales started to develop briskly. The first deal was closed in December 2004 and nearly ten halls were sold already during 2005. The businesses in the network decided to formalise the organisation and to agree about the rules of cooperation more specifically. The South Ostrobothnian Woodhall Partners alliance was established and a written charter drawn up for it. At the same time the work name Ryhti Hall was registered as an official product brand of the alliance.

More than a dozen Ryhti halls have been sold – including cold and heated halls, chip stores and heating plants and buildings for fur production, for industrial production as well as for shopping space. The aim of the network is to further increase sales and to look for new targets for the wood hall system. Prospects for the near future look brightest in fur production especially and in other buildings for cattle etc. The aim is to gradually expand marketing of the products to the national level.

Mårten Lövdahl, Unit Director
Development Centre for the Wood Sector, Woodpoint

WOODPOINT OPERATES ON TERMS OF THE ENTREPRENEURS

The cooperation and development network for mechanical wood processing, Woodpoint, promotes cooperation among its member companies, aims at raising the processing degree and provides help for product development and internationalisation.

Woodpoint was launched in 1997 based on initiative from the Ostrobothnian Union of Forest Management Associations. The aim of the EU project was to promote the operation of small sawmills. The municipality of Maalahti acted as the first host organisation.

Already in the following year the activities were transferred to Vaasa to the Forestry Centre of the Coast. The area of operation expanded rapidly whereby a host organisation was needed that could cover the entire Ostrobothnian region. This solution proved successful: as Woodpoint got a stable host, the Forestry Centre of the Coast gained an excellent opportunity to promote the wood product industry in practice, according to the National and Regional Forest Programmes.

Ostrobothnia hosts a variety of dynamic wood industry. The aim of Woodpoint has been from the start to de-

velop mechanical wood processing as far as possible on the terms of the entrepreneurs. Feedback from the entrepreneurs has been mainly positive, which has been the main driver for obtaining viable financing solutions for continued activity.

Local cooperation and partnership

The Board of Directors of the Forestry Centre of the Coast consider the development of mechanical wood processing so important that it was decided to make Woodpoint a permanent part of the activities of the Forestry Centre. Starting from January 2005, Woodpoint has operated as a separate unit of the Forestry Centre with the requirement to finance its operations entirely through external funding.



Simons Element at Vöyri produces both traditional house block packages and turnkey solutions on two separate lines.

Photo: Sini Saares.



House manufacturers and subcontractors operate in a close partnership. Photo taken at SHR-Produkt in Pedersöre. The company specialises in manufacturing roof grids.
Photo: Mårten Lövdahl.

The most important financiers are the Ostrobothnian Employment and Economic Development Centre, The Ostrobothnian Regional Council, companies and municipalities. The longest standing partner has been the Division of Rural Affairs of the Ostrobothnian Employment and Economic Development Centre with its set of development tools for small rural companies. Woodpoint has also participated in a development project funded by the European Social Fund.

The Ostrobothnian Regional Council has provided another financial pillar since 2001 enabling cooperation with larger partners as well. In addition, Woodpoint manages the Domus ad Danmark project for promoting the export of wooden houses to Denmark.

202 out of the 250 companies in the wood sector in the region of Ostrobothnia are paying members of Woodpoint. According to the decision by the Board, the annual membership fees range from 50–250 euro depending on the size of the company. Membership fees are an important part of the private funding share but the paying members also use the services of Woodpoint thereby expressing their desire to develop activities. Tailored and other services for individual companies are separately charged.

The member companies of Woodpoint have a strong say when deciding about the activities and unit leadership. The Executive Board of Woodpoint consists of eight wood entrepreneurs that decide about all operative activities. The Board of Directors of Woodpoint consists of representatives of the financiers, cooperation partners and Executive Council.

Services of Woodpoint

The focuses of the member companies of Woodpoint include sawing and planing, construction and decoration carpentry, manufacture of wooden houses, compo-

nent industry and wooden packages. Woodpoint offers the following services to its member companies:

- Acts as a network and a connecting hub in the wood sector.
- Provides advice and offers action packages in central areas, such as technical issues and production, marketing, obtaining financing and investments.
- Provides the wood sector portal www.woodpoint.fi.
- Publishes the quarterly magazine Woodpoint-bladet.
- Organises field trips, joint stands at fairs and exhibitions and trips for collecting information from abroad.
- Organises courses.

Over the years the activities have centred especially on marketing, technical issues and financial advice.

The personnel of Woodpoint consists of four persons, each an expert in his/her respective field. The Unit Director is responsible for running operations as a whole and for the financing. The Coordinator handles mainly investment issues and is currently also in charge of the Domus ad Danmark project. The Technical Adviser provides assistance in production technology, machine acquisitions, bids for tendering and new innovations. The Marketing Adviser promotes customer contacts, helps in the planning of advertising and edits the magazine Woodpointbladet that has a readership of about 1 500 subscribers.



NEW TECHNOLOGIES AND DEVELOPING DISTRIBUTION CHANNELS INCREASE THE USE OF WOOD ENERGY

The change is under way, wood energy is now seen as a wider concept than a few years ago. The energy advice and innovation of the forestry centres has been fruitful.

Measures to promote the availability and markets of firewood and forest chip play a crucial role in the strive to promote the use of wood energy.

The Forestry Centre of North Karelia has carried out several projects promoting the use of wood energy. At best, the Roihu (Blaze) 2 project for developing wood energy markets in 2004-2006 is active. The aim is to promote the availability of energy wood by advising forest owners, developing the operations of forestry service providers and by offering network services for the consumers and processors of energy products. The project is financed through the Objective 1 programme of the EU and by the State, municipalities, the participating companies and by the Forestry Centre.

By the end of 2005 308 entrepreneurs had participated in the operational network and tailored advice had been given to 233 forest owners. The operative area is the region of North Karelia with the central idea to set an example for national development activity.

Knocking on screen to get wood

Choppings make up most of the solid wood fuel of the primary sources for wood energy both in quantity and commercial value. About 6,1 million cubic metres of choppings were used in Finland in 2001. At the time, the use of choppings in North Karelia was 360 000 solid cubic metres, these days this figure is estimated already at about 400 000 solid cubic metres.

A commercial market for choppings has also emerged but the problem with the producers has been their poor knowledge of the choppings market. On the other hand, the buyers have not known where choppings could be bought in general. An energy wood portal, MottiNetti (www.mottinetti.com), was set up on the Internet in cooperation with the North Karelian energy operators. The portal makes it easy to buy and sell choppings.

During the Roihu 2 project the operations have gained a foothold in North Karelia and at the end of 2005 there were 67 chopping contractors in the seller net. The buyers of choppings have also discovered the service, with

more than 100 000 visitors in the MottiNetti portal in 2005.

The network services have expanded to cover the entire country. Corresponding portals operate in Ostrobothnia and Kainuu (www.halkoliiteri.com) and in Lapland (www.polttopuuporssi.fi). The forestry centres have played a key role in developing the service. In North Karelia, the main cooperation partners have been Pohjois-Karjalan Sähkö Oy (North Karelian Power) and the Finnish Forest Research Institute.

Know-how for fuelling the business

The second part of the Roihu project is to produce energy wood onto the market through cooperation between the forest owners and forestry service providers. The use of chip is promoted by e.g. developing heat entrepreneur activity. There are currently 22 heating targets in North Karelia serviced by heat entrepreneurs and the rate of planning new targets is 2-3 per year.

At the end of 2005 the heat entrepreneurs in North Karelia were using chip at a rate of about 20 000 solid cubic metres per year. This figure is significant since nearly all this chip is produced from targets undergoing tending of young stands. Thus, heat entrepreneurship is also important for promoting good silviculture.

A marketing forum for targets for harvesting of energy wood has been developed in MottiNetti to help heat entrepreneurs and other forestry operators to acquire wood. This service has been welcomed among the forest owners as well as among the forestry operators. One of the operational aims has been to develop the use of forest resource data and thus increase the impact of forest management planning.

This development has led to establishing a joint network service for the forestry centres in 2005. The name of this new service is Metsään Palstat (Forest Lots). National activity will be launched in 2006. Metsään Palstat is the first national network service designed for both forest owners and forestry operators, e.g. forest management associations, forestry and energy contractors and forest companies.

This service helps improve the use of forest management data in forest companies. The service is available at <https://palstat.metsakeskus.fi>.

Crowns provide opportunity for several operators

The harvesting of forest chip has developed rapidly. In North Karelia the harvesting of crowns started on a wider scale at the beginning of the millennium and in 2005 more than 100 000 solid cubic metres of crown mass was used in North Karelia. The volumes could be larger but there are no large forest industry plants using forest chip in the region. The increase in the use of forest chip stems largely from a few chip heating plants and municipal heating plants supplying energy to the towns and cities.

Several methods are used for harvesting crown chip. The Roihu project has developed a work method that combines the harvesting of crowns with preparation of the soil for artificial regeneration. Thus, the development of the acquisition of energy wood has also contributed to the technology of artificial regeneration. This operational model has resulted in lower regeneration costs and the forest owners have been pleased with both the quality of the work and its cost. The use of the method has spread beyond the regional borders, e.g. to Middle Savo and will also be introduced in Kainuu during this year. Discussions about launching commercial production are conducted with the equipment manufacturer.

Future aims

The use of choppings in households will increase and paid services for acquiring choppings will be used more instead of chopping one's own wood. The market for industrial production of choppings is rapidly expanding, which creates new possibilities for technological development in the production and distribution of choppings. One of the possible developments may be to apply sawing techniques in the production of choppings and the transportation logistics of food retailing or waste management in their distribution.

The marketing of targets for harvesting of energy wood and related services has been opened on the internet. The application possibilities for this operational model are wide. Distribution of information through the internet will be expanded to other work in the forests as well. The aim is to distribute information evenly to all forest and forestry operators. This will help create new forestry business, new products and new possibilities for developing the services.

The technological and logistic development of crown mass and stump harvesting has not reached its saturation point yet. The changing wood market situation, possible decrease in the sawing capacity and the growing demand for energy wood keep the pressure on for developing the technology and harvesting logistics further. The forest industry will most likely supply its own plants with forest energy independently, but the challenge lies in securing the energy supply for towns and cities and other fields of industry on an equal and competitive basis.



The harvesting of felling residue can be integrated into the chain of forest regeneration and thus lower the costs. The machine in the picture can prepare the soil while transporting the crowns. One machine - two functions; not only a technical but also a logistic innovation. Photo: Heikki Karpinen.

Yrjö Niskanen, Development Manager
Esa Lappalainen, Forestry Adviser
Forestry Centre of South Savo

THE COTTAGE FORESTER TO SUPPLEMENT TRADITIONAL FORESTRY SERVICES

There is a lively demand for forestry services. The cottage forester network provides a personal caretaker for your forest through putting the forest owners in need of forestry services in touch with the forestry operators offering them.

Cottage maintenance, snow ploughing, construction work, forestry and silviculture operations, logging and chopping of wood, clearing of building sites etc. – the work list for a cottage or forest owner is long.

The Cottage Forester (Metsätalkkari) project aims at developing a network between the forest owners in need of forestry services and the local forestry professionals offering such services.

The Cottage Forester project launched in South Savo in 2004 operates in the municipalities of Rantasalmi, Juva, Puumala, Sulka and Joroinen. The project is funded by the EU and approved by the RAJUPUSU Leader group.

The LEADER+ programme is a rural development scheme funded by the EU, the State and municipalities that complements and enhances other rural development programmes, especially through its local activity and varying mix of operators.



Mauri Kiiski shows Marjatta and Sakari Ylönen how the blade of a clearing saw is sharpened. *Photo: Esa Lappalainen.*



The cooperating partners in the project are Forestry Centre of South Savo, the forest management associations of East Savo, Middle Savo and Forest Savo and Savonlinna Vocational College Varpala School of Forestry. Cottage foresters from all municipalities of the operating area are involved in the project.

Active network

The cottage forester may be a forest owner living in the area, his/her family member, a professional forester, forestry operator or other such person with an interest in working in the forest. The cottage foresters provide e.g. services for performing various forestry or silvicultural operations, for forest damage inspections or for chopping fire wood.

The target customers are especially the forest owners who do not live near their forests. The cottage forester tasks provide employment for a few weeks or months during the year. Personal activity and professional skills of the Cottage Forester play a central role.

The project aims at creating a permanent operational model and a network for continuing and expanding the work of the cottage foresters independently even after the project ends.

www.metsatalkkari.fi finds your man

More than 30 cottage foresters are involved, some work as forestry service providers, others are employed by the Forest Management Association. The project has striven to encourage the operators to specialise and market their skills more effectively. The most active cottage foresters have invested in new machinery and expanded their activities during the project.

The cottage foresters have received training in e.g. forest certification, marketing, product packaging and entrepreneurship. The cottage foresters usually have a solid background in forestry work. The training has centred on particular areas of development and also introduced completely new types of work to the participants.

The project has also improved the know-how of foresters e.g. with regard to managing the clearing of building sites.

The cottage forester project has provided a market place on the internet at www.metsatalkkari.fi for finding a suitable contractor for the work in hand.

The forest owners in the region have been sent tailored marketing letters about the importance of tending of seedling stands and young forests, with a reference to the cottage forester network for performing the work. The results have been varying, in some areas only some new work has been generated, whereas in other areas an active contractor operating as a cottage forester has been able to realise more than 80% of the marketed work for tending of seedling stands.

MULTIPLE USE OF FORESTS SUPPORTS RURAL ENTREPRENEURSHIP

Development of forestry entrepreneurship and forestry as business are in the focus of both national and regional programmes. In Kainuu, a growing demand is predicted for forester entrepreneurship especially.

Improvement of the operational conditions for rural businesses through new operational models is emphasised in the rural policy programme of the 2003 Government Platform. The Regional Development Programme for Kainuu also lists development of forestry entrepreneurship and forestry as business among the central areas of development within the forest cluster. The aims of the National Forest Programme and the Kainuu Regional Forest Programme also underline training and development of the labour force and entrepreneurs in the field. Forestry entrepreneurship is the first priority in the Kainuu Forestry and Wood Work Programme.

There is an increasing amount of work in the rural areas that is insufficient for generating business activity or full-time employment. Nevertheless it would be socially significant to do this work. New means are required in order to achieve this aim, e.g. support for entrepreneurship as well as utilisation of work cooperatives and contracting systems.

Forest as a livelihood

There are about 15 000 forest estates in Kainuu out of which only about 1 200 still practice also agriculture or farming. When agriculture or farming ends other substituting sources of income must usually be found. More extensive utilisation of forestry and other secondary sources of income provide an opportunity for the estate to remain habited and in active use.

