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Forest Land Ownership Change in Poland

COST Action FP1201 FACESMAP Country Report



COST Action FP1201
Forest Land Ownership Change in Europe:
Significance for Management and Policy
(FACESMAP)

Forest Land Ownership Change in Poland

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COST (European Cooperation in Science and Technology) is a pan-European intergovernmental organisation allowing scientists, engineers and scholars to jointly develop their ideas and initiatives across all scientific disciplines. It does so by funding science and technology networks called COST Actions, which give impetus to research, careers and innovation.

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Background of the project

Forest ownership is changing across Europe. In some areas a growing number of so-called “new” forest owners hold only small parcels, have no agricultural or forestry knowledge and no capacity or interest to manage their forests, while in others new community and private owners are bringing fresh interest and new objectives to woodland management. This is the outcome of various societal and political developments, including structural changes to agriculture, changes in lifestyles, as well as restitution, privatization and decentralization policies. The interactions between ownership type, actual or appropriate forest management approaches, and policy, are of fundamental importance in understanding and shaping forestry, but represent an often neglected research area.

The European COST Action FP1201 FOREST LAND OWNERSHIP CHANGES IN EUROPE: SIGNIFICANCE FOR MANAGEMENT AND POLICY (FACESMAP) aims to bring together the state-of-knowledge in this field across Europe and can build on expertise from 30 participating countries. Drawing on an evidence review across these countries, the objectives of the Action are as follows:

- (1) To analyse attitudes and constraints of different forest owner types in Europe and the ongoing changes (outputs: literature survey, meta-analyses and maps).
- (2) To explore innovative management approaches for new forest owner types (outputs: case studies, critical assessment).
- (3) To study effective policy instruments with a comparative analysis approach (outputs: literature survey, case studies, policy analyses).
- (4) To draw conclusions and recommendations for forest-related policies, forest management practice, further education and future research.

Part of the work of the COST Action is the collection of data into country reports. These are written following prepared guidelines and to a common structure in order to allow comparisons across the countries. They also stand by themselves, giving a comprehensive account on the state of knowledge on forest ownership changes in each country.

The common work in all countries comprises of a collection of quantitative data as well as qualitative description of relevant issues. The COUNTRY REPORTS of the COST Action serve the following purposes:

- Give an overview of forest ownership structures and respective changes in each country and insight on specific issues in the countries;
- Provide data for some of the central outputs that are planned in the Action, including the literature reviews;
- Provide information for further work in the Action, including sub-groups on specific topics.

A specific focus of the COST Action is on new forest owner types. It is not so much about “new forest owners” in the sense of owners who have only recently acquired their forest, but the interest is rather on new types of ownership – owners with non-traditional goals of ownership and methods of management. For the purpose of the Action, a broad definition of “new forest owner types” was chosen. In a broad understanding of new or non-traditional forest ownership we include several characteristics as possible determinants of new forest owners. The following groups may all be determined to be new forest owners:

- (1) individuals or organizations that previously have not owned forest land,
- (2) traditional forest owner categories who have changed motives, or introduced new goals and/or management practices for their forests,
- (3) transformed public ownership categories (e.g., through privatisation, contracting out forest management, transfer to municipalities, etc.), and
- (4) new legal forms of ownership in the countries (e.g. new common property regimes, community ownership), both for private and state land.

This embraces all relevant phenomena of changing forest ownership, including urban, absentee, and non-traditional or non-farm owners as well as investments of forest funds or ownership by new community initiatives, etc. Although the COST Action wants to grasp all kinds of ownership changes it has to be noted that the special interest lies on non-state forms of ownership.

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Acronyms and abbreviations

CEE	Central and Eastern Europe
CEPF	Confédération Européenne des Propriétaires Forestiers [Confederation of European Forest Owners]
FRA	Forest Resources Assessments
IBL	Instytut Badawczy Leśnictwa [The Forest Research Institute]
NGO	Non-Governmental Organisation
OED	Oxford English Dictionary
PZZL	Polski Związek Zrzeszeń Leśnych [The Polish Union of Forest Associations]

1. Introduction

1.1. Forests, forest ownership and forest management in Poland

The total area of forests in Poland is 9.16 million hectares (Central Statistical Office, figure as of 31 December 2012), placing forest cover at 29.3%. But according to the international assessment standard, which takes into account land related to forest management, the forest area in Poland as of 31 December 2012 was 9.37 million hectares.

Forests in Poland are mainly publicly owned, accounting for 81.2% of the total. The National Forest Holding manages 77.3% of the total forest area. The remaining area is administered by National Parks - 2.0%, the state Agricultural Real Estate Agency - 0.4%, and municipal and urban authorities - 0.7%.

The ownership structure of forests in the post-war period has not changed very much. Small changes in forest ownership during that time were due to afforestation.

The Forest Act of 1991 governs all forms of forest ownership. In accordance with this Act, the minister of the environment supervises the management of State Treasury owned forests and the district governor supervises forests not owned by the State Treasury.

The National Forest Policy was adopted in 1997, specifying the tasks of multifunctional forest management, as well as the organizational, economic and legal conditions for carrying out sustainable forest management.

1.2. Overview of the country report

Public forests, comprising over 80% of the total, dominate the Polish landscape, which is relatively unusual in this part of Europe. With the change of the political system in 1989 came attempts to privatize public forests, but such initiatives were not accepted by society.

Private forests, at slightly above 18% of the total, are highly fragmented – the average private forest area is just over one hectare – and not a significant factor in the Polish forest sector. Hence, not much research is available on private forests. The studies conducted

focused on agricultural farms that had forests and used data from the National Agricultural Census. There is a lack of knowledge about private forest owners, of whom approx. 30% live in cities. Preparation of the present report was based on a few available scientific papers and largely on available statistical data and expert opinions.

Changes in forest ownership in Poland were mainly due to afforestation, which increased the area of private forests. But no studies have been conducted on new or non-traditional forest owners. Some forest owners have an unconventional approach to their property, but there is no research in this area – for example, forest commons are open to tourism, but data on this, with some exceptions, are not available.

The existing legal system in Poland does not have built-in solutions to support the management of private forests. Existing regulations, such as the Act on the Management of Land Commons of 1963, require substantial amendment.

Regulations on inheritance or marriage in Poland are generally applied to land, but there are no specific rules concerning forests. The lack of regulations in the law on inheritance was the cause of forest fragmentation in the past, mainly due to the partition of a farm between the owner's children. Today, due to the migration of people from rural to urban areas, the risk of forest fragmentation seems to have decreased.

There are no available data to analyse changes in the structure of private forest ownership. However, on the basis of our knowledge, such changes are rather insignificant.

Commons in Poland are a traditional and archaic form of collective land ownership and management, a relic of feudal relationships. There are over 5,000 commons in the country, which include agricultural land (mainly pastures), forests and water bodies. Over 700 are forest commons, with an area of 67,000 ha.

Until now, only 14 associations of private forest owners, local or regional, have been established. This number is still small

because of some existing barriers: there is a historically conditioned reluctance (the negative experiences of collective agricultural farms) and attitudinal aspects (strong individualism), as well as the extreme

fragmentation of forest ownership and the ageing of the rural population. Some hopes for improvement of the current situation may be found in the recently established (2011) Polish Union of Forest Associations.

