

In 1993, and after five decades, the Forest Act adopted by Parliament passed the responsibility for managing forests from the state back to their owners. Since forests are, under the Slovenian Constitution, a natural resource for ecosystem services available to all inhabitants, the state has limited the absolute availability of this resource in the same way as for other key natural resources. Forest owners can now, for example cut trees only according to the forest management plans (FMP), which are adopted by the state after gathering the opinions of all stakeholders (the forest service, owners, local communities, NGOs, etc.). To compensate for restrictions, facilitate the implementation of forestry regulations and ensure the sustainable, close-to-nature and optimal functioning of the ecosystem services of forests, the state provides forest-management guidance free-of-charge through the public forest service and many state subsidies are available for forest investments. In forests, the application of chemicals continues to be prohibited, free access is assured and limited recreational harvesting of forest products, as well as beekeeping and hunting, are allowed. Bees, which are essential for agriculture, acquire about 80% of the pasture in forests.

To facilitate the achievement of goals in dialogue with the state, forest owners over a certain threshold of the amount of cadastral income are obliged to join the Agriculture and Forestry Chamber (https:// www.kgzs.si/). At present, over 90 000 or 22% of all forest owners are enrolled in the Chamber. The Chamber holds the PEFC certificate for Slovenia. with 24% of Slovenian forests certified by the end of 2018. Forest owners may voluntarily merge within the framework of cooperatives and forest owners' societies according to their interests. At the end of 2018 approximately 4 000 members and their cover organization, the Association of Forest Owners of Slovenia (https://www. slovenski-gozdovi.org/), were part of some thirty organizations. Most of their current activities are related to non-productive integration elements, with some political demands.

Ministry of Agriculture, Forestry and Food

The highest authority in the country responsible for the regulation, development and protection of forests is the Ministry of Agriculture, Forestry and Food (MAFF; http://www.mkgp.gov.si/). The field of forests and forestry at the Ministry is managed by the Forestry Division within the Directorate for Forestry, Hunting and Fisheries. It monitors the forest conditions and develops system solutions for the sustainable development of forests ecosystems and biodiversity, as well as all the environmental, production and social functions of forests. The Ministry includes the State Secretary, who also covers the field of forestry and the Directorate for Forestry and Hunting.

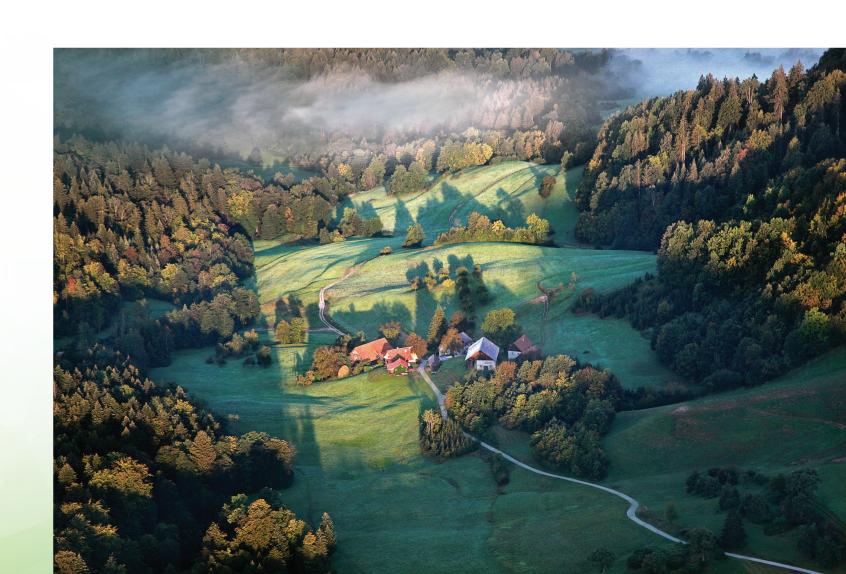
Roles of the Forestry Division:

- monitoring of forest conditions and system solution development in the fields of forests, forestry, forest nursery and seed production;
- conducting proceedings for the adoption of administrative plans;
- monitoring the proceedings of silvicultural and safety measures or biological investments in forests;
- monitoring and reviewing the operations of the Slovenia Forest Service;
- monitoring of educational and research activities within the Division's work scope;
- designing and monitoring programmes for the construction and maintenance of forest roads and monitoring forest-work technologies;
- monitoring economic performance and forestry activity costs, developing standards for forest investment and co-financing;
- monitoring of the forest products market;
- fixing the prices of services which are co-financed from the budget of the Republic of Slovenia.

Forestry inspection is carried out by the Forest Inspectorate, operating within the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries (http://www.ikglr.gov.si/), and this body employs 16 inspectors in total.

Approximately half of Slovenian forests are part of the NATURA 2000 network for the protection of rare plant and animal species and habitat types. This work, in addition to the protection of large carnivores, is governed by the Ministry of the Environment and Spatial Planning (MOP; http://www.mop.gov.si/). A considerable part of the operational work in the mentioned area, in particular the elaboration of proposals for the management of large carnivores, the assessment of damage by protected animal species, the operation of the intervention group for dealing with problems with large carnivores, and the like, is carried out by the Slovenia Forest service.