In Kainuu, considerably more forest owners could make a living out of their forest if forestry and silviculture operations were performed more actively and effectively than today. Good silviculture enables establishment of economically viable forest estates for families. Thus, depopulation of rural areas could be slowed down. The about 90 forest estates in the region that have an area of more than 250 hectares give ample opportunity for realising this scenario.

In the Kainuu regional and forest programmes, new sources of income are sought in e.g. processing of or-

ganic and natural products, versatile adventure and nature travel and ecotourism, and utilisation of renewable energy forms, such as forest energy, in the future.

The possibilities for developing nature travel in the area are good and the work is carried out e.g. through the pilot project for Kainuu nature travel. The top attractions include bear watching packages in Kuhmo and Suomussalmi.



Jussi Määttä of Kuhmo is planning to set up his own business. He is participating in a course for tending of seedling stands and for operating a clearing saw.

Photo: Rainer Haverinen.

Moreover, there is strong development work in the food industry based on natural products in the region. The local food serves as a tourist attraction, for example the traditional Kalevala banquet table reflecting the culinary cultural heritage and tested as an experience product. Thus, multiple use of the forests provides various possibilities for building rural entrepreneurship around multiple services.

Demand for forestry service providers

There is a growing demand for contractors providing forester services. The change in the forest sector is continuous, organisations aim at leaner production structures and centre around their core business.

In forestry, mechanised services such as soil preparation, timber harvesting and transportations have long been produced based on contracting with business operators. The trend is similar with regard to traditional manual seeding and silvicultural and forestry operations. Mechanisation is gaining ground in artificial regeneration and silviculture. However, it is not possible to ever fully replace the need for manual labour by machines.

Also the needs of private forest owners are changing as a result of aging, generation changes, urbanisation and a growing share of female forest owners. Professionally competent forestry service providers are needed for tending one's own forests. The aims for tending the forest property are growing also in Kainuu in the period of the Regional Forest Programme.

In other words, there is work to be done in the forests but the future supply of labour in forestry is a growing concern.

Development activities for forestry entrepreneurship in Kainuu

The Forestry Centre of Kainuu has taken on this challenge and carried out several projects for developing forester entrepreneurship. In 2000–2002 the focus of development was on a project promoting the employment of forester entrepreneurs in a cooperative and the following project centred on drafting a quality manual for a forester entrepreneur.

The development activities for forester entrepreneurship are continuing in Kainuu with the intention of introducing forestry entrepreneurship more visibly as a source of income for the region and for the rural entre-

preneur. A new development project, Versatility into Rural Business – Forest as a Source of Income in Kainuu was launched in autumn 2005 from this basis.

Interest in multi-service business

The aim of the development project is to increase the number of entrepreneurs providing forestry services with special competence in practical forester work in Kainuu. The target group includes all parties with an interest in forest estate, forester and rural multi-service entrepreneurship. The project is also looking for answers to the challenge of seasonality in forester work through encouraging multi-service entrepreneurship: In the wintertime the business activities can centre e.g. on the production of heat, operation as cottage forester, road management, or nature travel services according to the skills and interests of the business operator.

Persons interested in becoming entrepreneurs receive advice and guidance in planning and starting their business. At the same time, this activity promotes networking of the businesses and the various operators.

Professional skills in forestry and general business knowledge are developed through training. The business training is carried out in cooperation with the Kainuu Employment and Economic Development Centre with sessions organised around the region of Kainuu.

The project is charting the readiness and possibilities of 50 potential entrepreneurs for setting up individual businesses or for expanding or diversifying their business activities. 10 training sessions are organised for entrepreneurs or potential entrepreneurs with the aim of attracting about 100 participants. The main aim is to achieve an increase of at least 10 person years in the regional entrepreneur sector.

The Forest as a Source of Income in Kainuu project is funded by the European Agricultural Guidance and Guarantee Fund (EAGGF) with partial financing from all municipalities of Kainuu, UPM-Kymmene Oyj, Stora Enso Oyj, Metsäliitto Cooperative, Tornator Oy, Metsähoitoyhdistys, Kajaanin Metsäpalvelu Oy, Kuhmon Metsäkontio and Metsäpalvelu Karhu, Kainuu Association of Forest and Earth Moving Contractors, Kainuu Union of Forest Owners and the forest management associations in the region.

ACT ON THE FINANCING OF SUSTAINABLE FORESTRY DIRECTS GOOD SILVICULTURE

Good silviculture is a wide aim. Through the Act on the Financing of Sustainable Forestry it is possible to support the traditional silvicultural and forestry operations for ensuring sustainable production of timber as well as activities promoting forest biodiversity.

The Act on the Financing of Sustainable Forestry was drafted to regulate the incentives that the State provides to landowners for promoting silviculture and forestry operations in private forests.

The types of work eligible for financing have in principle remained nearly the same for decades. The terms of financing and detailed terms of the types of work have been amended according to what has been considered to increase the interest of landowners in managing their forests the most.

In the current Act the types of work eligible for financing are forest regeneration, prescribed burning, tending of young stands, harvesting of energy wood, remedial fertilisation, ditch cleaning and construction of forest roads. In addition, funding is available for repelling of root-rot disease and for chipping of energy wood. In addition, environmental support and financing for forest nature management projects may be granted for maintaining forest biodiversity.

The majority of the activities promoting the Forest Biodiversity Programme for Southern Finland (METSO) are financed through this Act.

Aims of the Act

The aim of State financing is to ensure realisation of the long-term investments required by forestry by supporting the landowners through funding for planning and realisation of the work. In recent years the public funding has consisted almost entirely of grant type support. The total costs of the work eligible for support are about 100 million euro per year, out of which the share of State support amounts to about 60 million euro.

The annual need for State financing was estimated in connection with the drafting of the National Forest Programme in order to reach the silvicultural and forestry work aims in the Programme. After approval of the Forest Programme the level of State support was raised to correspond to the amount presented in the Programme and funds have been appropriated in the State Budget

each year for these types of work according to the aims of the Forest Programme. After approval of the National Forest Programme, funding has also been obtained for covering the amendments to the financing terms, for new types of work eligible for support and for the unexpectedly extensive forest regeneration projects due to forest devastation by storms during the Programme period.

The annual results for completed work in silviculture and forestry are affected by the operation of the timber market. The extent of tending of seedling stands supported by the State is proportional to the extent of fellings - although with a delay of a few years. On the other hand, basic forest improvement, such as construction of forest roads and ditch cleaning promote the management and use of forests in areas where the timber stock would not be utilised without public support. By directing public financing into regeneration of forests with sparse timber stands or stands of species with low value, regeneration of forests with good timber production capacity and thus full-scale utilisation of forests suitable for economic use are promoted.

Fellings of mature stands have remained at a high level during the Forest Programme Period, which has also reflected into the silvicultural work results. The campaign for tending of young stands in 1998–2002 and the following campaign for good silviculture boosted the growth of the work results in tending of seedling stands and young growing stands from the low figures of the mid-1990s through advice. It was necessary to revise the terms of the Financing Act at this stage in such a way as to also allow State support for successful realisation of the campaigns, which contributed to doubling the work results.

The interest in increasing the use of wood energy has grown in line with the national aims set for the use of renewable energy. Promotion of the harvesting and chipping of energy wood has been considered also when revising the financing terms. Each year, more than 40 % of the State financing is used for silvicultural operations in young forests and for harvesting and chipping of energy wood.

As a measure with long-term effect on the health of forests, the terms for granting support to repelling of root-rot disease were revised in the beginning of the term of the National Forest Programme. In this way, continued summer fellings could be ensured on sites marked for felling but having a high risk of spreading root-rot disease. Uprooting of stumps serves both as an efficient method for repelling root-rot disease and as a way of increasing the use of energy wood. However, the use of this method requires further studies.

In the National Forest Programme it was proposed that the focus of forest road construction be moved from the construction of new roads to improvement of the existing forest road network. The requirements and terms of financing of basic improvement of forest roads were revised in the beginning of the Forest Programme period, which resulted in raising the interest of landowners into basic improvement of forest roads. Moreover, the Ministry of Agriculture and Forestry has paid special attention to not approving financing applications for the construction of forest roads on one estate only without especially valid cause in its annual decision on the appropriation of the funds. Consequently, the share of basic improvement out of forest road construction is already more than 80 per cent.

More precise criteria for evaluation of targets for ditch cleaning

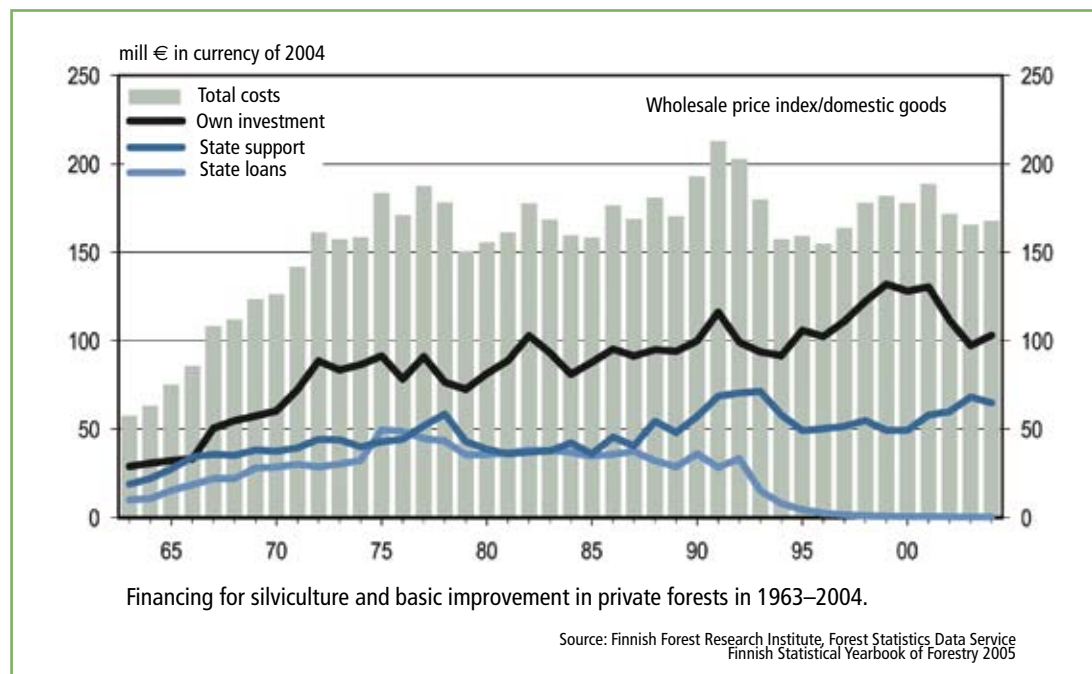
The work results in ditch cleaning have not grown as estimated during the Forest Programme period. Low de-

mand for pulpwood pine and more difficulties in the setting up of joint ditch cleaning projects covering several estates in comparison to the earlier ditch cleaning projects have resulted in the annual work results remaining at about 60–70 per cent of the aims set in the Forest Programme.

There are several reasons behind this phenomenon. The profitability of forestry in ditched areas is on the average lower than on heathlands. The harvesting costs are high and the planning and execution of ditch cleaning and water protection operations require expertise.

In the future, work productivity must be raised by improving the work and planning methods. The Finnish Forest Research Institute has been given the task to study what is the share of ditched areas where the water economy remains balanced by mere fellings and which areas would require both ditch cleaning and fellings. This will require precise inventory of the ditched areas and creation of inventory criteria for the practical operators.

Based on the study of the Finnish Forest Research Institute, it will hopefully be possible to direct public support for ditch cleaning operations in such a way that productivity is raised and the landowners become more interested in the management and use of forests in ditch cleaning areas.



CURRENT FOREST MANAGEMENT PLANNING DATA AS A TOOL FOR ADVISORY SERVICES AND OPERATIONAL PLANNING

The role of current, comprehensive and accurate forest management planning data is crucially important when making decisions about the management and use of forests. The availability of current data improves the effect of advisory services, the quality of silviculture and cost-efficiency.

The aim of a project started in Inner Savo is to develop a method for keeping the forest management planning data and the action proposals continuously up to date with regard to the changes in the forest. In addition, a study will be conducted on the effects of up-to-date forest management planning data on the silvicultural activity and on the quality and quantity of fellings and silvicultural operations.

The development project is financed by the North Savo Employment and Economic Development Centre and it is carried out in cooperation with the Forestry Centre of North Savo, Finnish Forest Research Institute, Forest Management Association of Inner Savo and forest companies. The project is led by the Forestry Centre and it will be carried out in 2004–2007. The project is financed through the European Agricultural Guidance and Guarantee Fund (EAGGF).

The project is targeted mainly to the primary phase of forest growing from forest generation to first thinning. The felling and silvicultural propositions for young forests are pinpointed within one year in connection with the initial inventory for the first five-year period, which is a different practice from standard forest management planning.

Tailored action programmes for each estate are produced from the proposals and their realisation is monitored based on the annual data updates.

The forest owners in the project area are kept up to date with regard to the needs for action in their forests by annual information bulletins and follow-up reports. The data in the action programmes is available for other actors in the forest sector at the forest owner's discretion.

Solmu data as the basis

Three areas of different age planned by the Solmu method were originally selected as pilot areas for the project. The Solmu method is a pc-based, tailored map

and location application used by the forestry centres especially for forest management. In spring 2006 the project was extended concerning more precise definition of actions to cover all areas designed for planning at the Forestry Centre in Inner Savo. The extension was necessary in order to raise the number of updates processed in the project to a sufficient level for testing electronic updating.

According to preliminary experience, the forest management planning data based on Solmu can be used as the base material for the updating method. The description differences in the data due to the various ways of the forest management planners to perform their field work make the data somewhat more complex to use. All data should be collected in the same way in order to facilitate the computer processing and make it more accurate.

Timing of the actions within one year proved to be a more demanding task than estimated in the initial inventory of the project. Determining the urgency of an action within a period of five years can be done by most planners optically but if the time window is one year, thinning models and growth forecasts will have to be used to help. Solmu-data that is originally collected in the right way creates a good basis for accurate timing of the actions.

Challenging updates

Also electronic updating is tested along with manual updating in the Accurate Forest Management Planning Data development project. The programming work in the project is the responsibility of Bitcomp Oy. The aim is to develop an updating program for updating the database either through a normal wire connection or through the internet or telephone network, or even through a mobile telephone.

Acquisition of comprehensive update information has often been found problematic. In this project the basic sources of information for the updates are the forest

use declarations given to the supervisory authority at the Forestry Centre and the implementation reports on forest regeneration and tending of young stands. The data received from these declarations is complemented by implementation data requested directly from the forest owners. The project will also pilot the possibility to transfer the information on silvicultural operations carried out by forest management associations directly from the database of the forest management association to the database of the forestry centre.