2. Methods

2.1. General approach

According to the aims of the country report which is to give a comprehensive overview of forest ownership issues in the country, a mix of methods is applied. They include a literature review, secondary data, expert interviews as well as the expert knowledge of the authors.

Data include quantitative data (from official statistics and scientific studies) as well as qualitative data (own expert knowledge, expert interviews and results from studies). A literature review explicates the state-of-knowledge in the countries and contributes to a European scale state-of-art report. Case examples are used for illustration and to gain a better understanding of mechanisms of change and of new forest owner types. Detailed analyses of the collected data and case study analyses are done in subsequent work steps in the COST Action.

2.2. Methods used

Data were collected using the following methods:

- 1) Literature reviews (focused on scientific papers about private forests in Poland);
- 2) Analysis of statistical data from national forest inventories and those available from the Central Statistical Office;
- 3) Analysis of data from previous national or regional studies on forest ownership, to the extent that they exist, to answer quantitative questions on new forest ownership;
- 4) Interviews/consultation with experts to provide qualitative data, overview assessments, and case examples;
- 5) Own expert knowledge.

3. Literature review on forest ownership in change

The COST Action national representatives aimed to review and compile information on changes in forest ownership in their countries based on scientific and grey scientific literature, including reports and articles in national languages and official statistics, formal guidance or advisory notes from official websites, etc.

The scope of the literature review is as follows:

- Forest ownership change (with a specific focus on new forest ownership types), private forest owners' motives and behaviour, management approaches for new forest owner types, and related policies and policy instruments.

The literature review consists of the following three steps: collection of all literature as defined relevant, detailed description of 10 most relevant publications, and a 1-3 pages summary according to the structure given in the guidelines. The full list of literature includes grey literature, i.e. literature not easily accessible by regular literature search methods (unpublished study reports, articles in national languages, etc.). These references are listed at the end of the report. The 10 detailed descriptions of publications are found in the Annex. The literature review contains the following questions: Which research frameworks and research approaches are used by research? What forms of new forest ownership types are identified? Which specific forest management approaches exist or are discussed? Which policies possibly influence ownership changes in the country and which policy instruments answer to the growing share of new forest owner types?

3.1. Research framework and research approaches

There are few studies on private forests in Poland. During the last 30 years, only two such studies were conducted, both by the Forest Research Institute (IBL): Gołos P. (2008) and Gołos P. (2011).

Research conducted by IBL allowed us, for the first time, to determine a number of issues: the ways timber harvesting is

managed, the expenditure and income related to forest management of the farms surveyed, the area of land registered in the geodetic register as agricultural farms (abandoned and waste land) overgrown with forests originating from natural regeneration.

In both studies, the questionnaire method was applied. In the first stage, the questionnaire was tested in one province and later at the national level. This was an interviewer supported questionnaire survey of randomly selected forest owners.

The collected data show that, due to their small area, forests in agricultural holdings are basically used by farmers as a timber warehouse for household needs. In the case of larger holdings, private forests are a source of a small amount of income, due to their high fragmentation. Farmers generate very low income from forests, do not invest in machines and equipment for timber production, and they usually perform forest operations by themselves.

The studies were focused on agricultural farms with forests and used data from the National Agricultural Census. There is lack of knowledge about the forest owners who live in cities – approx. 30 % of all private owners.

The research projects were financed by the Polish Ministry of Science and Higher Education.

3.2. New forest ownership types

The main changes in forest ownership in Poland occurred because of afforestation (increasing the area of private forests). No studies were conducted on new or non-traditional forest owners. There is information that some forest owners have an unconventional approach to their property, but there is no research in this area. For example, forest commons are open for tourism, but data on this, with some exceptions, are not available.

3.3. Forest management approaches

No studies have been conducted in this area.

3.4. Policy change / policy instruments

No studies have been conducted in this area.

4. Forest ownership

The aim of this chapter is to give a detailed overview of forest ownership in the country. The most detailed information on national level is often structured in different ways in different countries. In order to show the most accurate information, it was decided to use the national data sets in the country reports. In order to make this information comparable still, the information is also collected in an international format which is used in the Forest Resources Assessments by FAO. The transfer from national data sets to international definitions is, however, not always easy. This report therefore critically assesses in how far the national categories and definitions may be transformed into the international FRA data structure or in how far there are inconsistencies between them.

4.1. Forest ownership structure

4.1.1. Definitions

According to the Forest Act, a forest owner is defined as any natural person or legal entity who is the owner or perpetual user of a forest and an autonomous holder, user or tenant of the forest.

Public forests

Public forests include: forests owned by the State Treasury (State Forests, national parks, stock of Treasury Agriculture Property and others) and municipal forests.

State Treasury forests:

- *State Forests* – forests that are managed by State Forests National Holding, controlled by the Ministry of the Environment.
- *National park forests* – as part of national parks, controlled by the Ministry of the Environment.
- *Stock of Treasury Agriculture Property forests* – controlled by the Ministry of Agriculture and Rural Development; relic of state agricultural farms.

- *Other forests* – controlled by other ministries (e.g. Ministry of Defence).

Municipal forests – owned by municipalities (gminas) with various forms of management.

Private forests

Private forests are those owned by individuals, communities, cooperatives and others.

- *Individual forests* – owned by natural persons or families.
- *Community forests* – belonging to property owned by many co-owners that cannot be divided, because forests are supposed to be managed as a whole.
- *Cooperative forests* – owned by cooperatives, companies, etc.
- *Other forests* – owned by churches, religious associations and unions, social organisation, private companies, etc.

4.1.2. National data set

The total area of forests in Poland is 9.16 million hectares (Central Statistical Office, figure as of 31 December 2012), placing forest cover at 29.3% (Fig. 1), but according to the international assessment standard, which takes into account the land associated with forest management, the forest area in Poland as of 31 December 2012 was 9.37 million hectares (Table 1 in Anex).

According to national statistical data, forest cover is 29.3%, but as measured by the international assessment standard (no inland waters), it amounts to 30.6%. The amount of forest *per capita* is 0.24 ha. A National Programme for the Augmentation of Forest Cover was adopted in 1995. The main aim of the Programme is to increase forest cover to 30% by 2020 and to 33% by 2050.



Figure 1: Forest cover [%] in Poland by province (source: *Forests in Poland 2013*)

Forests in Poland are mainly publicly owned, accounting for 81.2% of the total, of which 77.3% is administered by State Forests, 2.0% is in national parks, 1.0% is in other state-owned forests, and 0.9 is owned by municipalities (Fig 2).

The remaining forest area of 18.8% is privately-owned, of which 17.7% is individually owned and 1.1% is found in other private ownership arrangements.