The Forest Act (1993) established the Public Forestry Service (PFS) for the implementation of forestry regulations, which are mainly performed by the Slovenia Forest Service (SFS) and the Slovenian Forestry Institute (SFI). The SFS activity is fully financed from the budget of the Republic of Slovenia, and services for are virtually free of charge for users.



Slovenia Forest Service (SFS)

SFS (http://www.zgs.si/) is a key public institution, established on 1st of May 1994 by the Republic of Slovenia, which performs public forestry service in all Slovenian forests, irrespective of ownership, as directed by the Ministry of Agriculture, Forestry and Food. SFS performs tasks based on approximately one hundred legislative regulations, the basic Forest Law, the Law on Forest Reproductive Material, the Conservation of Nature Act and the Law on Wildlife and Hunting. SFS monitors the state and development of forests, implements forestry and hunting planning, takes care of silviculture and forest protection, designates trees for felling, directs building of forest road and skidding ways, takes care of tree seed-banks, develops a forest database, takes over subsidized works, monitors the EU's Common Agricultural Policy, advises forest owners and informs decision makers and the

general public about forest developments, among other tasks. Ten of the 12 special purpose hunting reserves (HRSP) in Slovenia are managed by SFS, where activities related to hunting tourism are carried out, and the activities of HRSP are entirely financed by the revenues from this. SFS participates in several international projects, which supports the acquisition of the required knowledge and experience, and the implementation of measures in some areas of forestry, hunting, nature protection and forest functions. SFS employs 655 people (2019) in the PFS-area, 62 to carry out HRSP work, and more than 20 who work exclusively on projects. The number of personnel has decreased by about 100 over the last ten years due to costsaving measures by the state. The SFS operates in the central and 14 regional units of Slovenia, the latter being divided into 69 local units and 400 forest districts.



Figure 40: 14 Regional units of the Slovenia Forest Service

One of the basic tasks in the implementation of forestry policy in the development of forests is forestry and hunting planning and its implementation through forest owners. SFS produces forest management plans at three levels by applying prescribed procedures involving all stakeholders, including owners, local communities or the state, nature conservation organizations, non-governmental organizations, hunters and others:

- Strategic: 14 regional forest plans are provided, one for each regional unit every 10 years, with the average size of approximately 100 000 ha per unit. Guidelines from the Institute of the Republic of Slovenia for Nature Conservation (IRSNC) are included, and public discussions provide further input in the process of establishing the plans. Content: strategy of forest and game management, solving large-scale problems, forest functions and multipurpose forest management. Plans are adopted by the government based on a previous agreement with three ministries (the ministries responsible of forestry, environment and culture).
- Tactical: from 233 forest management plans in total, 10% are elaborated every year; the average size of the unit is about 5 000 ha. These plans are provided based on data from the 102 000 permanent sample plots, terrestrial stands inventory and other sources. Guidelines from the IRSNC are included, the local community is obliged to give an opinion and public discussions are held as part of the process of developing a plan. Content: defined management goals guidelines and measures, defined available cut and silviculture/protective measures, measures for NATURA 2000, etc. Such a plan is adopted by the Ministry of Agriculture, Forestry and Food.

• Operational: silvicultural plans are provided for units of 30 to 50 ha in size, based on the forest stand inventory data. They represent the background for the selection of harvested trees and for financial subsidies. Content: detailed description of the forest conditions and management goals (available cut, management approach, technology limitations, etc.). Remarks from public discussions are integrated into the plans, which are eventually adopted by the local forestry units.

Game management plans are included at the longterm (strategic) and annual (operational) levels. Annual game management plans are adopted by the Ministry of Agriculture, Forestry and Food.

The implementation of plans considers the requirements of forest owners after logging, construction of roads, silviculture, protection, forest restoration and the like. In all procedures, the SFS issues official decisions and approves regular works or imposes certain tasks in the case of forest risks (diseases, insects).

The SFS also educates forest owners to carry out safer work with more economic value. Public relations are of great importance, and are achieved by popularization of forests, informing the public, providing information of public interest, and so on. One of the main target groups for long-term education is primary school children.

One of the most extensive tasks for SFS owners is the selection of trees for felling. In regular logging, the forest owner expresses a request (for logging) and in accordance with the forest management plan, together with the district forester, they select and mark the trees. The owner receives a legal decision approving the action and later performs the felling, harvesting and transport of the trees either alone or with the help of the appropriate company. After the completion of the work, the district forester checks the appropriateness of the execution and records the quantity harvested. In the case of sanitary felling, damaged or attacked trees are usually first discovered by an employee of the SFS who issues an order for remediation to the owner within the appropriate deadline. If the

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owner of the forest does not perform the requested work, and in cases when there is a possibility that disease will spread, the execution is provided by SFS at the expense of the forest owner.