Effects of current data on silviculture

In the project, the Finnish Forest Research Institute studies the difference in the silvicultural activity in the traditional and continuously updated areas and strives to establish the operational reliability of the growth models.

The data on silvicultural activity is obtained by comparing the amount and quality of silvicultural and felling work in the traditional and updated areas. In order to establish the operational reliability of the growth models nearly 100 test plots were measured in the summer of 2005 in four different sections. The most interesting research results are likely to be obtained from the test plots of young and mature growing stands of artificially regenerated spruce on Oxalis-Myrtillus type soil. These types of stands and soils have a significant role in the forestry of North Savo.

Results of the development project

The Inner Savo development project is near its midpoint and the project has moved from the early stages to active updating. Concrete results already exist. On nearly 20 000 hectares, the forest owners in the project area

have received or will receive action proposals timed within one year for tending of young forests and for felling on their estates.

In addition to the forest owners, the action proposals also benefit other operators in the forest sector, since accurate proposals enable immediate launching of marketing activities for the services and starting of actual work even before a preliminary visit to the site. The experience can also be used for developing the internal data systems.

Regional summaries of the action proposals give much more detailed information about the annual needs for silvicultural operations and first thinnings for each village. This, in turn, improves the possibilities to estimate the employment potential in forestry and the local need for labour and machinery. It is also possible to concentrate first thinnings and silvicultural operations better than before.

Moreover, the project offers an opportunity to estimate which tasks should be performed by each operator separately, which tasks call for cooperation and which tasks should be outsourced with regard to the data systems. In the best case, the project will create an operational model for forestry for updating the "basic information", i.e. regional forest management planning data centrally, in cooperation and in a cost efficient way.

The final beneficiary of successful solutions is the forest owner. The quality of advisory services will improve and more efficient data system maintenance of the operators will lead to cost savings. From the societal angle, the benefits of the new operational model will be visible as a stronger impact of better quality forest management planning data and advisory services on the management and use of private forests.



Current forest management planning data improves the planning and timing of silvicultural and felling operations as well as the effect of advisory services.

Photo: Hannu Huttu.

INTRODUCING THE POSSIBILITIES OF SUSTAINABLE FORESTRY TO THE FOREST OWNERS

Personal advice was found to work best in the Sustainable Income from the Forests (Markkoja Metsästä Kestävästi) advisory project by the forestry centres of South-East Finland, Häme-Uusimaa and Coastal Areas.

The project was launched as a part of the Regional Forest Programme for South-East Finland 2001–2005 which emphasised the significance of giving advisory services to the forest owner in the promotion of sustainable forestry. The aim of EU development projects was formulated as follows: "Development of cooperation in advisory services in order to enhance the forest owners' use of their forests." There were or had been projects with similar aims in other forestry centres, which made it easy to find a common aim.

All central interest groups in forestry were involved from the start. The basic themes of the project were agreed as follows:

- Some of the forest owners have remained outside effective forestry advice due to the lack of resources in advisory services and the change in the structure of the forest owners.
- The target groups include heirs, new forest owners and forest owners with forests of more than average need for silvicultural operations and improvement. These forest owners have usually not had contact with forestry operators in a long time.
- The project is carried out as a joint cross-regional project in the areas of the forestry centres of South-East Finland, Häme-Uusimaa and the Coast, since many of the forest owners in these regions live in the metropolitan area of Helsinki. Another advantage of a joint project is more efficient administration.
- The main activities consist of tailored advice for individual estates and group advice. The project also published its own information bulletin, "Mene metsään" (In the Sticks).

The Forestry Centre of South-East Finland led the project with the South-East Finland Employment and Economic Development Centre coordinating the financing. A Consortium Agreement was signed with the forest management associations of South-East Finland, Forestry Centre and forest management associations of

Häme-Uusimaa and Forestry Centre of the Coast, as directed by the Employment and Economic Development Centre. The other cooperation partners were Stora Enso Oyj, UPM-Kymmene Oyj and Metsäliitto Cooperative.

Excellent results

It was already known that personal advice to the forest owner gives the best results, and the calls to the forest estates made during the project confirmed this. 3 453 calls, 2,21 million cubic metres of felling proposals for 20 629 hectares and silvicultural or nature management operation proposals for 22 177 hectares were made in the project.

The estate calls reached 6,5 per cent of all forest owners in the region (In South-East Finland even about 10 per cent), in other words the project reached a significant share of the forest owners. In addition, the forests of these forest owners were among those with the most urgent need of tending and fellings.

The employment potential of the proposed fellings and silvicultural operations is more than 400 person years.

The impact of the project was studied through an interview questionnaire to the forest owners. 321 forest owners or about 10 per cent of the called estates participated in the questionnaire. According to the results the agreed work has been or will be realised for more than 90 per cent.

Group advice remained slightly below the target due to insufficient demand. 66 group advice days were organised with more than 1 500 participants in total.

Product packaging of the basic advisory services for the forest owners is an important result of the project. This includes creation of advisory material and group advice courses and especially permanent resourcing for advisory services to the forest owners in the metropolitan region of Helsinki.



Forestry adviser Jouko Porkka and Emil Suomalainen, forest owner of Nuijamaa, on a site for tending of a seedling stand of spruce.

Photo: Timo Weckroth.

Evaluation of the project results

The steering group for the project held its final meeting in April 2006 and concluded that the project had succeeded very well. At the same time the steering group emphasised that in **addition to the concrete actions** - the completed and ongoing felling and silvicultural operations and the effects of these **on employment** – it would be important to continue the good practices and operational models identified in the project.

The following items are highlighted for future action:

- All central forestry operators (forestry centres, forest industry and forest management associations) should cooperate in advising the forest owners also in the future.
- The “products” created in the Sustainable Income from the Forests project (improvement and maintenance of the basic knowledge of the forest owner by personal advice, consideration of the special target groups of forest owners living in the Helsinki metropolitan area and the young) shall be developed further and put into practice.
- The financing shall be secured by joint funding by the operators. In addition, the financing possibilities in the new EU programme period shall be studied.

All operators involved in the project shall promote these principles of activity also in the future. Each operator will decide independently about participation in new projects. It is important to establish the practices as a part of normal activity.

IMPROVEMENT OF PRIVATE ROADS IN RURAL AREAS

Maintenance and development of private roads require financing but especially know-how in road management administration. The road cooperatives have a central status since private roads are an important part of profitable forestry and viable rural communities.

Private roads are an important part of the transportation network of Finnish forestry. Most of the raw material for the forest industry and for generation of energy based on the use of wood starts its journey along these veins. Private roads are a necessity both for the industry and for the forest owners producing timber along them.

This fact has also been recognised by the government. The State supports the construction and improvement of a forest road network serving especially the needs of forestry through the Act on the Financing of Sustainable Forestry.

Private roads also provide important connections to the people living and working in rural areas. Viable and populated rural communities promote the possibilities of forestry to obtain labour for silvicultural tasks and timber harvesting also in the future.

Condition of the roads has deteriorated

The condition of private roads has deteriorated since the economic recession years in the 1990s. There are several reasons behind this. Public funding allocated for road maintenance has declined, migration from rural areas into the cities has gained momentum and aging of the population also has an effect. It is especially worrying to note that the know-how regarding road management is diminishing, in some cases even lacking entirely.

The forestry centres are important operators with regard to the private road network. This is especially true regarding forest roads but also applies to the rest of the private road network. The Forestry Centre of Lapland recognised the problems of private roads in the late 1990s and launched a project for their improvement (Yksityistiet kuntoon). The project "Improvement of Private Rural Roads 2002–2006" (Maaseudun yksityistiet kuntoon) was planned based on the results of this pilot project. The work in the new project was started in October 2002. Similar projects have since been launched in other forestry centres as well.

The aim is to improve road management know-how

The aim of the project is to centre especially on the deficiencies in the know-how regarding road management. These deficiencies concern administration of the private road cooperatives, road maintenance and basic improvement. The emphasis is on road cooperatives operating around permanent habitation. The services of the Forestry Centre benefit the road cooperatives eligible for financing according to the Act on the Financing of Sustainable Forestry for road construction and basic improvement.

The know-how is improved by information and advice, by producing services directed to the customer road cooperatives, by organising training and by developing cooperation.

A network of road managers has been created to Lapland to serve private road cooperatives even after the project. The creation of the road manager network is the principal responsibility of the Finnish Road Association, whereas the Forestry Centre operates as a partner to the Road Association.

The project was started by listing the road cooperatives to which the services of the project could be marketed. 22 information sessions were held for the road cooperatives in various parts of Lapland in the 13 municipalities that participated in the financing of the project. Information about the services of the project and about the financing possibilities from various sources was given in the sessions.

In total, 407 representatives of road cooperatives, village committees and municipalities participated in the information sessions. Contacts with most of the customer road cooperatives later committed to the project were established in these sessions.

Activation of road cooperatives

In four years, 120 private road cooperatives were admitted as customers in the project. A major part of these road cooperatives were in a dormant state, in

other words the cooperatives were reactivated in the course of the project.

The services directed to the customer road cooperatives include e.g. organisation of cooperative meetings, determination of cooperative memberships, updating of road unit allocation and drafting of plans for basic improvement of the roads.

Plans for basic improvement of the road will be made to about 80 road cooperatives during the project for a total of about 240 kms. Own funding from the road cooperative shall be distributed evenly to all members of the cooperative. Proposals for allocation of the road units have been drawn up for nearly every cooperative who had plans made for basic improvement of their road.

Nearly all cooperatives with a plan for basic improvement of their road were eligible for public financing for carrying out the work. The majority of this support is granted according to the Private Road Act. Another channel for financing is the theme funding by the Lapland Employment and Economic Development Centre for development of lesser rural roads through the European Agricultural Guidance and Guarantee Fund (EAGGF). The share of EU out of the project funding is 45, whereas the State is responsible for 30 and the municipalities for 15 per cent. The share of private funding is 10 per cent which is collected from the road cooperatives and from the participants in the training as charges for the services of the project.

Training for the road cooperatives and creation of the road manager network are an integral part of the project. In 2004 and 2006 20 training sessions were organised for operators in the road cooperatives. Nearly 350 persons have participated in the training.

The training for road managers was organised in 2005 with 9 Laplanders participating and starting business activities in 2006.

Both parts of the project are managed by the Forestry Centre of Lapland. Cooperation with the various interest groups is a cornerstone of the development project. In addition to the road cooperatives of Lapland the most important interest groups are the municipalities participating in the project, the Lapland Employment and Economic Development Centre, the Finnish Road Administration, the Finnish Road Association and the entrepreneurs and trainers offering services to the road cooperatives.

New type of entrepreneur – the road manager

120 private road cooperatives in Lapland have been activated in the course of the project. Those handling administration in the road cooperatives have been tutored and trained to maintain regular operations even after the project. These road cooperatives also set an example to the other road cooperatives.

The projects have also produced basic improvement plans for private roads and given guidance to the road cooperatives with regard to solving financial questions. Realisation of the plans is well under way and the improved roads relay the message about the benefits of active operation.

The new type of entrepreneur, the Lapland road manager, continues the work initiated by the project as an independent contractor by informing about the services available to the road cooperatives and by actively offering his own services.



In addition to forests there are holiday cottages and permanent housing in the service region of the Lusmanniemi private road in Inari.
Photo: Sirpa Ollila.

Juha Rautakoski, Director of Operations
Forest Management Association of Kalajokilaakso

JOINT PROJECTS IMPROVE PROFITABILITY IN DITCH CLEANING

An operational model that improves profitability in ditch cleaning projects has been developed in North Ostrobothnia. The aim is to perform all necessary operations in the forest owner's peatland forest in one go.

The service developed by the Forest Management Association of Kalajokilaakso and the Forestry Centre of North Ostrobothnia includes clearing of ditch lines, digging of the ditches, the necessary **fellings and silvicultural operations**, nutritional studies through needle samples and remedial fertilisations. The timber is harvested by the Forest Management Association and sold as a joint sale.

The operational model was created as a result of the project Income from the Forest (Toimeentuloa metsästä) of the Forest Management Association of Kalajokilaakso, that was realised with financing from the

North Ostrobothnia Employment and Economic Development Centre, local municipalities and forest management associations in 2001–2005. The Forestry Centre of North Ostrobothnia and the Finnish Forest Research Institute participated as cooperation partners.

The basic idea of the service product for comprehensive tending of peatland forests was to get all services through one channel. The Forest Management Association and the Forestry Centre select an area of peatland forest that requires ditch cleaning, other silvicultural operations and felling. A suitable number of estates is between 10 and 20, depending on their size.



Timber harvesting, ditch cleaning and remedial fertilisation are most cost-effective when performed simultaneously.

Photo: Pekka Väisänen.

Joint project with a personal touch

The Forest Management Association and the Forestry Centre select the persons responsible for the project. These persons get in touch with all forest owners in the chosen area and agree about a joint or a person-to-person meeting. Before the face-to-face meetings the Forestry Centre compiles the forest management planning data for the area. This data is used to prepare in advance a written cost and income estimate for each estate that can then be presented to the forest owner at the meeting.

Each forest owner in the area receives an estimate of how much the project will cost, how much State support it will receive and what the income from the sales of timber will be. The joint project is thus launched with a separate agreement with each forest owner.

The Forestry Centre handles the planning of the ditches and the possible bank road and in due time also the digging of the ditches. The Forest Management Association in turn is responsible for clearing the ditch lines and performing the necessary thinnings according to what is agreed with each forest owner. The Forest Management Association also markets the roundwood on behalf of the forest owners. The Association is also responsible for the necessary sampling for nutritional tests and for remedial fertilisations.

The first joint project according to the new operational model was implemented at Keltamaa in Kantokylä, Ylivieska, where the work is in progress in a peatland area owned by 28 forest owners. All the forest owners in the area participated in the project and the feedback has been very positive.

The total forest area at the Keltamaa site is 120 hectares consisting of 32 small forest lots. About 30 kilometres of ditch and three kilometres of bank road to facilitate timber harvesting and other transportation were planned for the area. The amount of marketable roundwood from the area was about 3 500 cubic metres.

Continuation for the work is also actively sought. During autumn 2005 joint negotiations were held in four out of the six municipalities of the operational area. In these negotiations, start of work was agreed for late winter/early spring 2006 for 11 new areas. The ditch lines have been planned and the felling already performed for the first of these.

The “godfathers” for the operational model are the Director of Operations of the Forest Management Association and the Area Manager of the Forestry Centre who handle the joint negotiations together with the field personnel. This practice strives to ensure that the work will actually start in each municipality and that all participants are committed to the operational model.

WHAT IS METSO?

METSO is the Forest Biodiversity Programme for Southern Finland that complements the National Forest Programme. METSO is looking for new solutions for ensuring biodiversity in addition to traditional conservation.