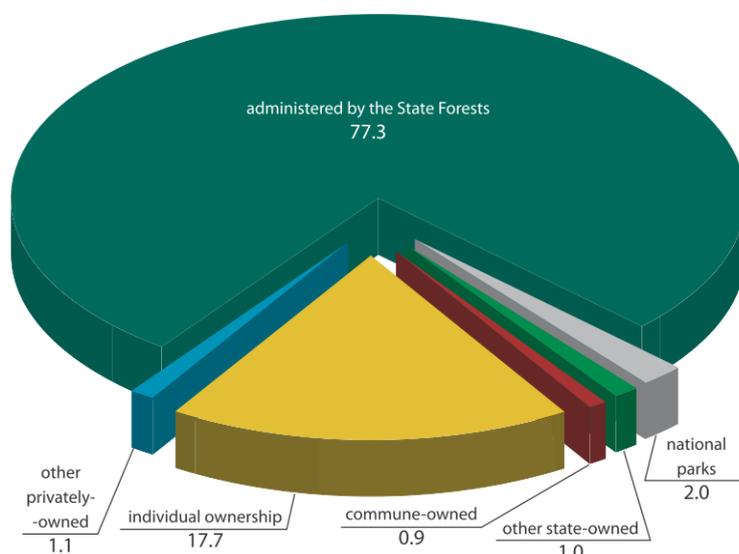


Figure 2: Ownership structure of forests in Poland (source: *Forests in Poland 2013*)

The ownership structure has not changed significantly since the end of the last war. After the war, 15% of forests were left in private hands, in contrast to other countries of the region. In the period of 1995-2012, the share of privately-owned forests has increased from 17.1% to 18.8%, mainly as the result of the afforestation of agricultural land (Table 2 in Anex). In the same period,

the share of publicly-owned forests decreased from 82.9% to 81.2%.

The share of privately-owned forests in Poland varies among the provinces – the highest is in the central, eastern and south-eastern parts of the country and the lowest, in the west – Fig. 3, Table 3 in Anex. This reflects the change of Poland's borders that occurred after World War II.



Figure 3: Share of private forests in the total forest area by province (Source: *Forests in Poland 2013*)

4.1.3. Critical comparison with national data in FRA reporting

FRA 2010 Categories	Forest area (1000 hectares)	Forest area according to Central Statistical Office (1000 hectares)
	2005	2005
Public ownership	7610	7410
Private ownership	1590	1590
...of which owned by individuals	1492	1492
...of which owned by private business entities and institutions	30	7
...of which owned by local communities	68	68
...of which owned by indigenous / tribal communities	0	0
Other types of ownership	0	0
TOTAL	9200	9000

The country report within this COST Action was based on the data available from the Central Statistical Office. Data from the Central Statistical Office were also the primary source of information for FRA. Thus, there are practically only small discrepancies between the two columns.

The main difference is in the case of public forests. Data from FRA is higher by 200,000 hectares. This is due to the addition of land reacted to forest management.

4.2. Unclear or disputed forest ownership

The problem of unclear or disputed ownership is irrelevant in Poland. But for small areas, the joint ownership of natural persons with the State Treasury is a specific and problematic form as a remnant of the former state policy.

4.3. Legal provisions on buying or inheriting forests

4.3.1. Legal restrictions for buying or selling forests

Restrictions on buying and selling forests in Poland relate to state forests (Forest Act), with the exception of the need to change the form of land use, arising, for example, from the necessity to build a road. There is an intention to prohibit the privatization of state forests by adding an appropriate clause in the country's Constitution.

There are no restrictions on buying and selling private forest land on the open market. A second possibility is the ability to purchase forest land from the state Agricultural Real Estate Agency. However, due to the low profitability of small forest ownership there is no demand for forest land.

According to the Forest Act, it is possible to sell a private forest to the State Forests or, in special cases, to exchange forest areas with this institution.

4.3.2. Specific inheritance (or marriage) rules applied to forests

Regulations on inheritance or marriage in Poland generally apply to farm and/or agricultural land, but there are no specific rules concerning forests.

4.4. Changes of the forest ownership structure in last three decades

4.4.1. Changes between public and private ownership

The share of private ownership has slightly increased during the last three decades, due to the afforestation of privately owned lands. In 1981, the share of private forests was 16.9%, whereas in 2012, this share increased to 18.8%.

Over the past few years, the afforestation program was based mainly on private land. However, annual afforestation has decreased in the last few years as the result of lower land supply in both private and state areas.

Moreover, in recent years there was a decrease of afforestation performed by State forests. It was due to a significant reduction of land provided for afforestation by the state Agricultural Real Estate Agency.

4.4.2. Changes within public ownership categories

There have been no significant changes during last three decades in public ownership. But there was a slight decrease in the share of public ownership.

Trade of forest land is not a significant reason for this decrease. The most important change factor is the afforestation of private agricultural land in the last decade, thanks to EU support for rural development programs.

4.4.3. Changes within private forest ownership

There is no available data for an analysis of changes in the structure of private forest ownership. However, on the basis of our knowledge, such changes are rather insignificant.

4.4.4. Main trends of forest ownership change

Across Europe, the following drivers for ownership changes had been identified in the COST Action:

- Privatization, or restitution, of forest land (giving or selling state forest land to private people or bodies)
- Privatization of public forest management (introduction of private forms of management, e.g. state owned company)
- New private forest owners who have bought forests
- New forest ownership through afforestation of formerly agricultural or waste lands
- Changing life style, motivations and attitudes of forest owners (e.g. when farms are given up or heirs are not farmers any more).

Trends in forest ownership: New forest ownership through...	Significance*
• Privatization, or restitution, of forest land (giving or selling state forest land to private people or bodies)	0
• Privatization of public forest management (introduction of private forms of management, e.g. state owned company)	0
• New private forest owners who have bought forests	1
• New forest ownership through afforestation of formerly agricultural or waste lands	3
• Changing life style, motivations and attitudes of forest owners (e.g. when farms are given up or heirs are not farmers any more)	1
• Other trend, namely:	

* 0 (not relevant); 1 (to some extent); 2 (rather important); 3 (highly important)

In the last several years, afforestation was motivated mainly by economic factors, such as subsidies from the state budget and the European Union. For this reason, owners of farms and urban dwellers decided to buy agricultural land.

Agricultural land can be bought from the state Agricultural Real Estate Agency by tender, where the price is specified by an appraiser and farmers are favored in the right to purchase. It is estimated that 70% of the total afforestation and 100% of the afforested areas of more than 20 hectares was established on agricultural land purchased in recent years from the state Agricultural Real Estate Agency. Land can also be bought from the open market, where prices are regulated by market mechanisms.

This applies to a large supply of agricultural land of small area. However, the current average price of agricultural land in Poland is about 7 times higher than in 2004 (UE accession) and amounts on average 6700 euro for 1 hectare. It caused that afforestation based on existing financial rules became unprofitable. As a result the interest of landowners in afforestation has dropped considerably, regardless of the source of financing.

This is strictly connected with carrying out the National Programme for the Augmentation of Forest Cover. In recent years, interest in afforestation has decreased because the amount of subsidies is lower and there is a significantly lower supply of agricultural land available for afforestation.

4.5. Gender issues in relation to forest ownership

There are no statistics available in Poland enabling an analysis to be made of the gender structure in forest ownership.

4.6. Charitable, NGO or not-for-profit ownership of the forests

This section is concerned with forests owned by organisations such as conservation and heritage NGOs, self-organised community-based institutions and other philanthropic (“Characterized or motivated by philanthropy; benevolent; humane” OED) organisations. The management objective for these forests is usually to deliver social or environmental aims with maximisation of financial or timber returns as a secondary concern. Most owners are corporate and may invoke at least an element of group or participatory decision-making on management objectives and high ethical standards. It is possible for such ownership to be entirely private. However, the provision of public benefits (services (e.g. biodiversity, amenity, recreation etc.) which are free for everyone to enjoy or provide benefits to local communities (employment for disadvantaged people etc.) are sometimes recognised in the form of charitable registration. This in turn puts restrictions on the rights of the owners to use profits and to dispose of assets in exchange for tax exemptions and access to charitable funding.