In Slovenia about 20% of all forest areas are in state ownership, and until recently these were managed by the Fund of Agricultural Land and Forests. In practice, these forests were managed by the previously state-owned forest management companies which had been granted 20-year concessions. After the expiry of the concession contracts, starting from July 1, 2016, the newly established Slovenian State Forest Company (SSF; http://www.sidq.si/), started to manage state forests, including the management, disposal and purchase of forest areas. In the future, the company will carry out up to 20% of forest production in its own capacity, while other facilities will be leased by the company based on tenders. Wood from state forests is sold based on the government regulations, and mostly based on long-term contracts with business partners, partly also on bidding.

The basic national forestry document is the Resolution on the National Forest Programme 2007. http://www.pisrs.si/Pis.web/ pregledPredpisa?id=RESO56), adopted by the National Assembly of the Republic of Slovenia. It is a basic strategic document aimed at defining a national policy for the sustainable development of forest management. RNFP aims to preserve the forest and ensure its multifunctional role, including the environmental, social and economic aspects. Based on the current situation and goals set, the document contains a long-term vision of management, which, in addition to the development guidelines of the narrow forestry sector, also identifies links in the field of environmental protection and nature conservation, economic sectors related to timber processing, and all other areas that are interested in forests and forestry.

The National Forest Programme (NFP) also implements the Environmental Action Programme at the national level, defining the following priorities: climate change, nature and biodiversity, environment and health, and quality of life, natural resources and waste. The European Strategy for the Sustainable Use and Management of Natural Resources is also a starting point for the NFP, based on regional characteristics and an ecosystem approach. Based on the RNFP, the National Assembly adopts the Law on Forests. The Government and the MAFF adopt the relevant regulations based on the Forest Law.

Slovenian Forestry Institute (SFI)

The Slovenian Forestry Institute is a public research institute of national importance, which conducts basic and applied research on forests and forest landscapes, forest ecosystems, wildlife ecology, hunting, forest management, and other uses of the resources and services forests provide. The scientific knowledge from these fields helps further the research on forest biodiversity and its management in relation to climate change.

As part of its research programme and related studies, the Institute also provides forestry and environmental services in the public interest. Another of the Institute's functions is to provide scientific knowledge on all aspects of sustainable development, with the purpose of increasing knowledge and awareness of the importance of forests within the environment and the importance of forest management. In short, the Institute is a scientific, professional, and cultural storehouse for Slovenia's relationship with its forests and the resources and services they provide.

The institute bases its research on scientific excellence and professional competence. The research it conducts on forest biodiversity and its management in relation to climate change gives the Institute a key role in increasing knowledge and awareness of the importance of our forests and the way we interact with them. The Institute's work reinforces its position in society. Highly regarded both at home and abroad, it is Slovenia's principal treasury of knowledge, innovation, and creative ideas in researching forests, forest ecosystems, wildlife ecology, hunting, forest management, and the use of the resources and services that forests provide. As part of its research programme and related studies, the Institute acts with public authority granted under the Forest Act and provides forest and environmental public services.

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Sustainable development is not possible without professional foresters. The study programme qualifies students for complete ecosystem forest work in accordance with modern principles of close-to-nature, multipurpose and sustainable management. Such a scheme requires linkage among ecological, economic and technical sciences. It requires knowledge of forest ecosystems, the social aspects of forest management, the various techniques and technologies used in forest management and familiarity with modern methodological tools. An advantage of the study programme is the emphasis on individual and seminar practice, which is partially carried out in the forest.

Students obtain a university academic degree in forestry. Graduates can obtain employment in public forestry services, organizations for wildlife management and nature conservation, schools (upper secondary and higher education) and private business sector. More and more opportunities are provided by self-employment - independent entrepreneurs (primary wood processing, forest construction, wood trade, arboriculture, ornamental tree production, ecotourism, private advisory agencies in forestry, biological engineering, spatial planning, mountain area management and sanitation of ecological points). There are also increased employment possibilities in (non)forestry secondary schools and in the sphere of extracurricular activities. The spheres of waste and communal management are also promising. Due to the abundance of forests and their importance in Slovenia, the demand for forestry professionals in administration, and in nature conservation governmental and nongovernmental organizations, is increasing. The tradition of close-to-nature forest management in Slovenia also provides employment possibilities abroad.

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Forestry secondary level education in Slovenia is carried out by the Secondary Forestry and Wood School of Postojna (http://sola.sgls.si/) and the Secondary School of Forestry Maribor (https://www.lsmb.si/). Higher vocational education in the direction of forestry and hunting is carried out by the Higher Vocational College Postojna (http://www.vspo.si/).

In addition to the listed organizations, which originate from the sphere of owners or are directing forest development, other bodies with influence on forest decisions are, for example, hunting clubs, the Hunting Association of Slovenia, non-governmental organizations, local communities, etc.



Figure 41: Slovenian Forestry Institute (Photo: R. Šipić)