METSO consists of 17 projects, most of which are divided into sub-projects. The topics range from the sawing of the stump of a felled tree producing decayed wood all the way to combinations of the range of means for protecting the forest. The budget for METSO is about 60 million euro. The five-year programme will end in 2007.

METSO is a collection of means. Some of these means are new in Finland and their feasibility in the Finnish conditions is currently being tested. Some means are even tested in several METSO projects.

The starting point for the action proposals of METSO is to improve the protection of special forest habitats and habitats of endangered species and the structural features typical of these from the present level.

METSO is carried out in commercial forests. Basic data from the protected areas is also collected and nature conservation areas are tended and restored.

METSO is a joint venture involving several parties, such as private forest owners, interest groups, forest companies, environmental organisations, researchers and authorities.



Officer Jukka Matilainen (left) of the Forestry Centre of Häme-Uusimaa, forest owner Olavi Leikola and Forestry Adviser Anu Rautiainen of the Forest Management Association of Western Uusimaa pondering questions related to the establishment of a nature conservation area in the village of Vivola at Nummi-Pusula. *Photo: Jari Tenhunen.*

METSO is the topic of conversation both at fireside evening gatherings and at national seminars as well as in the Finnish Parliament.

Already it seems that this experiment has been worthwhile. The experience so far shows that it is possible to find better solutions for ensuring forest biodiversity through cooperation between the local operators, land-owners and administration.

Follow-up and research of METSO

The follow-up of METSO was started at the launch of the Programme itself. The Programme is monitored in seamless cooperation by the Finnish Forest Research Institute and the Finnish Environment Centre. Follow-up reports are issued at every six months.

METSO is further supported by two unique research programmes, Forest Biodiversity and Monitoring Programme MOSSE and the Research Programme for Deficiently Known and Endangered Forest Species in Finland. Other research on biodiversity is also widely evaluated and utilised in METSO in cooperation with researchers from various fields. The results of MOSSE will be available already in the autumn of 2006 and those of the other programme in 2007.

A research programme on the socio-economic impacts of maintaining biodiversity has been launched at the Finnish Forest Research Institute.

Information about METSO

METSO has its own newsletter published by the Ministry of Agriculture and Forestry and the Ministry of the Environment. The newsletter is published monthly or every other month in Finnish and in Swedish and also regularly in English (METSO Newsletter).

METSO has its own website at www.mmm.fi/metso and www.ymparisto.fi/metso. The pages provide up-to-date information about the progress of METSO. In addition, many of the METSO projects have their own webpages.

METSO provides a driving force for change

All of the projects have been started and many have already finished. The peak of the field work was in summer 2005. The monitoring and evaluation results will be ready by the end of 2006 in order to include them in the preparation for continuation of the programmes.

METSO has a lot of unique and special features. The Programme was prepared and is realised by organisations and experts with varying views and know-how about how to ensure biodiversity of the forests. Independent outside monitoring and final evaluation are a part of the realisation of METSO. The public is continuously informed about the progress of the Programme. METSO is a topic for research and the Programme is also supported by research.

With METSO, the discussion about forest protection is moving towards the qualitative issues; what should be protected instead of how many per cent of the land area should be protected. METSO disperses the fears concerning protection and provides channels for positive messages and activities.

Voluntary protection and retaining of ownership have proven to be the key issues with regard to private forests. The various operators have learned how to improve mutual cooperation. METSO can provide a driving force for change and the Programme promotes maintenance of forest biodiversity.

Decisions about continuation for the Programme regarding forest biodiversity in Southern Finland, western parts of the province of Oulu and south-western parts of the province of Lapland will be made in 2007. The final evaluation report will be published prior to this in order to facilitate these decisions.

The follow-up of METSO has already proven the feasibility of a wide range of means and of the principle of voluntary participation that enhances social acceptability of the protection means. Most of the forests in Southern Finland are used for economic purposes. According to the experience already gained through METSO, planning, advice and a good flow of information are essential for ensuring biodiversity in these forests.





FOREST OWNERS APPRECIATE THE WAY IN WHICH NATURAL VALUES TRADING APPROACHES PROTECTION ISSUES

Natural values trading is a new, voluntary means of protection that has been well received. The idea to buy and sell natural values was hatched in the brainpicking session of the Nature Conservation District of Satakunta.

Eager representatives of the district presented their ideas to the Union of Forest Owners of Western Finland and to the agricultural producers of Satakunta, who then continued to process the idea. Preparation for the Forest Biodiversity Programme for Southern Finland (METSO) was begun at around the same time. Conservation measures for privately owned forests based on the forest owner's own initiative were sought for pilot projects in the Programme. The Satakunta representatives presented their idea of natural values trading and the pilot project was flashed a green light at the ministries.

The pilot project for natural values trading was launched in the area of the Forestry Centre of South-West Finland in 2003. The project will extend to the end of 2007.

In natural values trading the forest owner reports a target for natural values trading to the Forestry Centre. An expert of the Forestry Centre then evaluates the natural values of the target. If natural values fulfilling the criteria are discovered at the target, the terms of agreement and amount of compensation are discussed with the landowner.

The agreements are concluded with the Forestry Centre according to the Act on the Financing of Sustainable Forestry or with the Environment Centre according to the Nature Conservation Act. The agreement is concluded for a fixed term and when it expires the landowner is again free to use the area as desired. During the first three pilot years, agreements have been concluded with 93 forest owners on 870 hectares.

Biological conservation criteria

Biological conservation criteria are used in the implementation of natural values trading for evaluating the natural values of the target and for selecting the targets for trading. The criteria steer natural values trading, which on the other hand poses certain terms and barriers to the trading, but on the other hand facilitates the work of the persons involved in the process. It is now known fairly precisely, what is wanted for trading.

In the three years, about 2 500 hectares of different forests have been offered for trading. A large share of the targets fulfils the criteria with some extremely valuable nature targets among them. The trading has concerned mainly heathland forest targets with lots of decayed wood.

Satisfied forest owners

There has been a demand for natural values trading among the forest owners. During the three pilot years, about 250 active forest owners have offered their targets.

The forest owners are satisfied with the methods of natural values trading. Many of the forest owners who have saved their old forests from felling, preserved the conditions for fertile herb growth or refrained from ditching their mires are used to concerned or even sarcastic comments about the state of their forests. Now, these forest owners have been able to proudly present the natural values trading expert with large broadleaves, decayed groundwood and handsome decayed trunks still standing. They have found a partner who is interested in their forests especially and who wishes to negotiate about possible compensation for maintaining the natural values also in the future.

The forest owners appreciate the manner in which natural values trading approaches the conservation issue. The forest owners can voluntarily offer their targets for fixed-term conservation. Conservation is negotiated and the agreement drawn up with consideration to the aims of the forest owner.

In most cases it is agreed that no forestry operations are performed at the target for the agreement period, i.e. ten years. Some agreements state that the forest owner may harvest some of the growing stock provided the natural values are preserved, whereas other agreements only state that ditching will be given up. Certain agreements include an obligation to the forest owner to actively produce natural values.

The forest owners have considered retaining of ownership of their targets and the fixed term of the agreement important. The average age of the forest owners who have concluded natural values trading agreements is nearly 60 years and many are thinking about a generation change of the property. Natural values are preserved and increased in the forest and the children can then decide about its future use.

Many forest owners have expressed a desire to continue the conservation after ten years. It is important to have enough funds available for natural values trading at the time the agreements are up to be continued. The compensation for the conservation is also important for many forest owners. However, after the first decision to conserve is made, it is easier to decide about continuing it, but not many forest owners are ready to adjust the price. Sometimes no agreement is concluded as the

buyer and the seller of the natural values cannot agree about the price.

The continuation of natural values trading will be discussed in the near future. The results from South-West Finland are encouraging but further development measures are still needed. The forest owners have found it difficult to name their price for protecting a target, which has slowed down the creation of an authentic natural values market.

Natural values trading needs more flexibility both in the agreements and in the selection of the targets. It would be important to consider the appropriate length and terms of the agreement for each target and to negotiate about these issues with the forest owner respecting his/her views.

Antti Otsamo, Project Manager
Ministry of Agriculture and Forestry

METSO RESEARCH – FOREST DIVERSITY AND MONITORING PROGRAMME MOSSE



The METSO programme includes a significant research section. The largest programme of this section is the Forest Diversity and Monitoring Programme (MOSSE). The research results provide a solid basis for developing the methods for maintaining biodiversity in Finland.

The aim of the Programme is to produce new research data on the biodiversity of forests, agricultural environments and water nature as well as on the ecological, social and economic impacts of biodiversity. The programme also studies biodiversity issues of other habitats and participates visibly in the research of endangered species.

MOSSE is implemented in 2003–2006 and is continuing for its part the Finnish biodiversity research shaped by the extensive Finnish Biodiversity Research Programme (FIBRE), financed by the Academy of Finland. However, this programme has a more practical starting point and strives to find answers for actual acute questions.

The research topics cover issues relevant to the preservation and development of biodiversity, such as the basic ecology and species of endangered habitats in forests and elsewhere, conservation views of the various interest groups as well as safeguarding and development of biodiversity through planning and different restoration activities.

MOSSE is financed by the Ministry of Agriculture and Forestry, Ministry of the Environment, Ministry of Communications, Ministry of the Interior, Ministry of Foreign Affairs, Ministry of Education, Central Union of Agricultural Producers and Forest Owners MTK and the Finnish Forest Industries Federation. The projects are imple-

mented by universities, The Finnish Forest Research Institute, The Finnish Environment Institute, the Finnish Game and Fisheries Research Institute, Agrifood Research Finland, Pellervo Economic Research Institute PTT



Many forest species depend on decayed wood.

Photo: Pekka Väisänen.

and the Finnish Meteorological Institute. The Programme has 45 projects with 21 of these concentrating primarily on forests.

Results taking shape

Landowners positive towards conservation

The results have shown that the forest owners are surprisingly positive towards conservation if they are allowed to participate in the conservation process from the start. It is important to retain ownership of the protected area and to receive compensation for the protected area. If the conservation is not permanent but in some ways determined for a fixed term, this also increases positive attitudes.

Increased protection does not jeopardise felling possibilities

Studies on the impact of protection on the national felling potential have **revealed that the impacts of the search of targets through voluntary means on the felling potential are surprisingly small on the national level.** There is a clear difference comparing to the impacts of conservation based on legislation which are considerably greater. On the local level the impacts of increased protection can be more significant and may be felt e.g. in the operations of the local sawmills.

Development of regional planning methods is essential

When looking for the best possible alternatives for ensuring biodiversity it is important to consider the national and regional forest management planning data. It is possible to locate the areas with conservation value through the structural features by processing the results of the National Forest Inventory further. For example, it is possible to predict the presence of flying squirrels fairly accurately from the regional forest management planning data. Compilation of protected areas of several landowners into larger entities is easier if cooperation of the forest owners in the planning is promoted.

New forestry operations have an impact

Research has shown that the recent nature management actions based on the new forestry guidelines have a positive impact on the preservation and development of species when implemented carefully. When selected correctly, retention trees help preserve a variety of fungus and insect species, also endangered ones. More attention should be paid to developing the selection of retention trees and to training of the operators in the field.

Small protected areas, targets determined by the Forest and Nature Conservation Acts and other valuable habitats preserve the majority of species dwelling in them. There is a richer variety of insect species especially on these targets than elsewhere in forests used for economic purposes. The difference is **not as marked with** Aphyllophorales and lichens.

Restoration on correctly selected targets is effective

Prescribed burning has a very positive impact on the development of a biologically diverse stand of species. Restoration activities aimed at increasing the amount of decayed wood enrich the fauna and flora as new species requiring dead wood in their habitat set in. The effects of restoration are strongest in areas where forests in their natural state or close to it are already present.

Biodiversity changes – choices depend on values

The change in the Finnish structure of species is continuing, largely based on historical reasons. It is not possible to stop all development that leads to endangering a population. The different environmental requirements of the endangered species also pose a problem. For example, the species dwelling on decayed wood vary greatly according to the area, decayed tree species and the age and size of the trees.

It is possible to maintain a variety of species also in forests used for economic purposes by following and developing the present guidelines, but one must accept the slow pace of the changes and the species dynamics inherent to nature. A large share of the varied forest species have originally benefited from human activity shaping the forest, such as burning for cultivation.

RESTORATION OF FORESTS AND MIRES IN CONSERVATION AREAS

The Finnish forest and mire nature has changed greatly during the last century. Many forest and mire species have regressed. Restoration speeds return of these habitats closer to their natural state.

Restoration activities of the Forest Biodiversity Programme of Southern Finland (METSO) are targeted to former commercial forests and ditched mires annexed to conservation areas. Regeneration measures in forests include burning, increasing of decayed wood and small-scale clearings. Mires are restored by blocking ditches and removing trees, if necessary.

Restorative burning imitates natural forest fires that are rare in these days due to efficient fire prevention. In restorative burning the spreading of the fire is prevented by clearing a wide fire belt around the restored forest area by removing the trees.

According to research, burning is a particularly good restoration method for maintaining biodiversity, since with burning the structure of the forests is diversified quickly with a large supply of decayed wood.

Decayed wood a basic requirement for many species

When increasing the amount of decayed wood, the foresters cut and strip trees by chainsaw. As a consequence of increasing decayed wood the share of both dead standing trees and trees resting on the ground grows, since the trees are not removed from the forest. This

creates new habitats for several regressing and endangered species, such as beetles dependent on decaying wood. Dead trees are a basic requirement also for many woodpeckers and other birds nesting in holes. To these species, dead trees provide a nesting place as well as a good supply of food.

Forestry has traditionally favoured the cultivation of one tree species on a particular forest lot. Many species dependent on aspen and other broadleaves have become endangered. Small-scale clearing aims at fragmenting the monotonous structure of a forest of conifers into a more natural direction.

Mires in conservation areas are restored by blocking or damming the ditches with a caterpillar. Restoration of mires returns moisture to a dried mire, which benefits the cloudberry as well as many forest game-birds.

The aim is to restore a total of 33 000 hectares of forests and mires in conservation areas by the end of 2012. Even though the areas may seem large, the restoration measures touch only a small part of the conservation areas. The restoration aims will be further specified in connection with the evaluation of METSO in 2006.



Restorative burning is used to imitate natural forest fires.

Photo: Markku Nironen.

NATURE MANAGEMENT IN COMMERCIAL FORESTS PROMOTES BIODIVERSITY

Nature management in commercial forests means including ecological and social aims into silviculture, forest management planning and forestry operations.

Maintenance of biodiversity is usually targeted on habitats of special importance, unique structural features of the forest nature or on the habitat requirements of forest species. Nature management operations increase the amount of decayed wood important for endangered species, maintain valuable habitats for biodiversity, protect waterways and enhance landscape management as well as recreational use.