Forests owned by ...	Yes	No	Uncertain
• Foundations or trusts			X
• NGO with environmental or social objectives			X
• Self-organised local community groups	X		
• Co-operatives/forest owner associations	X		
• Social enterprises			X
• Recognized charitable status for land-owners		X	
• Other forms of charitable ownerships, namely:		X	

Local community groups owning forests in the archaic form of commons is specific to CEE countries. In Poland, the total number of land communities (commons), mainly forests, pastures and ponds, is over 5000. There are over 700 forest commons with an area of 67,000 ha. The forests of some commons are not in good condition, but many of them are

quite well managed.

Since 2002 fourteen forest associations of private forest owners, local or regional, have been established. This number is still small because of some existing barriers: there is a historically conditioned reluctance (the negative experiences of collective agricultural farms) and attitudinal issues (strong

individualism), as well as the extreme fragmentation of forest ownership and the ageing of the rural population. Nevertheless, with a help of the Ministry of the Environment, the State Forests and the Department of Forestry at the Warsaw University of Life Sciences, the Polish Union of Forest Associations was established in 2011. The main problem of the Union is lack of funds for current activities (administration), as well as for joining CEPF (fee payments, travel costs). This situation is not comparable to other CEE states, where is a political will to support private owners and their associations as the result of the re-privatization and restitution of forests.

Most Polish politicians and society do not support the re-privatization of any state forests and so far this has not been carried out in Poland. The reason is the good condition of state forest management, the treatment of publicly owned forests as a national treasure, and concerns about the potential negative effects of privatization. A side effect of this situation is low interest in a change to private forestry.

4.7. Common pool resources regimes

Commons - forest common property regimes (CPR) are resource regimes where property is shared among users and management rules are derived and operated on self-management, collective actions and self-organization (of rules and decisions). Examples of traditional CPR regime are pastures, forest land communities in Sweden, Slovakia, Romania Italy and other European countries or irrigation systems in Africa or Asia. The number of new common property regimes is growing and it is challenge of this Action to transfer knowledge and skills of traditional CPRs to new CPRs and vice versa. Example of new CPR regime is community woodlands in UK, established in last 20 years mainly in Scotland, Wales. Our interest in "traditional" and "new" common pool resources regimes (CPRs) in European forest, is based on the understanding that robust resource regimes are critical for sustainable forest management regardless of the property rights. Ongoing practice shows that local land users (without ownership share) leased use

agreement may also be CPR regime if they have the rights to determine management rules typical for commons (e.g. self-organisation and shared rights and responsibilities). Thus proper rules on management (harvesting, decision making and conflict resolution mechanism, cost/benefit sharing, sanctioning etc) are key for sustainable use of CPR regimes.

Commons in Poland are a **traditional and archaic form of collective land ownership** and management, a relic of feudal relationships. There are **over 5000 commons**, which include agricultural land (mainly pastures), forests and water bodies. Over 700 are forest commons, with an area of 67,000 ha.

The term "common" does not mean an association of people; **Polish law defines it as a joint land property with specific characteristics**. In simple terms, it is a type of use allowing farmers to reap benefits from common land, also forests, because they have a share in it by living in certain villages or towns.

There are several types of commons, depending on their genesis. The first resulted from donations by royalty and bishoprics. The oldest commons date back to the 14th century. However, the vast majority of commons were established in the 19th century, during the partition of Poland, when feudal property was being liquidated.

The current regulations on commons were established by the Act on the Management of Land Commons of 1963 and since then, they have not been changed. This act is not coherent with the political system as changed after 1989, nor with current economic and social realities. This is problematic for owners and local authorities. An amendment to this act is being prepared. Its main purpose is to regulate the legal status of the property, which originates from prevailing property relations of past centuries, as well as the unfavorable political climate for owners after the war.

The Forest Act of 1991 changed regulations on the supervision of private forest management. As part of the decentralization of public administration after 1989, some responsibilities were transferred to local authorities, which include transferring supervision of private forest management to

district governors. They have the authority to delegate these tasks to local head foresters of the State Forests.

CASE STUDY 1: THE COMMUNITY OF 8 ENTITLED VILLAGES IN WITÓW]

The largest commons in Poland is the Community of 8 Entitled Villages in the Witów district of the Tatra Mountains (Carpathians). The total area of the commons is 3080 ha, but the exceptional feature is that 2230 ha of these forests are situated within the borders of the Tatra National Park.

The Community includes 2900 owners, who are farmers from 8 villages located at the foot of the mountains. The Community was established in 1819, when the Austrian Monarchy sold the forests to Count Jan Pajęczkowski, who then decided to sell the land to the highlanders. In this way, they became free men as owners of the forest.

After World War II, the Community prepared its first statute, which included a list of persons entitled to use the property. All shares in the Community used to be equal and each entitled person was allowed to have only one share. This situation was considered unfair because of issues related to inheritance and the family situations of particular heirs. Presently, whole shares have been divided by owners from three villages, while they are still whole in the other five due to difficulties in dividing them.

The Witów Community is an example of good forest management. From the beginning, it was a self-financing entity, independent of state subsidies. And this is in spite of the limitations they must comply with due to environmental protection regulations governing national parks. However, as a result of an agreement with the park, their income from tourism has surpassed that from selling wood.

5. Forest management approaches for new forest owner types

The Action is interested if there are any new forest management approaches that specifically address new forest owner types, or that could be particularly relevant for new forest owner types. We are aware that there is not much awareness for this and that there is not much literature available, however, we are convinced that this is an issue: if owners have different goals for their forests there must be new kinds of management, if they have not the skills any more to do it themselves then there must be new service offers, etc. There are assumingly implications in silviculture, technology, work organisation, business models, etc. Such new approaches may be discussed under the key word of new ownership types but often not.

5.1. Forest management in Poland

State Forests in Poland are managed either by The State Forests National Holding or National Parks authorities. The Forest Act, passed by the Polish Parliament already in 1991, is the legal basis for the management of both publicly and privately owned forests. According to this Act, a district governor (a district is the second level of local government administration in Poland) is responsible for supervising forest management in privately owned forests.

According to Polish legislation, a private owner has the right to forbid access to a private forest; however, this is seldom done because of the common tradition of free access to forests.

Over 70% of district governors signed a contract with the State Forests and accordingly, local head foresters were appointed to supervise the management of private forests in their administration areas. Details concerning this supervision are described in the agreement between district governor and local head forester, published in the journal of laws of the provincial governor. According to the Act on Forests, State Forests are obliged to provide advice and assistance to private forest owners on forest management.

This advice and assistance is provided through:

- advising on forest management,
- offering forest tree seedlings,
- preparing, carrying out and incurring the costs of large scale treatments to protect the forest in case of outbreaks of pest infestations,
- organizing certain business activities (including timber sales) based on an agreement with the private forest owner,
- performing large scale forest inventories (in the case of Poland's NFI, a large proportion of the 28,000 plots is located in privately owned forests).