Nature management projects as means of active nature management

Nature management projects are among the important means for nature management in the National Forest Programme and the Forest Biodiversity Programme for Southern Finland (METSO). The aim of these projects is

to promote biodiversity and multiple use of commercial forests.

Nature management projects are development projects for forest nature and environment management financed by the State according to the Act on the Financing of Sustainable Forestry. Since 1997 it has been possible for the forestry centres to finance, plan and implement nature management projects in order to preserve biodiversity of the forest nature, protect the waters in commercial forests and preserve or enhance other natural values in the forests. In total, 6,2 million euro were used for nature management projects in 1997–2005. In addition, many projects have received EU financing or other funds for regional development.



Wetlands enhance water protection at Lappajärvi. Photo: Matti Seppälä.

The projects are planned and implemented together with the forest owner and the work is carried out by the forest owner's consent. The forest owners have taken the initiative especially in promoting water protection, nature management and other uses of the forest.

Nature management projects according to the Act on the Financing of Sustainable Forestry are:

- maintenance and restoration of habitats of special importance covering several estates;
- restoration of ditched forests in areas with important natural values and draining of sedimentation pools of ditched areas or prevention or restoration of the damage to waterways caused by ditching, if these operations carry wider than normal significance for management of the waterways and water nature and it is not possible to pinpoint the origin of the damage;
- realisation of landscape planning and landscape management operations;
- other regionally significant projects promoting multiple use, landscape, cultural and recreational values of the forests.

Demand for voluntary projects

Project activity in forest nature management has been established as a part of normal operations of the forestry centres during the period of the National Forest Programme. In addition to forestry professionals and forest owners, also municipalities and environment centres have participated in the projects.

Wide cooperation has for its part enhanced the effects of the management of forest nature. The operational models developed in the projects have been utilised e.g. in the METSO programme.

During 1997–2005 the forestry centres have implemented nearly 300 forest nature management projects.

Nearly half of the implemented forest nature management projects are water protection projects. The next most common types are nature management planning, e.g. maintenance of habitats of special importance, landscape restoration and restoration of ditched mires.

The aim is to plan nature management projects in co-operation in areas with other ongoing projects concerning development of nature and the environment. In this way, the nature management projects profit the forest nature and the environment as widely as possible.

Nature management projects have diverse effects

Water protection projects improve the water protection of a wide, forested draining area of 1 000–3 000 hectares on average. Water protection projects have also improved the quality of water protection and thus helped meet the stipulations of the water framework directive of the EU.

Management, charting and restoration of habitats and nature management planning promote biodiversity of commercial forests, increase natural values in the habitats or promote the living conditions of rare species. There have been projects for e.g. restoring paludific fens or other herb-rich mires, managing traditional forested habitats and supporting forest owners in preserving the natural values around brooks and rivulets.

For example rarer broadleaves have been planted in herb-rich forests, nesting sites for birds of prey in commercial forests have been preserved and the living conditions of the wild forest reindeer developed in projects targeted on particular species. The survey of habitats of special importance according to the Forest Act was a separate national project for maintaining biodiversity.

More need for management of forest nature

Maintenance and promotion of forest biodiversity based on the forest owner's own initiative may become an important task in nature management in commercial forests with the METSO programme. The forest nature management projects have established a good starting point for this activity and prepared the staff of the forestry centres for potential new tasks.

The nature management projects have created operational models in line with the METSO programme for a new kind of cooperation between the forest owners, forest organisations and local associations. The projects have also created regional networks.

A LEAKING DAM PREVENTS DAMAGE TO THE WATERWAYS CAUSED BY DITCH CLEANING

Central Finland is a region of forests and lakes. 80 % of the mires have been ditched, which is more than in any other region. Water protection was a relatively unfamiliar concept at the time of the most intensive ditchings. It is no longer possible to repair all the damage but efficient water protection measures can prevent the situation from becoming any worse.

Sediment is washed from ditched areas to the waterways below. Ditching also causes indirect sediment load. Waters from spring thaws and rains run through the ditches quickly, which increases the flow in the channels below. At times, the channel cannot hold the peak flow and the banks cave into the stream.

This is an example of what happened at the Toulajoki river at Viitasaari. The river basin houses a lot of ditched peatlands, peat production and also some agriculture. The winding main channel of the river was straightened in the 1960s. The banks of clay and fine silt have not settled and the bay below at Kolimajärvi lake keeps filling up.

Idea of a pipe dam is born

At the turn of the millennium, the time had come to clear the **blocked ditches on the mires and to thin the tree stands at Toulajoki**. Since there was no wish to further aggravate the condition of the bay, Forestry Manager **Osmo Mäkelä** of the Forestry Centre of Central Finland started to think about a larger than normal water protection project. It was decided to carry out this venture as a nature management project over several years. The aim was to prevent the harmful effects of ditch cleaning on the waterways and to repair former damage.

After the retirement of Osmo Mäkelä, the responsibility for large water protection projects was passed on to Nature Management Expert **Juha Jämsén**. The largest water protection project with regard to the amount of work is currently the Ruta-Koivulahti project at Viitasaari. The total project area covers 8 050 hectares and there are 183 landowners in the area.

"The pipe dam was a new idea in the Toulajoki river nature management project. Osmo crystallised the idea hatched in the work group about how to contain the floods into a practical structure. There are about 30 pipe dams at Toulajoki, and about another ten are constructed in the Ruta-Koivulahti project. In addition to pipe dams there will be weirs, sedimentation pools, surface drainage fields and wetlands in places where they can be constructed", says Juha Jämsén.

"A pipe dam is a dam with a little pipe at the bottom. The flow through the pipe is much less than in a free channel. In this way, the peak flow caused by the spring flood is levelled and the banks will erode less. However, the pipe dam may not be so tight that the water is retained above the dam for too long, at least during the period of summer floods. If this happens, it will slow down the growth of the forests, which the spring floods do not disturb".

Cooperation between the landowners is smooth

The operations of nature management projects are carried out with financing through the Act on the Financing of Sustainable Forestry, which means that they shall be targeted to private forests. On the other hand, water protection is considered for the entire drainage area in nature management projects, not only for the problematic spots. In **nearly every case, the drainage area also contains state-owned forests or, as is the case especially in Central Finland, forests owned by forest companies**. Cooperation between the landowners has run smoothly.

"Metsähallitus and the forest companies have been very actively involved in the project. For example at Toulajoki a surface drainage field was realised where the water is forced through a pipe dam into a peatland pine forest and on to the river. The forest lot where the drainage field is constructed is owned by UPM, but the waters flowing onto it originate from private forests", Juha Jämsén continues.

Scientific research of hole dams

The pipe dam, hole dam, osmomäkelä dam – there are many names for this concept - has started to gain a wider interest. The Forestry Centre of Central Finland is participating in a project led by the University of Oulu that studies the effects of pipe dams over the next few years. Even new dams are constructed for this research in order to study their effects on the washing of sediment. Another aim is to model how much more slowly the water is drained from the forest.

"The oldest pipe dams have been in the forest four or five years and new things have been learned about their construction. We will get more carefully analysed data from the project led by the university. The intention is to compile more detailed guidelines about how pipe dams can be used as a part of the water protection in standard ditching projects", Juha Jämsen continues.

More project proposals coming in than can be realised

Pipe dams and other new methods have so far been developed in nature management projects, which means that the landowners have not been charged for the costs. The ultimate aim is to incorporate the best and most cost-efficient methods into the work and cost of normal ditch cleaning projects.

The Ruta-Koivulahti project has taught that an area of 8 000 hectares is too large. Even if the area is considered for operations as a larger entity, the execution of the work should be divided into several projects.

More proposals for new water protection projects are made than it is possible to realise on the financing and personnel for nature management projects. The grounds for classification of the projects before the cumbersome planning stage for field work have been considered at the Forestry Centre of Central Finland.

"The most important issue is the realised damage and the fact that this damage is caused by forestry, not by

e.g. agriculture. Another aim is to cooperate with the Environment Centre and other operators", concludes Juha Jämsén.



A small pipe dam of 96 millimetres has retained the water effectively above the dam. The net at the top end of the pipe prevents blockage by debris. This pipe is already a little too small, since water runs over the dam. A more suitable size would have been around 150 millimetres. The dam should also be raised. Photo: Ari Nikkola.

Olli Kursula, Game Management Adviser
Game Management District of Central Finland

CAPERCAILLIE PARLIAMENT – COOPERATION FOR THE REGIONAL BIRD

The Capercaillie Parliament is a group convened by the Game Management District of Central Finland for improving the living conditions of the capercaillie through long-term cooperation and gathering and dissemination of information.

Nearly all the major companies, authorities and associations operating with forest nature in Central Finland belong to the Capercaillie Parliament that was established in 2000. The main sponsors are Metso Oyj, the Finnish Forest Foundation, Ministry of Agriculture and Forestry and Metsämiesten Säätiö Foundation.

Charting of mating places was the first operation

The mating places of the capercaillie in the area of the Game Management District of Central Finland were charted in the 1970s. The felling methods for the mat-

ing places were studied in Central Finland in the 1980s in a project of the Hunters' Central Organisation. A management guide for the mating places of the capercaillie was drafted as a result of the project.

The Capercaillie Parliament charted the mating places of the capercaillie in the area of the Game Management District of Central Finland in 2001–2003. Several new mating places in young forests were discovered and interesting observations about moving of the mating places made in the charting. 31 per cent of the forests at the mating places were younger than 50 years.



The capercaillie seems to have adapted surprisingly well to young forests. More and more of the mating places are also in young forests. The photo shows a mating centre in a 25 year old pine wood surrounded by 40 year old and older forest.

Photo: Pentti Valkeajärvi.

Important role of research

The fresh data on the mating places will be used in further projects of the Capercaillie Parliament in which the birth mechanisms of new mating places, adaptation of the capercaillie to young forests and frequency and transfer of the mating places are studied. The aim is to be able to issue guidelines on the management of forests with capercaillie based on the new research data. These guidelines are needed shortly since the massive operation for first thinnings has now started.

The video "Future for the Capercaillie" was produced in 2003. The video presents the central issues concerning the management of regressive capercaillie populations and gives advice on operational models favouring the capercaillie to forestry professionals, forest owners as well as hunters.

The Capercaillie Parliament published a guide on nest protection in 2002. 25-60 per cent of the nests of forest game birds are destroyed before hatching. Most of this destruction is caused by small predators common in the area, such as foxes, raccoon dogs, pine martens or badgers. Most of the discovered nests can be spared by protecting them. These nests are also preserved during soil preparation for forest regeneration.

Capercaillies do not dwell only in old forests

The capercaillie populations have regressed in Central Finland by 60-70 per cent in the last 40 years. The reason behind this is commonly considered to be the structural change in the forests, mainly the reduction of old forests, fragmentation of the forests and growth in the populations of small predators. Nevertheless, the capercaillie is still rather common with average densities of 2-3 birds per square kilometre. The problems related to the capercaillie cannot be solved by setting up conservation areas but need to be addressed through normal management of commercial fo-

rests. It is still believed that capercaillies live only in old forests and that any kind of felling is disastrous to the populations. The fact is, however, that the capercaillie benefits from well-timed first thinnings and can also feel at home in young forests. Excessively dense forests do not leave room for the capercaillie, however. A young forest that has been appropriately thinned provides at best a good living for the capercaillie for decades, sometimes even a mating place.

Further research is needed to establish how young forests should be treated in order for the capercaillie to feel at home in them as early as possible. It is also important to disseminate correct information.

Future for the capercaillie lies in young forests

The delays in silvicultural operations, tending of young stands and thinnings are a significant problem in forestry. They are also a problem for the capercaillie. It is possible to produce roundwood timber and improve the living conditions of the capercaillie at the same time on the same forest lot.

We already know a great deal about the requirements of the capercaillie for its place of living. As our knowledge of favourable treatment of young forests with regard to the capercaillie grows it will be fully possible to rapidly increase the capercaillie population.

Forest game bird populations are prone to strong cyclical fluctuations. The long-term decline in the trend is a concern even though some signs indicate that the bottom has already been passed.

Extensive long-term cooperation is needed to ensure a better future for the capercaillie population. The work of the Capercaillie Parliament has only just started. For more information, see the home pages of the Capercaillie Parliament at www.metsoparlamentti.fi.

Matti Hirvonen, Manager of Outdoor Activities
Tuomo Jantunen, Director of Activities
Suomen Latu ry

EVERY MAN'S RIGHTS ENSURED THROUGH COOPERATION

The aim of the National Forest Programme is to promote all kinds of material and spiritual well-being produced by the forest. Recreational use of nature and application of every man's rights especially are discussed and negotiated at the Outdoor Forum.

The Outdoor Forum is a cooperation network established in 2004 to promote outdoor activities. The present forum consists of 17 civic organisations in whose activities outdoor pursuits occupy a central position, including the most relevant ministries, administrations and institutions that represent the authorities in outdoor recreation. Suomen Latu acts as the forum coordinator.

The need to establish a wide cooperation network to promote outdoor activities had been voiced by various civic organisations and authorities for decades. This need has been enhanced by the dispersed public administration with regard to outdoor recreation. The cooperation results in the other Nordic countries encouraged for their part to set up a corresponding network system adapted to the Finnish conditions.

Definition of outdoor activities

According to the Outdoor Forum, outdoor activities

- are mainly activities performed by muscle power – including
- sailing and boating;
- happen outdoors – in natural environments or constructions linked to it (e.g. pedestrian or cycle paths);
- rely wholly or partly on every man's rights;
- mainly take place because of pleasure, recreation or the health effects of physical exercise;
- are not in violation of the principles of sustainable development.



The Finnish nature offers many possibilities for hiking and tripping. Photo: Antero Aaltonen.

The aims and tasks of the Outdoor Forum

The aim of the Outdoor Forum is:

- to maintain and develop the conditions for outdoor pursuits;
- to preserve every man's rights at least in their present extent
- to provide joint representation for the interested parties in outdoor activities towards the Council of State, the authorities and other organisations;
- to strengthen the position of outdoor activities in various fields of society;
- to promote outdoor pursuits according to the principles of sustainable development.

The principal tasks of the Outdoor Forum are:

- Safeguarding of every man's rights
 - proclamations and statements
 - education and communication to ensure responsible behaviour outdoors
 - organisation of the Every Man's Rights Day
- Interest protection in matters regarding outdoor activities
 - financing of outdoor pursuits
 - regional planning and planning of land use
 - legislation reforms (such as the new Outdoor Activities Act)
 - recreational use of nature conservation areas
 - establishment and use of outdoor and recreational areas
- Monitoring and coordination of international cooperation
 - especially cooperation with other Nordic central organisations for outdoor activities

Common operational models and procedures

During its first year of operation in 2005, the Outdoor Forum emphasised the securing of every man's rights and duties and development of the conditions for outdoor pursuits. Relevant new information was received on every man's rights through wide-based cooperation,

experts and training sessions. This made it possible to work on achieving a common view and organising uniform training and information in the member organisations of the forum.

The problems and "borderline" cases regarding every man's rights were solved on the joint forum which, in turn, reduced the unnecessary controversy between e.g. the landowners and citizens engaging in outdoor pursuits, often fuelled by the media. It was stated that the best way to ensure the basis for recreational use of nature also in the future in conditions of increasing competition between the various forms of land use is common operation models and procedures. Drafting of a "Guidebook for Professionals" to be used in organisations, by the authorities and in nature travel has been started in cooperation between the Outdoor Forum and the Ministry of the Environment. This guidebook will combine all useful information on every man's rights from common practices to decisions of the various court instances. The expertise of the Outdoor Forum will also be used in the preparation of the reforms of the Outdoor Activities Act and the Nature Conservation Act.

Consideration of the needs of outdoor pursuits and recreational use of nature have become increasingly topical lately, especially regarding the areas in the Natura 2000 network. The member organisations of the Outdoor Forum have been active by drafting joint proclamations and requests for statements to the relevant authorities.

Odense Declaration

As a part of the Nordic cooperation of the Outdoor Forum a joint declaration was drafted and approved in August 2005 on behalf of outdoor activities:

Park administrators, outdoor organisations and researchers in the Nordic countries held a conference in Odense from 24 to 28 August 2005. The focus was on the urban green resources. For visual pleasure, for recreation and as a result of planning, the urban green areas are some of the assets which add to the

Member organisations of the Outdoor Forum in 2005 :

- Konditionsfrämjandet rf
- Finnish Nature League
- Central Union of Agricultural Producers and Forest Owners MTK
- Metsähallitus
- The Finnish Forest Research Institute
- Hunters' Central Organisation
- Ministry of Education
- The Finnish Reservists' Sport Association
- Ministry of Social Affairs and Health
- Association of Finnish Local and Regional Authorities
- Suomen Latu ry
- Finnish Sports Federation
- Finnish Association for Nature Conservation
- The Guides and Scouts of Finland
- The Equestrian Federation of Finland
- The Finnish Rowing Federation
- The Finnish Orienteering Federation
- Finnish Federation for Recreational Fishing
- The Finnish Boating Association
- The Finnish Association for Environmental Education
- Finnish Environment Institute
- Työväen Retkeilyliitto ry
- Ministry of the Environment

enjoyment of everyday life. With the Odense Declaration the organisers and the participants at the conference wish to send a joint message to the politicians in the Nordic countries.

Planning:

- Municipal planning should strive to improve the quality of urban green areas and provide an
- adequate supply of these.
- Local outdoor and nature organisations should be actively involved in the work of developing
- urban green public areas.
- Research should focus on how strategic green management can be better integrated in municipal planning to the benefit of holistic urban planning.

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Communication – health

- Schools should be encouraged and supported to create opportunities for outdoor teaching.
- Institutions for both children and the elderly should be involved in the urban green areas,
- including a focus on outdoor life and nature activities in their everyday lives, which also includes activities in the immediate vicinity of the city, urban woodlands and larger nature areas.
- Research should continue to document and expand knowledge about the importance of using

urban green areas to benefit the physical and mental health of the population.

Accessibility:

- Recreational areas inside and outside the city should be easily accessible and open for many different activities and target groups. No one should live more than a five minutes' walk from a green area.
- Local outdoor and nature organisations should be actively involved in ensuring that green areas near residential areas are inviting for movement, games, exercise and outdoor activities and also have a rich and varied natural life. Research should focus on how the numerous administrative and physical barriers in the city can be removed to create coherence and easily accessible green areas.

Finance:

- It should be a public social responsibility to ensure the availability of resources for the development and improvement of existing green areas and areas for relaxation in cities.
- We are always willing to participate in a dialogue with decision-makers concerning visions, objectives and resources for such development.

Leena Hytönen

GROWING NATURE TRAVEL

Nature travel is the fastest growing tourism branch in the world. Nature is the most important tourist attraction in Finland. As a labour-intensive branch, the importance of tourism in the regional economy is already considerable in some areas.

About one quarter of the tourism in Finland is nature tourism. Skiing, Nordic walking, canoeing, hiking or tripping, bird watching, cross-country cycling, snow boarding, fishing and even experiencing the silence attract both Finnish and foreign tourists in growing numbers. Tourism and recreational use of nature are combined in nature travel.

In 2003 the Council of State adopted a Decision in Principle on an Action Programme for Developing Recreational Use of Nature and Nature Travel (VILMAT). It has been estimated in the programme that the number of jobs in the business may be doubled through development actions and reach 64 000 jobs by 2010.

The development actions are targeted on clarifying the responsibility and matching the objectives of persons working in recreational use of nature and travel based on it, on development of the conditions for working in

nature and preservation of the attraction factors, product-packaging of nature travel services and development of the cooperation as well as on general improvement of demand orientation, knowledge and know-how in nature travel.

In addition to the business operators, the central executors of the VILMAT programme include ministries, municipalities, the Association of Finnish Local and Regional Authorities, regional councils, Metsähallitus, Suomen Latu ry and the Finnish Tourist Board.

Most of the 30 actions of this versatile action programme coordinated by the Ministry of the Environment are targeted on forest either directly or indirectly. "Forests are the biggest Finnish gymnasium" reminds VILMAT Programme Coordinator, Senior Adviser **Pekka Tuunanen** of the Ministry of the Environment.

LUONTOON.FI – STARTING POINT FOR YOUR NATURE EXPERIENCE

Luontoon.fi is a webservice operated by Nature Services of Metsähallitus that offers a versatile presentation of Finnish hiking, tripping and nature travel targets. It is possible to search for a suitable target by the desired duration of the trip, recreational opportunities, or the surrounding nature. The service is rapidly gaining in popularity.

The webservice Luontoon.fi was built based on the need to increase the awareness of hiking and nature travel targets with free services on State-owned land. Construction of the Luontoon.fi webservice was also among the actions in the Decision in Principle on an Action Programme for Developing Recreational Use of Nature and Nature Travel (VILMAT), adopted by the Council of State in 2003.

A decision was taken at Nature Services at Metsähallitus to make the Luontoon.fi webservice into a comprehensive and up-to-date channel for finding the hiking and nature travel targets maintained by Nature Services. The aim was to create a customer-oriented service and to promote nature travel cost-efficiently.

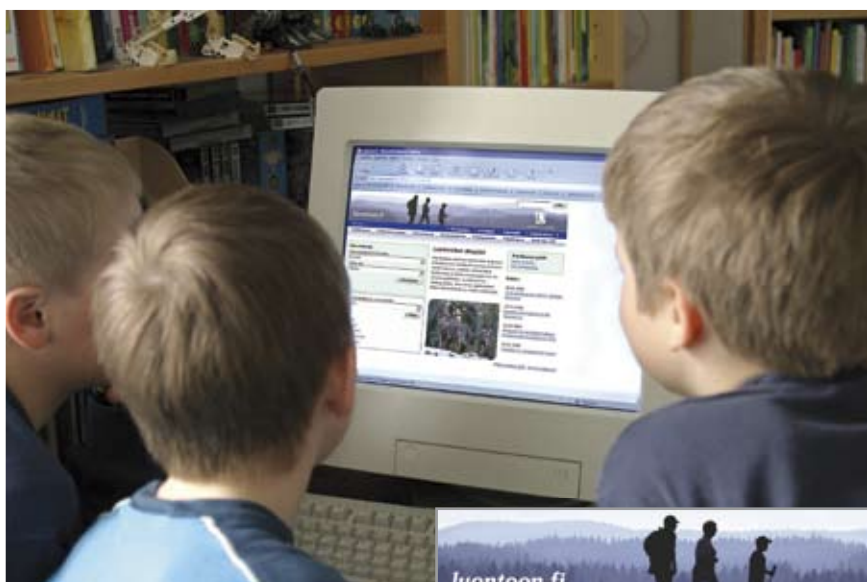
The core of the Luontoon.fi webservice consists of targets on State-owned land but the possibility of other social operators, such as municipalities and recreational area associations, to join the service later was considered in its design. The general aims of the webservice were to increase awareness of recreational opportunities related

to nature and freely offered by society, to encourage the users to go into nature and to increase nature and environment awareness and general well-being.

The Luontoon.fi webservice was implemented as a project in 2002–2004. The work was financed from the basic funding for Nature Services of Metsähallitus from the Ministry of the Environment and the Ministry of Agriculture and Forestry. Other than the technical realisation, the project was executed in-house at Metsähallitus. Nearly 100 experts participated in the project contributing in total about 10 person years over the two years. Luontoon.fi was opened in March, 2004.

Consideration for target groups in the design

The Luontoon.fi webservice is targeted to users interested in the Finnish nature, hiking and nature travel. The target groups include both Finnish and foreign hikers and travellers, including experienced internet users and hikers as well as beginners.



Luontoon.fi provides hiking tips for users of all age groups.
Photo: Jari Kostet.

Visitor surveys and customer feedback of Metsähallitus, results of the national inventory of recreational use of nature (LVVI) and the customer value creation process were utilised in the **design of the webservice**. Easy use was verified by conducting usability evaluation and testing on the webservice and by focusing on the search operations.

Easy usability of the service and effortless location of a hiking target suited to the user's personal needs encourage also those nature goers and internet users with little experience to familiarise themselves with what is on offer. A suitable hiking target **may be searched** e.g. based on the map or a key word. It is also possible to define certain desired characteristics for one's trip, such as duration, recreational possibilities and surrounding nature and then search for a target based on these.

Versatile webservice in four languages

The Finnish and Swedish versions of Luontoon.fi (Utina-turen.fi) have mainly the same content. At the time of publication, about 80 hiking targets, dozens of nature centres and other customer service points as well as diverse recreational opportunities were introduced in the webservice. In addition, current news and events as well as links to other public webservices that might interest the traveller have been included from the start of the service.

The presentations of the hiking targets include a description of the services at the target and in the nature travel companies operating around it, provided the companies have signed a cooperation agreement according to the principles of sustainable nature travel with Metsähallitus. In this way, the needs of the customer are served and nature travel business is promoted. It is not possible to buy advertising space in the Luontoon.fi webservice.

Since its publication the webservice has been supplemented e.g. by several new presentations of customer service points and by nearly 50 hiking targets, some of which represent the cultural heritage of our forests.

In 2005, Retkeilyn ABC (Hiking and Tripping ABC) was published in cooperation with Suomen Latu and the Guides and Scouts of Finland. The ABC is a sturdy basic package on planning the trip and selecting gear, on the necessary hiking or tripping skills and safety and on environmentally friendly tripping. The service was expanded by a section serving teaching purposes at the end of 2005.

Other important extensions include the versions in Sami and English, published in 2005. The pages in Sami (Lundui.fi) have been prepared of the hiking targets of North Lapland in North Sami, including pages in Skolt Sami or Inari Sami, according to the "linguistic" location of the target. Some pages can even be searched in Sami or browsed for environmentally friendly tripping. The English section (Outdoors.fi) is directed to foreigners and presents the most famous and best-served hiking targets. In addition, the section Outdoors.fi contains a general presentation of hiking and tripping in Finland.

The webservice is maintained by the regional offices of Metsähallitus Nature Services.

Already more than one million visits annually

The webservice Luontoon.fi has gained popularity rapidly. The service was visited by half a million users during its first year of operations and by nearly one million users the following year. Based on the first quarter of 2006 the number of visitors is still rising.

In addition to the number of visitors, their satisfaction with the service is also monitored. The customers have the possibility to give feedback to the Luontoon.fi service on a feedback template, which has resulted in frequent enquiries and comments. The Luontoon.fi service has been developed a great deal based on the feedback, for example the information has been made more accurate and the contents extended.

The technology utilised for webservices is developing rapidly and the amount of information on the internet is increasing. Correspondingly, the expectations of the customers regarding webservices are also growing.

The aim of Nature Services of Metsähallitus is to present all nature travel targets with services on State-owned land in the Luontoon.fi webservice. In addition, the possibility to include some of the most important recreational targets managed by other public operators such as municipalities or recreation area associations into the service is studied. Other development areas in the webservice are inclusion of up-to-date information, electronic trading and map services.

LANDSCAPE PRUNING PROMOTES TRAFFIC SAFETY

Roadside bushes reduce traffic safety considerably. The roadsides are also windows into the Finnish nature. The same means can be used for landscape management and improvement of traffic safety.

A strip of untended land is often left between the road and the forest. A strip of "no man's land" is formed at the roadside if the border markings for the road area are missing from the terrain.

Public opinion about the management of Finnish forests is regrettably often formed when sitting behind the steering wheel of a car. Especially to foreigners, roadside forests may be the only contact to the Finnish nature and countryside.

Pruning of roadside bushes opens the immediate landscape and may help reduce accidents caused by elk or deer. It is easier for the motorist to spot the elks on a cleared roadside. The elks themselves are also more careful when left without cover. Something should be done in order to tend the roadsides and secure their maintenance.

Traffic safety and landscapes

Route 8 that stretches from Turku to Vaasa via Pori has long had problems with traffic safety. Growing traffic and dense elk and deer populations have made this road the most dangerous one in the Turku Road District.

From the point of view of the road authority, road safety takes priority but also the road landscape and its immediate surroundings are parts of the road concept. The Forestry Centre of South-West Finland has drafted landscape management plans for the roadside forests on many sections of the road.

Elk and deer accidents and landscape management brought together the Forestry Centre of South-West Finland and the Turku Road District to prepare a development project. The operative idea was to prune the roadsides in order to improve both traffic safety and the roadside landscape. After a preliminary study the project was launched after securing EU financing in summer 2003.

The project was implemented on Route 8 between Turku and Merikarvia, on a stretch of 230 kilometres during 2003–2005. The most important and visible me-

asures were clearings of the roadside visibility areas on a total of 380 hectares. Young roadside stands were thinned on 188 hectares and other thinnings improving the landscape were carried out on 71 hectares. Also 3 000 cubic metres of energy wood were harvested from the roadside targets.

448 estate calls were made to the agricultural and forest estates in the project area. On these calls, personal advice was given e.g. on silviculture and forestry operations, environmental protection and management of cultural landscapes. In order to ensure continuity, forest management plans were drafted for the most central forest estates. 152 forest management plans were prepared for a total area of 1 260 hectares. The participating forest owners could realise their silvicultural and forestry operations at a cheaper rate than normally.