After EU accession, Polish foresters from the State Forests began providing assistance to private owners with afforestation. Particularly, they assist with the preparation of afforestation plans when private owners want to apply for financial subsidies from the Rural Development Programme. Moreover, foresters initiate the process of accessing financial compensation for private forest owners when windstorms, floods and other disasters occur.

The forest management of privately owned forests is problematic mainly due to their extremely high fragmentation, where an average area of a single forest holding is 1.3 ha. In such cases, private forest owners are not interested in adopting or carrying out innovative (new) forest management and, in most cases, it is difficult to introduce actual forest management regulations.

The Forest Act of 1991 changed the regulations on the supervision of private forest management. As part of the decentralization of public administration after 1989, some of these tasks were transferred to local authorities, such as the supervision of private forests management to district governors. They have the authority to delegate these tasks to local head foresters of the State Forests.

Forest management services are mainly carried out by forest owners. Only in the case of a small number of new forest owners, local

forestry contractors are appointed to perform forest services. However, it is very difficult to provide reliable figures on the scale of the engagement of forest service centres in privately owned forest. It is used by only a small number of forest owners.

5.2. New or innovative forest management approaches relevant for new forest owner types

We do not know of any new forest management approaches in Poland that are especially relevant for new forest ownership types.

5.3. Main opportunities for innovative forest management

The main opportunities for innovative forest management can be seen in the changes taking place in Polish society – primarily in the growing interest of active leisure time. This is seen when an owner of a farm with a forest, for example, organizes horse riding excursions along forest paths or bird watching.

Another opportunity could be the formation of local clusters, including, among others, wood processing plants and forest owners. In this case, there are also opportunities to involve private forest owners in the production of wood as energy fuel. The demand for wood, and the vision of potential profit, may encourage forest owners to change their

approach to forest management practices. However, while agro-tourism activities can be conducted individually, activities in a cluster requires the active cooperation of a group of owners or an association, even if just to reduce labour costs and learn from each other.

5.4. Obstacles for innovative forest management approaches

Although the area of private forests presently accounts for 18.8% of the total national forest cover, the performance of private forestry in comparison to the State Forests is less significant. This is mainly due to the extremely high fragmentation of private forests, where the average area of a single forest holding is 1.3 ha. In such a situation, private forest owners are not interested in adopting or carrying out innovative (new) forest management practices. Private forest owners do not have specialized means of production and mainly work in the forest themselves. Forest owners seldom consider their forests as a source of income.

The afforestation programme, financed by EU funds, slightly changed the attitude of owners who previously had not considered their forests as a source of income. Some new forest owners bought agricultural land or abandoned farmland to plant tree stands in order to receive subsidies for the afforestation and silviculture of newly established forests. These “new” forest owners perceive the funds received from subsidies as an important income source.

6. Policies influencing ownership development / Policy instruments for new forest owners

Policy and ownership are related in various ways: policies directly or indirectly influence ownership development or even encourage or create new forms of ownership; and, policy instruments are emerging that respond to ownership changes, including instruments supporting new types of owners e.g. through advisory services, cooperative or joint forest management, etc.

6.1. Influences of policies on the development of forest ownership

Public forests dominate in Poland, with a percentage of over 80%, a relatively unusual situation in this part of Europe. After the change of the political system in 1989, there were attempts to privatize public forests, but they did not meet with social acceptance.

The lack of regulations on inheritance caused forest fragmentation in the past. Forest fragmentation was mostly the result of the partition of a farm among an owner's children. At the moment, due to the significant migration of people from rural to urban areas, the risk of fragmentation is lower.

The most important policy instrument fostering the afforestation of agricultural land is the National Program for the Augmentation of Forest Cover. In the last decade, 111,800 hectares of agricultural land have been afforested (Table 2). Afforestation of agricultural land during the last decade occurred mostly on private land (72,800 ha), whereas 39,000 hectares of state agricultural land was afforested.

The Act on the Afforestation of Agricultural Land was passed in 2001. It enabled private land owners to receive public financial support for afforestation. After accession to the EU in 2004, rural development programs include support for afforestation measures targeted to private land owners. Separate acts for these measures are being prepared.

There are no policies creating new legal forms of ownership. This was not the purpose of the National Program for the Augmentation

of Forest Cover, but in a sense, it contributed to the creation of a new type of owner.

6.2. Influences of policies in forest management

Simplified forest management plans should be prepared every ten years. According to the Forest Act, the district governor is obliged to fund the cost of plans prepared for privately owned forests. However, in Poland, the lack of funds in local government administration, i.e. districts, makes it difficult to prepare these forest management plans. Only about 2/3 of privately owned forests have current forest management plans. Therefore, about 1/3 of privately owned forests are managed on the basis of outdated forest management plans.

However, recent changes may result in an improvement of this situation. A Forest Data Bank was established (in 2013), to which local governments must deliver data on private forests. This has stimulated the preparation of forest management plans. The Forest Data Bank was developed by the Bureau for Forest Management and Geodesy, which fulfilled a contract commissioned by the General Directorate of State Forests, entitled: "Implementation of a concept on the establishment and functioning of a data bank of forest resources and the condition of forests for all forms of ownership". The main purpose of the Forest Data Bank is to provide information about the condition of forests, changes in the forest and forest management over time for all forms of ownership in relationship to the protection of nature and the state of the natural environment. This information plays a crucial role in different levels of the organization and management of forestry, environmental protection, science and statistics distributed for public use and international statistics, as well as spatial planning. Forest Data Bank is available at <http://www.bdl.lasy.gov.pl/portal>.

Forest management plans in private forests are prepared under the supervision of the State Forests.

There is no compensation provided to owners for restrictions in forest areas at Natura 2000

sites. Natura 2000 sites represent approximately 20% of the land area of the country. Over 40% of forest area is under Natura 2000 and the vast majority of it (over 90%) is located in State Forests.

6.3. Policy instruments specifically addressing different ownership categories

There are no special policy instruments addressing different ownership categories, however, in the National Forest Policy (1997) there are some general provisions concerning the management of private forests. So far, very few of them are implemented.

6.4. Factors affecting innovation in policies

The main factor affecting innovation in policies in the category of private ownership is the large fragmentation of privately owned forests, as well as the lack of associations and a political lobby. The reluctance of owners to organize themselves in associations is understandable given the experiences of the former political system. The recently established (in 2011) Polish Union of Forest Associations has just taken its first steps.

It was established with the help of Ministry of Environment, Department of Forestry in Agricultural University in Warsaw and the State Forests. One of the main tasks of the Union is development of regional structures of associations. However, lack of financial funds and legal basis for obtaining them is the barrier for such activity, as well as for the realization of the idea of accession to CEPF.

CASE STUDY 2: THE POLISH UNION OF FOREST ASSOCIATIONS (PZZL)

The first step in establishing the Polish Union of Forest Associations was an understanding signed in October 2010 by representatives of the Ministry of the Environment, Ministry of Agriculture and Rural Development, General Directorate of State Forests, National Council of Agricultural Chambers and associations representing the owners of private forests.