Wide cooperation project

The project was led by the Forestry Centre of South-West Finland and it had exceptionally many cooperation partners: ProAgria Finska Hushållningssällskapet – the Finnish Society of Economics, ProAgria Satakunta Rural Centre/Rural Women's Advisory Organisation, Southwest Finland Employment and Economic Development Centre, Turku Road District of the Finnish Road Administration, Metsäliitto Cooperative, forest management associations and game management districts of the region and several municipalities from Satakunta and South-West Finland.

The Forestry Centre was responsible for administration of the entire project. In addition, the Forestry Centre took care of advising the forest owners, of silviculture and forestry operation agreements in the forest areas, of forest management planning and of partial realisation of the clearing operations.

Management of the cultural landscapes was handled by the organisations in ProAgria. Their work included village landscape plans that were drafted for two villages and more detailed yard and environment plans for 28 different targets. The ProAgria organisations have also drafted the road landscape plan for the Turku – Merikarvia stretch. This plan also functions as an advi-



Lake Pirttijärvi in Pori was hidden from the road earlier. The lake can now be seen as a result of a voluntary work project by the College of Forestry in Pori.

Photo: Sanna Seppälä.

sory guide and has an edition of 400 copies. In addition, the organisations have participated in organising the training and voluntary work sessions for the project.

Forest management associations performed roadside clearings and tending of seedling stands in forested areas. The task of Metsäliitto Cooperative was to implement mechanical harvesting of energy wood on the roadsides.

The direct employment effect of the project was about 20 person years. Several voluntary work sessions were organised on the roadsides involving e.g. hunters who participated actively. The amount of voluntary work rose to about 3 000 hours in total.

The principal financers for the project were the EU, Southwest Finland Employment and Economic Development Centre and Turku Road District. Other public financing was obtained from municipalities and parishes in the project area and from the Forestry Centre of South-West Finland. 10 % of the project funding came from private sources consisting of participation fees from the landowners, the share of Metsäliitto Cooperative and from the work and other benefit acquired through voluntary participation.

Communication and information about the project were emphasised and this succeeded better than expected. Especially the kick-off session and the voluntary work campaign gave a lot of positive publicity to the project. This publicity was a great help when negotiating about roadside prunings on private lands. The landowners were informed of the project in various sessions open for the general public, such as village hall sessions and information sessions by the Forest Management Association, the Game Management District and in other public functions for the forest owners. In addition, more than 1 000 personal letters were dispatched to the landowners.

Accidents caused by elk started to decline on this road-stretch from 2003, mainly because of the decline in the elk population but also in part because of the project.

Continuity of the activities

The worst thickets have now been cleared or pruned and in future years we may enjoy the tended roadsides and the resulting safety benefits. However, roadside bushes are a recurring problem. The pruning should be done every 3–5 years. In the future, extensive clearing and pruning will not be possible on similar project financing, which means that continuation of the activities will rely heavily on voluntary work.

The project has striven to bring life to the old Finnish tradition of voluntary work and to open various cooperation forms between rural decision-makers. The interest of the roadside landowners in tending the roadside areas has been awakened through realisation of silvicultural and forestry operations, training and personal advice.

Forest management planning, village landscape planning and advisory road landscape planning covering the entire roadstretch have been utilised to encourage also municipalities, companies and village communities to manage their road landscapes.

The experience from using equipment for harvesting of energy wood in landscape management has been positive. The future of roadside management is fully mechanised. The demand for energy wood is increasing and government support policy could be directed towards increasing landscape management operations. Roadsides and other land areas suffering from lack of management need public attention.

LOOKING FOR FUTURE POSSIBILITIES FOR THE FOREST SECTOR

The Future Forum on Forests studies the long-term trends affecting the forest sector in order to support the decision-making of today.

The future cannot be predicted; it can only be shaped, it is said. Even though this may be the case, mapping of the future has gained ground rapidly in this millennium in Finland. Already it has proven to be a useful way of outlining future development trends in order to react timely in the decision-making to the issues shaping them.

The Future Forum on Forests tries to map the development trends affecting the forest sector for a time span of 10–20 years. Mapping the future means a systematic and participatory process whereby long-term development trends affecting the forest sector are reviewed for supporting the decision-making of today.

The Future Forum on Forests project is implemented by the University of Joensuu and financed by the Ministry of Agriculture and Forestry. The project is carried out in two phases.

In the first phase of the Future Forum (April 1, 2003–March 31, 2005) the mapping centred on the work of five future work groups. Development in the forest industry, forest technology, silviculture and forestry, environment and social sustainability were evaluated by about 70 experts in total. The results of the work groups have been published in separate research reports. A summary of the work group results and other studies of

the Future Forum have been compiled in the book *Menestyvä metsäala ja tulevaisuuden haasteet* (Successful Forest Sector and Future Challenges).

In the second phase of the Future Forum (April 1, 2005–March 31, 2008) the emphasis is on forecasting future possibilities for the forest sector. The future studies and forecasting networks evaluate the business possibilities for example through analysis of new uses for forests and wood and analysis of the globalisation trends. The business possibilities are mapped in cooperation between the forest sector and experts from other sectors.

Support for decision-making

The aim of the Future Forum on Forests is to support the strategic planning for forest policy and for organisations in the forest sector. The Future Forum has participated in various strategy processes and planning of policy programmes as an independent expert.

Information about the future has also been utilised in the decision-making of various organisations concerning their future activities. The Future Forum has participated in different strategic and planning meetings where information about the future has been one factor affecting the decision-making.

Future strategy for the forest sector has two central aims

Based on the results of the Future Forum on Forests a strategy with two central aims is needed for the development of forest-based businesses in the future.

The first aim of this strategy emphasises continuous development of the processes in the traditional forest sector to become more efficient and to gradually raise the processing degree of the production. Improvement of cost-efficiency throughout the production chain and continuous development of the existing production practices and business operations are key points in this strategy.



The main results of the first phase of the Future Forum on Forests are compiled into one report.

A future strategy with two central objectives is needed for the forest sector:

Development of the operation of the traditional forest sector, for example:

- Lowering of production costs.
- Effectivation of administration, research and training.
- Ensuring the availability of timber.
- Ensuring the availability of labour for forestry and harvesting and transportation of timber and energy wood.
- Maintaining social acceptability.

Renewal of the forest sector, for example:

- Combining of information technology, chemistry, biotechnology and material technology in the forest industry.
- Joint production of heat, electricity, fuels and forest industry.
- New forms of forest use in nature conservation, carbon binding, travel and by-products of wood

In forestry, the strategy aiming at development of the traditional forest sector means continuous monitoring of the production costs in order to maintain the profitability of forestry at its present level. Other future challenges in forestry include ensuring the availability of timber and labour in forestry and maintaining social acceptability. This may weaken if the forests and forestry do not provide sufficient well-being to the ordinary Finns and to the growing number of new forest owners.

The second aim of the strategy emphasises renewal of the forest sector. New forms of wood use and development of forest-based services may open significant new business opportunities alongside the traditional forest sector. Combining of information technology, chemistry, biotechnology and material technology to the know-how of the forest industry can lead to profitable restructuring of the forest industry. For example, the production of heat, electricity, and in the long-term, biofuels for traffic, may open up significant new fields of business for the forest industry.

In forestry, the strategy aiming at renewal of the forest sector means more versatile use of wood and forests in the future. The diversifying uses of forests and wood emphasise the need to diversify the management of forests. Some forest owners may wish to manage and use their forests as efficiently as possible by applying short cycles, whereas other forest owners may prefer more natural forestry with longer cycles or continuous growth cover. It is also possible for the growing of forests to diversify so that lighter measures for managing the forest are applied in areas important for habitation or travel than in areas that are central for timber production.

Lessons learned from the mapping

The central features in all work concerning the future are expertise, systematic working methods and orientation into the future as well as decision-making based

on the analyses of the future. Based on the experience of the Future Forum on Forests, it is also beneficial if the mapping of the future is independent and it incorporates poly-scientific information. Only in this way will it be possible to target the mapping on new possibilities instead of defending the achieved aims. The future strategy with two aims described in the above emphasises the need to consciously direct the decision-making of the operators of the forest sector not only into development of the traditional forest sector but also into actively renewing it.

Other characteristics of successful mapping include effects of the work and its orientation towards the interest groups. For example, it is important to the forest sector that the businesses whose future is concerned in the mapping are involved in carrying out the actual mapping process.

It is also useful in the mapping if the work contains a good dose of genuine innovation. The operation model for the mapping must be able to adapt to the needs attached to it. Continuous development of the operation model for the mapping is a challenge but it also prevents the work from stagnating into a standard activity.

Reports by the Future Forum on Forests:

- Niskanen, A. (edit.). 2005. Menestyvä metsäala ja tulevaisuuden haasteet.
- Kellomäki, S. & Laukkanen, S. 2005. Ekologinen kestävyys, ympäristömuutos ja metsätalous.
- Kolström, T. & Harstela, P. (edit). 2005. Puuntuotannon ja korjuun tulevaisuus.
- Koivula, E. & Saastamoinen, O. (edit.) 2005. Näkökulmia luontomatkailuun ja sen tulevaisuuteen.
- Kärkkäinen, M. 2005. Maailman metsäteollisuus.
- Saastamoinen, O., Donner-Amnell, J. & Rantala, T. (edit.). 2006. Näkökulmia metsäalan sosiaaliseen kestävyteen ja sen tulevaisuuteen.

THE FOREST LEARNING PATH – A MODEL FOR COOPERATION IN SCHOOLS

The results of the 1998 Forest Quiz were revealing: Some of the Finnish youngsters could not tell spruces and pines apart. Concerns about the alienation of urban Finns from the forest were confirmed. The learning path was established to point the way to the forest.

The Finnish Forest Association and the Board of Education started the challenging work to define what kind of information the Finns should receive while in school in order to retain forest and wood **know-how in our civic skills**. In 2000 these aims were published in the book *Metsän oppimispolku – malli metsä- ja puuopetukseen* (Forest Learning Path – a Model for Forest and Wood Teaching).

Very concrete aims were defined for the forest and wood teaching on various levels: preschool education, primary school, secondary school and high school. The areas of know-how include forest nature, conservation of forest nature, forest culture, recreational use, forestry and processing and use of wood. Thus, the basis of the forest teaching lies on ecological, social, cultural and economic sustainability.

Networks as operational model

There are several operators in the forests viewing it from one or more angles of know-how of the learning path. This is an asset that was decided to be utilised in order to reach the aims of the Forest Learning Path. The Finnish Forest Association summoned a **National Steering Group**, with invited representatives from the education sector and representatives from sectors outside the schools.

Each forestry centre has appointed a coordinator for regional school cooperation. In areas where cooperation networks already existed, these have been supplemented. The project "Forest Possibilities" of the 4H Council supports the work of the forestry centres by extending the activity even to the operator networks on the municipal level, i.e. forest teams.

The networks will convene and draft plans for the future at the latest in the course of 2006 in all forestry centre regions, since the new forest certification requires a programme for increasing the forest know-how of the young in the region of every forestry centre.

The aim of the networks is to improve communication and to target resources. The tasks of each organisation regarding schools and day care centres as well as joint-

ly implemented activities will be defined through group-work.

The regional groups involve e.g. nature organisations, machine operators, forest management associations, hunters, forest industry companies, forestry schools, units of the Finnish Forest Research Institute, Metsähallitus, 4H districts and associations. The groups are evolving and new operators may join them.

Monitoring of the realisation of the regional programmes related to forest certification provides more accurate estimates of the number of **children and young** that are annually reached. The current estimate is about 50 000, including the national Forest Quiz.

Networks to support forest teaching in day care centres and schools

Basic and preschool education rely on the national teaching plans and on the teaching plans for municipal-



Vantaa schoolchildren planting forest on the forest week for schoolchildren. Photo: *Erkki Oksanen*.

ities and schools drafted based on these. The aims and activities of the Forest Learning Path Support the teaching plans. The Board of Education finished the reform of the fundamentals for national teaching plans for all grades in 2005. At this time, the aims of the Forest Learning Path were also updated to correspond to the fundamentals of the present teaching plans. The National Steering Group played a role in retaining versatile forest teaching in the fundamentals of the teaching plans. The Steering Group also offered expert assistance in revising the study books. The most important task in the future will be to ensure that the teachers receive expert support if needed in the realisation of the forest teaching.

The best way to learn about the forest is to go into it, so forest days and weeks are organised for the pupils, teaching sessions held in the near woods and the local forest industry studied. The aim is to provide as many pupils as possible with the opportunity to visit the forest. The activities are free for the schools and provided within the possibilities of each operator.

Oppimispolku.fi takes to the forest

The webportal Oppimispolku.fi was constructed to help spread information. The service is designed for teachers and other operators linked to the schools. The portal provides a kind of library for collecting teaching material, exercises and homework compiled by various operators for supporting forest teaching. It is possible to retrieve ready-made material from the service as well as request material and background information. The portal serves both the producers and users of the material.

The portal provides information about events suited for teaching purposes and on courses directed to teachers as well as contact information of the operators cooperating with schools. Cooperation is also established with the universities that train teachers. Annual forest courses are organised for teachers as supplementary education. Forest cooperation should be emphasised more in the basic training and supplementary education of teachers.

Monitoring of knowledge and attitudes

The Forest Quiz for secondary school pupils has been staged since 1982 for measuring the forest know-how in secondary schools. About 70% of the age group participate in the Quiz.

Development of the attitudes and knowledge has been monitored since 2001 every two to three years by the forest barometre conducted among children and the young. The role of parents as disseminators of forest information is declining whereas the role of the school is increasing. This puts more emphasis on the teachers' forest know-how. Forestry professionals can support

National Steering Group of the Learning Path:

- Association of Biology and Geography Teachers BMOL
- Association of Kindergarten Teachers LTOL
- Association of Class Teachers
- Central Union of Agricultural Producers and Forest Owners MTK
- Forestry centres
- Metsähallitus
- Finnish Forest Research Institute
- Hunters' Central Organisation
- Forestry Development Centre TAPIO
- Finnish Forest Industries Federation
- National Board of Education
- Puumiesten liitto (Wood Experts' Association)
- 4H Council
- Suomen Latu ry
- Finnish Forest Association
- Round Table of Environmental Education (representative from Nature League)

the teachers in this work. It would be especially important to ensure that future teachers receive sufficient information about forests already during their training.

Resourcing for the activities

The participating organisations provide labour and financial support. Some of the operators raise the money through projects financed e.g. by the Employment and Economic Development Centres and the Leader and Pomo operating groups. The Finnish Forest Foundation and Metsämiesten Säätiö Foundation both support the cooperation with schools. The Ministry of Agriculture and Forestry also supports the work for ensuring forest know-how among children and the young.