The founding meeting of the Polish Union of Forest Associations took place during a scientific conference, entitled „Managing privately owned forests in Poland”, held on November 26, 2011 at the Warsaw University of Life Sciences. The PZZL Founding Committee, State Forests Information Centre and Academic Circle of Forestry Students of the Forestry Faculty at the Warsaw University of Life Sciences organized the conference. Six associations of private forest owners were represented and selected to the Board of PZZL. These were:

- Niebyleckie Association of Private Forest Owners,
- Nadmorskie Association of Private Forest Owners,
- Regional Association of Private Forest Owners of Radom,
- Social Initiative Association of Sidzina,
- Włociańskie Association of Private Forest Owners of Bukowsko,
- Zawojskie Association of Private Forest Owners.

The Polish Union of Forest Associations was registered in the National Court Register on May 25, 2011.

The aims of the Polish Union of Forest Associations are:

1. To build the capacity of the Union to represent the community of private forest owners and users in Poland,
2. To promote activities to increase the forested area of Poland,
3. To promote sustainable forest management in non-state forest holdings,
4. To develop educational activities about the forest,
5. To promote the principles of sustainable development and support the principles of civil society.
6. To assist with the resolution of legal and political issues related to forest management in non-state forest holdings,
7. To act as a bridge, ensuring cooperation between forest associations, public authorities and private entities in the country and abroad.

7. Literature

Act on Management of Land Commons (1963)

Czerepko J. 2014. Idea i realizacja założeń sieci Natura 2000 w leśnictwie. [The idea and implementation of the Natura 2000 network in forestry]. *Postępy Techniki w Leśnictwie* Nr 126: 7-11.

Forest Act of 1991. *Journal of Laws of the Republic of Poland – Dz.U.* 1991.101.444, with later amendments.

Forests in Poland 2013. PGL LP, Warszawa.

Gołos P. 2008. Wspólnoty gruntowe – tradycyjna forma gospodarowania lasami [The commons – a traditional form of collective land management], Warszawa, *Sylvan* no. 2: 54-68

Gołos P. 2011. Private forests in Poland – results of questionnaire surveys covering the network of test forest holdings, Warszawa. *Folia Forestalia Polonica*, series A, 2011, Vol. 53 (1): 25-42.

National Programme for the Augmentation of Forest Cover 1995 (ren. 2003) Ministry of Environmental Protection, Natural Resources and Forestry, Warszawa.

State Forest Policy 1997. Ministry of Environment, Natural Resources and Forestry, Warszawa.

Statistical yearbooks of Forestry 1991-2012. Central Statistical Office. Warszawa.

Zając S., Gołos P., Geszprych M. 2004. Prawne formy zrzeszeń prywatnych właścicieli lasów. [Legal forms of associations of private forests owners] Warszawa. *Sylvan* no. 4: 40-52

8. Annexes

8.1. Tables with detailed description of the 4 most important publications

SELECTED REPORTS/PUBLICATIONS	
Full reference of study/publication	Zajac S., Gołos P., Geszprych M. (2004) <i>Prawne formy zrzeszeń prywatnych właścicieli lasów. [Legal forms of associations of private forests owners]</i> Warszawa. Sylwan nr 4: 40-52
English language summary/abstract	This paper assesses the benefits to private forests owners of joining forest associations and presents the respective legal regulations in force in Poland and selected European Union countries. The examples of countries with many years of experience (Germany, Austria, Finland and others) in forming associations of private owners show that the participation of private owners in such associations can provide significantly advantages. Collective management of forest resources can first and foremost serve the rational management of private forests and identify measures to decrease business costs with a simultaneous increase of revenues from timber sales. The process of forming forest associations by private forests owners should be supported particularly by the state administration and territorial units of local government. The Polish legal system provides two forms of organizing the cooperation of private forest owners: land communities or associations.
Language of the study/publication	Polish
Type of organization conducting the study (in case of multi-institutional studies multiple answers allowed)	<input type="checkbox"/> University <input checked="" type="checkbox"/> Public Research Institute <input type="checkbox"/> Private Research Institute <input type="checkbox"/> Other (please name below) <input type="text"/>
Type of funding used (multiple answers allowed)	<input type="checkbox"/> Private Industry <input type="checkbox"/> Private other <input checked="" type="checkbox"/> National <input type="checkbox"/> Public Sub-National <input type="checkbox"/> Public EU/cross-national Europe <input type="checkbox"/> Public International beyond Europe <input type="checkbox"/> Public other
Regional scope	<input type="checkbox"/> Sub-national <input checked="" type="checkbox"/> National <input type="checkbox"/> Cross-national Europe <input type="checkbox"/> International beyond Europe
Theoretical approach	Political sciences
Methodical approach	Analysis of existing publications and legal documents

<p>Thematic focus</p>	<p>ownership change (incl. on changes in <input type="checkbox"/> quantitative terms, emerging new ownership types, etc.) <input type="checkbox"/> motives and behaviour of ownership types <input type="checkbox"/> new management approaches <input checked="" type="checkbox"/> policy instruments addressing ownership</p>
<p>Main results should be given here if not yet included in the summary.</p>	
<p>Weblink</p>	

SELECTED REPORTS/PUBLICATIONS	
Full reference of study/publication	Gołos P. (2008) <i>Wspólnoty gruntowe – tradycyjna forma gospodarowania lasami [The commons – the traditional form of collective land management]</i>, Warszawa, Sylwan nr 2: 54-68
English language summary/abstract	The term „commons” does not denote an association of people, as Polish civil law defines it as joint land property with specific characteristics. In simple terms, it is the right of inhabitants of a given locality to use common land only because they are its residents. Today, commons are the last form of collective management – a relic of the feudal past, when property was understood differently than it is today. The term „commons” in a historical context refers to „a group of people of common origin, traditions, values, etc. or linked by a common interest or property [Bańko 2005]. The first commons were established in the period of royal or bishop’s land grants; the history of the oldest ones dates back to the 14th century. A second wave of establishing commons took place during Poland’s partitions [Jastrzębski 1963]. Therefore, the history of the majority of commons dates to the 19th century, when feudal property was liquidated. On the basis of information obtained from 81% of the townships, there are 1,588 commons (farmlands, farmland-forests or forests) in 13 provinces and 158 districts in Poland. Management of all the inventoried commons covers 81,875.43 ha, including 48,339.17 ha of forests. According to the Central Statistical Office, 67,000 ha of forests (just 4.6% of the total area of private forests) are under common management [Zajac et al. 2004]. The article presents the distribution of regional commons, their general area characteristics and structure of the utilized lands, as well as selected elements characterizing forest management on those lands.
Language of the study/publication	Polish
Type of organization conducting the study (in case of multi-institutional studies multiple answers allowed)	<input type="checkbox"/> University <input checked="" type="checkbox"/> Public Research Insitiute <input type="checkbox"/> Private Research Institute <input type="checkbox"/> Other (please name below) <input type="text"/>
Type of funding used (multiple answers allowed)	<input type="checkbox"/> Private Industry <input type="checkbox"/> Private other <input checked="" type="checkbox"/> National <input type="checkbox"/> Public Sub-National <input type="checkbox"/> Public EU/cross-national Europe <input type="checkbox"/> Public International beyond Europe <input type="checkbox"/> Public other
Regional scope	<input type="checkbox"/> Sub-national <input checked="" type="checkbox"/> National <input type="checkbox"/> Cross-national Europe <input type="checkbox"/> International beyond Europe
Theoretical approach	Economics
Methodical approach	Two-stage questionnaire survey: 1/ local communes (in order to “inventory” existing commons); 2/ direct contact with selected commons