Increasing the forest know-how of children and the young is a long-term project

Every year a new age group of about 60 000 children enters the Forest Learning Path. The following should be ensured in order to retain forest and wood know-how as a part of the civic skills of the Finns:

- the teaching plans include objectives and sufficient content for forest and wood teaching;
- the study books contain accurate information;
- the teachers possess sufficient and up-to-date knowledge and skills;
- the forest operators make an effort to improve the forest know-how of children and the young;
- the networks are utilised and a systematic method is created through cooperation for reaching the children in the areas near each operator once before moving to secondary school and once before the youngsters leave basic education.

NATURE DATA SYSTEM BENEFITS FORESTRY AND ENSURES BIODIVERSITY

The pioneering work in Pirkanmaa has resulted in compiling the nature data previously scattered on paper maps or in publications into a nature data system based on location information. The uniform system offers benefits to many.

The aim of the project for utilising nature data in forestry was to improve the readiness of forestry operators in Pirkanmaa to consider natural values in silvicultural and forestry operations. The most important means for achieving this included gathering of a comprehensive nature data base and integration of area-ecological reviews into forest management planning. This data would then benefit the targeting of forest management planning and advisory services, the development of their contents and the targeting of support financing.

The project was led by the Forestry Centre of Pirkanmaa and implemented in cooperation with the Forestry Training Programme of Tampere Polytechnic. The Steering Group consisted of representatives from all forest-related interest groups in Pirkanmaa. The project that was launched in autumn 2003 was implemented on financing through the Act on the Financing of Sustainable Forestry and on support from Metsämiesten Säätiö Foundation.

Inclusion of nature data in location data

The project for utilising nature data in forestry consisted of four parts:

- Inclusion of nature data in location data
- Mapping of the mating places of the capercaillie and grouse
- Implementation training for the nature data system and nature management training
- Nature management plan for the forest owner

In the first part, location data and data on the characteristics of valuable nature targets and species, that has previously been scattered at various sources, has been collected into one place. This data has been stored in the location system (MapInfo) in the form of an easy-to-use nature data system.

The nature data collected into the system includes information that should already be considered in all forestry operations, based on the Forest Act, Nature Conservation Act, forest certification, quality or environ-

mental systems of the forest operators or nature management recommendations.

Compilation of the nature data system began by studying how to store and classify the different nature data in a way that would ensure the best possible usability for forest management planning, supervision and inspection and forest improvement. The nature targets are classified into targets to be considered according to legislation, forest certification and the recommendations for good forestry.

The targets in the various groups are presented on the map with outlines or dots of different colour. In addition to the location data, data on the characteristics of the targets, recommendations for their silvicultural and forestry operations and species descriptions for the targets have been stored into the system.

The species descriptions and recommendations for silvicultural and forestry operations have been compiled into easily readable fact sheets that can be forwarded to the landowner, owner of the felling rights and marker of the area for felling, or attached to the forest management plans or used as a help in forest-related advice. Most nature targets provide a link to the information sheets. There are also links for retrieving more information about the legislation behind the consideration of the targets.

Listing of species

The original aim of the project was to gather location information on endangered species from different sources, both nationally and regionally. The listing of species was compiled in cooperation with Pirkanmaa Environment Centre, Pirkanmaa Ornithological Society, Tampere Botanical Society and Tampere Entomological Society. There was no time to compile species lists for fungi.

The purpose of the species lists was to clarify the data gathering process, raise the significance of compiling the species data and prioritise selection of the species. The lists contained species threatened by forestry.

The forestry centres use the LuotsiGis location system. However, the nature data is stored into the location system based on MapInfo because this system offers more flexible processing of the data. The data on a target can be easily viewed with the Info tool. The information includes e.g. description of the target, the reasoning behind considering the target, observation date, data storage date and the name of the observer or the source of data.

The system is used by all forestry inspectors, forest management planners and employees in forest improvement. The data is stored on the server of the Forestry Centre. At the regional offices, the data is stored on the hard disk of each computer and the user is able to download the most recent **updates himself from the server**. Data from the system has also been delivered to the forest management associations.

This is a system the utilisation of which is only starting. The next step is to produce area-ecological reviews and various analyses.

The processing of species data will be a challenge also in the future. The practical implications on the work of e.g. forestry inspectors and forest management planners resulting from the species data in the nature data system require expertise in the field and shaping of uniform practices.

Another problem with location information is pinpointing its accuracy. This problem has been minimised by including only the most precise observations into the species data.

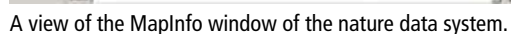
The nature data system enables

- gathering of dispersed nature data into one system;
- providing uniform nature data for the operators;
- fulfilment of the forest certification criteria more easily;
- utilisation of the system in selecting targets for the projects of the METSO programme.

- speedier preparations for forest management planning;
- the possibility to produce a forest management plan including nature values to the forest owner;
- the possibility to give the forest owner better expert advice regarding nature value issues.

- easier review of forest use declarations with regard to nature targets;
- easier informing of the flying squirrel targets in the forest use declarations to the Regional Environment Centre, the landowner and owner of the felling rights.

- easier study of the nature and environmental values included in the plans for construction and basic improvement of forest roads
- easier drafting of the water protection scheme required for ditch cleaning operations.



Hannu Ripatti, Area Manager
Forest Owners' Union of Lake-Finland

TAILORED TRAINING FOR WOMEN FOREST OWNERS INCREASES FOREST SKILLS AND POTENTIAL TO INFLUENCE

Every third private forest owner is a woman. According to research, women are interested in forest know-how and would like more information about how to manage their forests. The Woman and Forest training model developed in South Savo has been a success

The aim of the Woman and Forest training project launched by the Forest Owners' Union of Lake-Finland in 2003 was to develop the forest know-how of women and in this way to activate female forest owners in the management and use of their forests. Another important aim was to encourage wider seating of women into elected offices in forestry.

The training programme consisted of six in-class training session lasting 3 hours each, two four-hour forest teaching sessions and a day trip to a forest industrial

company. In addition, the training programme included homework to maintain the motivation for self-study.

The project was financed by South Savo Employment and Economic Development Centre through the European Agricultural Guidance and Guarantee Fund (EAGGF), by the municipalities and forest management associations in the region, by the course participants and by various cooperation partners. The area of operation was the Western District of the Forest Owners' Union of Lake-Finland.



Forest inventory was practiced on the grounds of Anttolanhovi at Anttola. Photo: Eliisa Kotro.

The closing seminar for the training programme was held in Mikkeli on March 12, 2005. All women participating in the training around the region were invited to the seminar. The photo shows some of the seminar participants having a break at Concert and Congress Hall Mikaeli. *Photo: Hannu Ripatti.*



Forest know-how increases confidence

The aim of the Woman and Forest project was to enroll about 200 female forest owners into the programme. However, the number of registrations was nearly double, in total 389.

There were participants from all municipalities in the project area. The training programme was implemented in 13 different locations with one of the sessions organised even in Helsinki. In total there were 16 training groups.

In the training sessions, the women forest owners demonstrated a lively interest in forest issues and were motivated to study them. During the programme their knowledge on forest ownership, silviculture, forest taxation, forest organisations, forest management planning, sales of timber, land use, forest certification and the various possibilities to use the forest increased.

As the course progressed the women felt they were becoming more equal with men when discussing forest issues. As a whole, it can be said that the training boosted the identity of women as forest owners.

Women into elected offices in the forest sector

During the course on forest organisations the women showed an interest for elected offices in the forest sector. The influence of female forest owners grew considerably as a result of the training. In the council elections of the forest management associations of the project area in autumn 2004, more than half of the

elected women, 17 out of 32, had participated in the course. Cooperation between female forest owners in rural areas and female forest owners living away from their forests increased and improved during the training. Networking was promoted during the training programme and a voluntary contact information list was compiled and distributed to the course participants on the list in two training groups.

The Woman and Forest project and its results have also been presented as an exemplary project in the report "EU programmes as a support for the living conditions of rural women – a study on the results of rural development programmes and best practices", published by the Ministry of Agriculture and Forestry (2/2005).

Womens' Key to Forests continues the work

The great popularity of the Woman and Forest project encouraged the organisers to apply for a corresponding training project for female forest owners also in the Eastern District of the Forest Owners' Union of Lake-Finland. The new project, **Womens' key to Forests** was launched in autumn 2004 in the municipalities of the operating region of South Savo Employment and Economic Development Centre. The new project has about 190 participants.

FINNISH FORESTS MEET FORESTS OF THE WORLD AT THE ADVISORY BOARD FOR INTERNATIONAL FOREST POLICY

One of the cornerstones of Finnish forest policy, namely participation and involvement, is also realised in Finland's international forest policy. The Advisory Board for International Forest Policy acts as an important link between national and international forest policy issues.

Forest issues were selected as one of the focal points of international cooperation of Finland in the early 1990s. Execution of the resolutions and promotion of the recommendations of the 1992 United Nations Conference on Environment and Development in Rio de Janeiro call for national as well as international measures from the forest sector.

The Advisory Board for International Forest Policy, or its predecessor to be more exact, was established in 1993. The Advisory Board is an organ appointed by the Council of State for addressing international forest issues ranging from bilateral cooperation to global political processes under the UN that affect the forests.

The task of the Advisory Board is to channel the views and motions of various interest groups and ministries into Finland's actions in international forest policy. In addition, the tasks of the Advisory Board include informing the domestic players in forest policy about the decisions made at international meetings and about other topical issues. The Advisory Board became an official work group under the Forest Council as the National Forest Programme was launched.

Involvement of operators through the Advisory Board

The Advisory Board for International Forest Policy has members from four ministries (Ministry of Agriculture and Forestry, Ministry of the Environment, Ministry for Foreign Affairs and Ministry of Trade and Industry) and from nine administrative organisations and interest groups (University of Helsinki, the Finnish Forest Research Institute, Metsähallitus, Forestry Development Centre Tapio, Finnish Forest Industries Federation, Central Union of Agricultural Producers and Forest Owners MTK, WWF Finland, Finnish Association for Nature Conservation and METO – Forestry Experts' Association).

The aim of the Advisory Board is reciprocal communication and exchange about the issues of international fo-

rest policy. The Advisory Board discusses both upcoming international meetings and evaluates the results of already concluded meetings. In this way, the interest groups have access to the latest information of new issues that may affect forestry in the future, either through national or EU legislation.

In return, a great deal of wide-based forest sector know-how gained at the meetings of the Advisory Board and channeled into good ideas and opinions accompanies the official Finnish delegates to the international meetings. Whenever the international meetings are not closed the Finnish delegation often includes representatives from the interest groups. This promotes the operation of the international forest sector in all respects.

In addition to the members, the minutes of the Advisory Board meetings are distributed to about 60 recipients in various administrative sectors, consultancies, research organisations and companies in the forest sector.

Advisory Board as a work group under the Forest Council

The Advisory Board for International Forest Policy was established already before the present National Forest Programme was drafted. As a part of the Programme, the Advisory Board was "submitted" to the Forest Council that directs the National Forest Programme. This has proven a good solution and has shown that international forest policy is an integral part of realising the National Forest Programme.

The Chairman of the Advisory Board reports regularly to the Forest Council about topical issues for the Forest Council to take a stand regarding Finland's policies. This creates a direct channel to the central decision-makers of the interest groups. Indirect influencing is equally important. The Advisory Board and the Forest Council consist largely of the same organisations. The participation of the representative of a certain interest group in the

Forest Council should be based on preliminary discussion and reporting already within that interest group, in order to be as productive as possible.

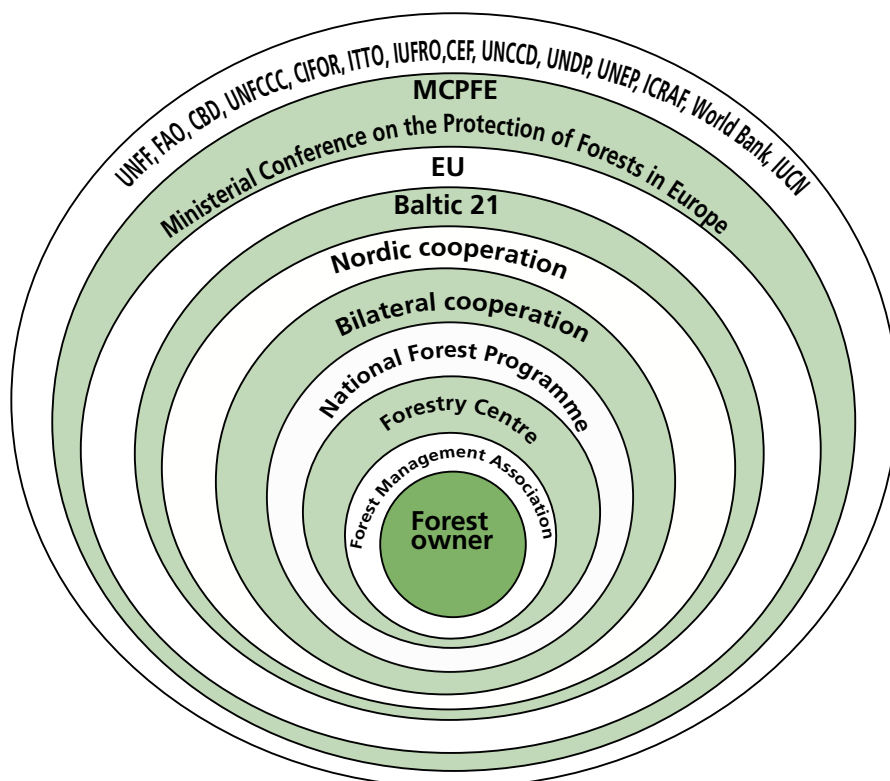
Other groups addressing international forest issues

In addition to the Advisory Board, international forest issues are also addressed e.g. in the Administrative Work Group on International Forest Issues and in the EU Sub-committee of Forest Policy. The issues addressed in each group are different, which makes separate organs necessary. The EU sub-committee participates in the official preparation of Finland's EU policies. There are committees for each branch of Government. The Administrative Work Group, in turn, centres on very detailed preparation, especially concerning the UN Forum on Forests and in part also other global processes.

Future role of the Advisory Board

The number of international processes relating to forests has grown in the last twenty years and will continue to increase. The Advisory Board for International Forest Policy will thus continue to be an important forum for unification also in the future when formulating stands to forest policies. The official relation of the Advisory Board to the Forest Council is significant and should be continued.

In the work of the Advisory Board, meetings focusing on a single particular issue and addressing it through comprehensive presentations have proven to be most useful. The aim is to increase the number of such meetings. An important albeit scarcely used part of the work of the Advisory Board are open seminars focusing on a special theme. These have been organised from time to time, for example preceding especially important international meetings or in connection with visits of international operators to Finland.



Forest questions always have a local and global dimension. The ecological, social and economic aims of sustainable forestry, national forest programmes and international treaties play a role on all levels of forest policy.

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