<p>Thematic focus</p>	<p>ownership change (incl. on changes in <input checked="" type="checkbox"/> quantitative terms, emerging new ownership types, etc.) <input checked="" type="checkbox"/> motives and behaviour of ownership types <input type="checkbox"/> new management approaches <input type="checkbox"/> policy instruments addressing ownership</p>
<p>Main results should be given here if not yet included in the summary.</p>	<p>Among all the commons, 23 have large expanses of forests (over 300 ha). There are 3 commons per district in the country. There is also a group of districts (22) with 10 or more commons. The total number of commons studied is 317, over 19% of all commons inventoried in Poland. Detailed studies show an average of 0.63 ha of forest per one household at 105 commons. The actual benefit that a user can draw from a commons is expressed in terms of the volume of harvested timber, which is: 0.17 cu. m./year/household for saw wood and 0.20 cu. m./year/household.</p>
<p>Weblink</p>	

SELECTED REPORTS/PUBLICATIONS	
Full reference of study/publication	Gołos P. (2008) <i>Stan lasów prywatnych w Polsce [The status of privately owned forests in Poland]</i> Sękocin Stary. <i>Leśne Prace Badawcze</i> Vol. 69 (4): 321-335
English language summary/abstract	The article presents selected economic aspects of privately owned forests and their management on the basis of findings of questionnaire surveys conducted in 2004 by the Forest Research Institute (IBL). A nation-wide sample of 520 forest estates that are part of agricultural farms were used in the research. IBL's findings were compared to similar, unpublished findings of questionnaire surveys conducted in 2002 by the Poznan Statistical Office in Wielkopolskie Province and in 2004 in the Wielkopolskie, Podlaskie and Podkarpackie Provinces. The purpose of IBL's and Poznan Statistical Office's research was to investigate the possibility of gathering information about privately owned forests on the basis of surveying a sample of forest estates by using questionnaires. IBL's research enabled, for the first time, to determine, among other issues, the ways harvested timber is managed, forest management expenditures and income of the surveyed farms, the area of land registered in the geodetic register as agricultural farms (fallow and waste land) that have become reforested as the result of natural regeneration. The results of similar surveys to be conducted in the future on a random sample of forest owners may be extrapolated at a defined tolerance to the whole population of forest estates. Moreover, detailed research will enable us not only to appraise the current condition of privately owned forests, but also to assess the anticipated directions in the development of this form of forest ownership.
Language of the study/publication	Polish
Type of organization conducting the study (in case of multi-institutional studies multiple answers allowed)	<input type="checkbox"/> University <input checked="" type="checkbox"/> Public Research Institute <input type="checkbox"/> Private Research Institute <input type="checkbox"/> Other (please name below) <input type="text"/>
Type of funding used (multiple answers allowed)	<input type="checkbox"/> Private Industry <input type="checkbox"/> Private other <input checked="" type="checkbox"/> National <input type="checkbox"/> Public Sub-National <input type="checkbox"/> Public EU/cross-national Europe <input type="checkbox"/> Public International beyond Europe <input type="checkbox"/> Public other
Regional scope	<input type="checkbox"/> Sub-national <input checked="" type="checkbox"/> National <input type="checkbox"/> Cross-national Europe <input type="checkbox"/> International beyond Europe
Theoretical approach	Economics with elements of sociology
Methodical approach	Questionnaire survey

<p>Thematic focus</p>	<p>ownership change (incl. on changes in <input type="checkbox"/> quantitative terms, emerging new ownership types, etc.) <input checked="" type="checkbox"/> motives and behaviour of ownership types <input type="checkbox"/> new management approaches <input type="checkbox"/> policy instruments addressing ownership</p>
<p>Main results should be given here if not yet included in the summary.</p>	<p>Surveyed forested farms consist of 1,692 complexes with an average area of 1.09 ha. On average, there are 3 forest complexes per farm. The forested area that is not in the official statistics, estimated on the basis of research results, could be approximately 300,000 hectares in the whole country. This is the result of natural succession, which is not taken into account in the land use register. The structure of timber harvests in terms of the type of cuts differs from the structure in the State Forests. In the forests of the surveyed households, 39% of volume was obtained from tending cutting and only 16% from clear-cuts. In the State Forests, these amounts are respectively 43 and 22%. The majority of harvested softwood in the surveyed households was used as a fuel (70%). The remaining part was largely consumed at the farms (almost 25%). In the case of hardwood, there is a much higher share of timber used for firewood (88%). A small proportion of respondents employ subcontractors – about 5%. The majority of the farms studied are equipped with the basic tools and equipment associated with harvesting and processing wood. More than 74% of surveyed households declared that they possessed a chain saw and circular saw. The most important costs related to forest management are: the purchase of materials and energy (36%), followed by the purchase of machinery and equipment (34%), taxes and charges (17%), and fees for contract work (9%). Average costs in the country in 2003 related to the private forest were at a level of 130 PLN/ha and 57 PLN/m³ timber. The test farm in 2003 earned nearly 450,000 PLN from forest revenues. The largest share of income was from savings in the form of wood used for one's own needs (81% of all income – an average of about 242 PLN/ha). Most forest owners seeking assistance sought the advice of a forester – 49%.</p>
<p>Weblink</p>	

SELECTED REPORTS/PUBLICATIONS	
Full reference of study/publication	Gołos P. (2011) <i>Private forests in Poland – results of questionnaire surveys covering the network of test forest holdings, Warszawa. Folia Forestalia Polonica, series A, 2011, Vol. 53 (1): 25-42.</i>
English language summary/abstract	Research on a national sample of 1,112 agricultural holdings with forests conducted by the Forest Research Institute in 2007 provided information on private forests owned by farmers. The collected data show that, due to their small area, forests in agricultural holdings play basically the role of a timber warehouse used by farmers for household needs. In the case of larger holdings, private forests are a source of a small amount of income due to their high fragmentation. Farmers generate very low income from forests, do not invest in forestry production machines and equipment, and usually perform forest operations by themselves.
Language of the study/publication	English
Type of organization conducting the study (in case of multi-institutional studies multiple answers allowed)	<input type="checkbox"/> University <input checked="" type="checkbox"/> Public Research Institute <input type="checkbox"/> Private Research Institute <input type="checkbox"/> Other (please name below)
Type of funding used (multiple answers allowed)	<input type="checkbox"/> Private Industry <input type="checkbox"/> Private other <input checked="" type="checkbox"/> National <input type="checkbox"/> Public Sub-National <input type="checkbox"/> Public EU/cross-national Europe <input type="checkbox"/> Public International beyond Europe <input type="checkbox"/> Public other
Regional scope	<input type="checkbox"/> Sub-national <input checked="" type="checkbox"/> National <input type="checkbox"/> Cross-national Europe <input type="checkbox"/> International beyond Europe
Theoretical approach	Socio-economics
Methodical approach	Direct questionnaire survey
Thematic focus	<input type="checkbox"/> ownership change (incl. on changes in quantitative terms, emerging new ownership types, etc.) <input checked="" type="checkbox"/> motives and behaviour of ownership types <input type="checkbox"/> new management approaches <input type="checkbox"/> policy instruments addressing ownership
Main results should be given here if not yet included in the summary.	

8.2. Forest ownership structure – detailed tables

8.2.1. Forest resources of all forms of ownerships in Poland

Table 1: Description of forest resources of all forms of ownerships in Poland and its changes in 1995-2012 (as of 31 XII indicated years) according to Central Statistical Office of Poland

Specification	1995	2000	2005	2008	2009	2010	2011	2012
TOTAL [thous. ha]	8946	9059	9200	9273	9296	9329	9351	9370
Forests	8756	8865	9000	9066	9089	9121	9143	9164
<i>Public</i>	7262	7341	7410	7431	7434	7435	7438	7439
<i>owned by State Treasury</i>	7186	7262	7328	7347	7350	7351	7354	7355
<i>of which:</i>								
<i>managed by the State Forests</i>	6868	6953	7042	7064	7068	7072	7077	7079
<i>national parks</i>	162	181	183	184	184	184	184	185
<i>stock of the Treasury Agricultural Property</i>	59	59	44	40	39	36	34	32
<i>commune owned</i>	76	79	82	84	84	84	84	84
<i>Private</i>	1494	1524	1590	1635	1655	1686	1706	1724
<i>of which:</i>								
<i>natural persons</i>	1397	1428	1492	1537	1557	1587	1606	1623
<i>land co-operatives (commons)</i>	68	69	68	68	68	67	67	67
<i>cooperatives ownership</i>	14	9	7	6	6	6	5	5
Land connected with silviculture	190	194	200	207	207	208	207	206
<i>of which managed by the State Forests</i>	187	189	194	200	200	201	200	200
Structure of forest ownership [%]:								
<i>Public</i>	82.9	82.8	82.3	82.0	81.8	81.5	81.3	81.2
<i>of which in TOTAL:</i>								
<i>managed by the State Forests</i>	78.4	78.4	78.2	77.9	77.8	77.5	77.4	77.3
<i>Private</i>	17.1	17.2	17.7	18.0	18.2	18.5	18.7	18.8
Forest area per capita in ha	0.227	0.232	0.236	0.238	0.238	0.237	0.237	0.238
Forest cover in %	28.0	28.4	28.8	29.0	29.1	29.2	29.2	29.3
Share of forest land in land area [%]	29.4	29.8	30.0	30.3	30.4	30.5	30.5	30.6

8.2.2. Afforestation of land in 1945-2012

Table 2: Afforestation of land in the years 1945-2012 according to Central Statistical Office of Poland

Specification	Total	Forests		Wooded land	
		of the State Treasury	not owned by the State Treasury	annual average	annual maximum
in thous. hectares					
1945–1949	67.0	58.4	8.6	13.4	.
1950–1955	185.7	93.1	92.6	30.9	46.1
1956–1960	226.5	114.5	112.0	45.3	62.1 ^c
1961–1965	277.6	152.1	125.5	55.5	56.4
1966–1970	176.7	106.0	70.7	35.3	48.6
1971–1975	94.1	55.5	38.6	18.8	21.8
1976–1980	78.5	47.5	31.0	15.7	17.7
1981–1985	31.7	21.2	10.5	6.3	7.2
1986–1990	35.9	21.6	14.3	7.2	8.6
1991–1995	53.4	35.2	18.2	10.7	15.6
1995	15.6	11.8	3.7	x	x
1996.....	17.5	12.1	5.3	x	x
1997.....	18.3	9.7	8.6	x	x
1998	16.9	10.8	6.2	x	x
1999	19.6	12.5	7.1	x	x
2000	23.4	13.1	10.3	x	x
2001	23.0	11.5	11.5	x	x
2002	20.3	9.7	10.6	x	x
2003	26.5	9.2	17.3	x	x
2004	12.7	9.7	2.9	x	x
2005	12.9	6.2	6.7	x	x
2006	16.9	4.5	12.5	x	x
2007	13.3	3.0	10.3	x	x
2008	7.9	2.9	5.0	x	x
2009	5.6	1.8	3.8	x	x
2010	5.9	0.7	5.1	x	x
2011	5.3	0.6	4.7	x	x
2012	4.9	0.4	4.5	x	x
1995–2012 ^b	266.4	130.2	136.2	14.8	26.5 ^d
1945–2012	1478.0	823.5	654.4	21.1	62.1 ^c

^{a)} Agricultural land useless to agricultural production and wasteland. ^{b)} Implementation of "National programme for increasing forest cover" ^{c)} Afforestation conducted in 1960 ^{d)} Afforestation conducted in 2003.

S o u r c e: "National programme for increasing forest cover" prepared by the Ministry of Environmental Protection, Natural Resources and Forestry, Warszawa, July 1995, and data of the CSO for the years 1991-2012.

8.2.3. Forest resources in private forests in Poland

Table 3: Forest resources in private forests in Poland (area of private forests by province in 2012, as of 31 xii) according to Central Statistical Office of Poland

Province	Private forest land			In total farm forestry							
	in ha	in % of total	with forest management plans	natural persons		land cooperatives (commons)		cooperatives ownership		other ^b	
			in % of private	in ha	in % of private	in ha	in % of private	in ha	in % of private	in ha	in % of private
Dolnośląskie	18200	3.0	77.4	16326	89.7	27.0	0.0	358.5	2.0	1488.5	8.2
Kujawsko-pomorskie	48866	11.3	87.2	46425	95.0	633.0	0.1	282.9	0.6	1525.2	3.1
Lubelskie	235172	40.0	64.1	224571	95.5	8999.1	1.5	145.0	0.1	1457.4	0.6
Lubuskie	11370	1.6	75.2	10706	94.2			118.0	1.0	546.0	4.8
Łódzkie	131448	33.4	96.8	124571	94.8	6043.1	1.5	133.3	0.1	701.2	0.5
Małopolskie	189082	43.0	15.5	170169	90.0	14030.7	3.2	244.9	0.1	4636.9	2.5
Mazowieckie	359226	43.4	79.2	345574	96.2	10468.9	1.3	309.2	0.1	2873.8	0.8
Opolskie	11901	4.6	87.8	10691	89.8	453.0	0.2	496.9	4.2	260.7	2.2
Podkarpackie	115472	16.9	79.6	105014	90.9	7084.1	1.0	394.7	0.3	2979.0	2.6
Podlaskie	201038	32.0	59.7	195217	97.1	3897.2	0.6	228.9	0.1	1695.1	0.8
Pomorskie	75198	11.0	92.2	73320	97.5	92.2	0.0	90.9	0.1	1694.8	2.3
Śląskie	78784	19.6	62.3	69911	88.7	7553.7	1.9	351.9	0.4	967.0	1.2
Świętokrzyskie	93226	27.8	67.4	85607	91.8	6838.1	2.0	247.0	0.3	534.1	0.6
Warmińsko-mazurskie	55118	7.2	42.5	52180	94.7	19.0	0.0	108.0	0.2	2810.3	5.1
Wielkopolskie	82996	10.6	84.9	78841	95.0	673.3	0.1	1332.4	1.6	2149.3	2.6
Zachodniopomorskie	17940	2.2	60.6	14313	79.8	2.7	0.0	463.8	2.6	3161.0	17.6
POLAND	1725036	18.8	67.6	1623435	94.1	66815	0.7	5306	0.3	29480	1.7

^{a)} Simplified forest management plans and inventories of state forest.

^{b)} Churches, religious associations and unions, social organizations, private companies, etc.



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