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*Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report*

Report on forest biological diversity in forests has been prepared on the base of wide consultations with:

- The Ministry of Environment, Department of Forestry and Nature and Landscape Protection;
- The Forest Research Institute, Department of Forest Ecology and Environmental Protection; Dr M. Falencka-Jabłońska, Dr A. Rachwald, Dr D. Dobrowolska, Dr D. Farfał;
- The Department of Natural Forests (Białowieża); Dr J. Gutowski;
- The General Directorate of the State Forests; Dr R. Kapuściński, Msc W. Fonder;
- Forestry Faculty, Warsaw Agricultural University ; Prof. A. Grzywacz.

During the preparation of the work use was made of the following policy and technical documents, as well as scientific reports and publications were used:

1. Dyrekcja Generalna Lasów Państwowych, Instytut Badawczy Leśnictwa, 1993, Program zachowania leśnych zasobów genowych i hodowli selekcyjnej drzew leśnych w Polsce na lata 1991-2010, Instytut Badawczy Leśnictwa, Warszawa, 1993
2. Grzywacz, A. (red), 1994, Polska Polityka Kompleksowej Ochrony Zasobów Leśnych, Fundacja SGGW
3. Ministerstwo Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa, 1997, Polityka Leśna Państwa, Oficyna Edytorska „Wydawnictwo Świat”, Warszawa
4. Rykowski, K., 1994, Kryteria i indykatory trwałego i zrównoważonego rozwoju lasów. Zarys problematyki i propozycje dla polskiego leśnictwa, IBL
5. Rykowski, K., 1996, Strategia ochrony różnorodności biologicznej w lasach. Sprawozdanie naukowe, IBL
6. Rykowski, K., 1998, Operacyjne wskaźniki trwałej i zrównoważonej, wielofunkcyjnej gospodarki leśnej na poziomie nadleśnictwa. Sprawozdanie naukowe, biblioteka IBL
7. Rykowski, K., Matuszewski, G., Lenart, E., (Ed.), 1999, Evaluation of the Impact of Forest Management Practices on Biological Diversity in Central Europe, Forest Research Institute, Warsaw
8. Six-Country Initiative, 1999, Government-led Initiative in Support of the UN Intergovernmental Forum on Forests (IFF) „Putting the IFF Proposals for Action into Practice”: Report of the International Expert Consultation, 29 June – 3 July 1998, Baden-Baden, Germany. Secretariat of the Six-Country Initiative, GTZ/TWRP, Eschborn 1998

9. Andrzejewski, R., Wisniewski, J., (Ed); 1996, Biodiversity: Concepts, Estimations, Problems of Protection and Formation. Instytut Ekologii PAN, Oficyna Wydawnicza
10. UNEP, Ministry of Environmental Protection, Natural Resources and Forestry, 1996, Programme of the conservation of nature and cultural values in forest districts. Proc. Of Seminar, Pionki, November 14-15, 1995
11. Polskie Towarzystwo Leśne, 1995, Ochrona różnorodności biologicznej w zrównoważonej gospodarce leśnej. Europejski Rok Ochrony Przyrody, Warszawa
12. Zielony, R., (Ed), 1995, Kierunki ochrony przyrody w lasach zagospodarowanych. Fundacja Rozwój SGGW, Warszawa

Some other documents related to forest biological diversity, issued in 1989-1997, have been useful in the preparation of the Report:

1. Ustawa o lasach (1991), (amended in 1997);
2. Program rozwoju wybranych dziedzin leśnictwa i ochrony ekosystemów w parkach narodowych na lata 1993-1997 (1993);
3. Program ochrony zasobów genowych i hodowli selekcyjnej drzew leśnych na lata 1991-2010 (1993);
4. Polska Polityka Kompleksowej Ochrony Zasobów Leśnych (1994);
5. Krajowy Program Wzrostu Lesistości (1995);
6. Strategia ochrony różnorodności biologicznej w lasach (1996);
7. Polityka Leśna Państwa (1997);
8. Kryteria i wskaźniki trwałego i zrównoważonego rozwoju lasów (1997);
9. Projekt „Zasad leśnych” jako założeń do nowelizacji Zasad hodowli lasu, Instrukcji zarządzania lasu, Instrukcji ochrony lasu i Zasad użytkowania lasu (1997);
10. Decyzja nr 23 Ministra Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa z dnia 8 listopada 1994 r. w sprawie ochrony i zagospodarowania Puszczy Białowieskiej;
11. Zarządzenie nr 11 Dyrektora Generalnego Lasów Państwowych z dnia 14 lutego 1995 r. w sprawie doskonalenia gospodarki leśnej na podstawach ekologicznych;
12. Zarządzenie nr 30 Dyrektora Generalnego Lasów Państwowych z dnia 19 grudnia 1994 r. w sprawie Leśnych Kompleksów Promocyjnych;
13. Decyzja nr 25 Dyrektora Generalnego Lasów Państwowych z dnia 5 lipca 1995 r. w sprawie wprowadzenia nadzwyczajnej ochrony starych oraz rzadkich drzew w Puszczy Białowieskiej.

**Decision IV/7 on Forest biological Diversity**

1. What is the relative priority afforded to implementation of this decision by your country?					
a) High		b) Medium	<b>X</b>	c) Low	
2. To what extent are the resources available adequate for meeting the obligations and recommendations made?					
a) Good		b) Adequate		c) Limiting	<b>X</b>
				d) Severely limiting	

3. Has your country assessed the status and trends of its forest biological diversity and identified options for its conservation and sustainable use? (Decision IV/7, paragraph 12)	
a) no	
b) assessment underway (please give details below)	<b>X</b>
c) assessment completed (please give details below)	
d) not relevant	
<b><i>If a developing country Party or a Party with economy in transition -</i></b>	
4. Has your country requested assistance through the financial mechanism for projects that promote the implementation of the focused work programme on forest biological diversity? (Decision IV/7, paragraph 7)	
a) no	
b) yes (please give details below)	<b>X</b>

***Programme element 1: Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations***

5. Has your country identified methodologies for enhancing the integration of forest biological diversity conservation and sustainable use into an holistic approach to sustainable forest management at the national level? (Work Programme, paragraph 13)	
a) no	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	<b>X</b>
d) not applicable	
6. Has your country developed methodologies to advance the integration of traditional forest-related knowledge into sustainable forest management, in accordance with Article 8(j)? (Work Programme, paragraph 14)	
a) no	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	
d) not applicable	<b>X</b>

7. Has your country promoted cooperation on the conservation and sustainable use of forest biological resources at all levels in accordance with Articles 5 and 16 of the Convention? (Work Programme, paragraph 15)	
a) no	
b) yes - limited extent (please give details below)	<b>X</b>
c) yes - significant extent (please give details below)	
d) not applicable	
8. Has your country promoted the sharing of relevant technical and scientific information on networks at all levels of protected forest areas and networking modalities in all types of forest ecosystems? (Work Programme, paragraph 17)	
a) no	
b) yes - limited extent (please give details below)	<b>X</b>
c) yes - significant extent (please give details below)	
d) not applicable	

***Programme element 2: Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences***

9. Has your country promoted activities for an enhanced understanding of positive and negative human influences on forest ecosystems by land-use managers, policy makers, scientists and other relevant stakeholders ) (Work Programme, paragraph 29)	
a) minimal activity	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	<b>X</b>
d) not relevant	
10. Has your country promoted activities to assemble management experiences and scientific, indigenous and local information at the national and local levels to provide for the sharing of approaches and tools that lead to improved forest practices with regard to forest biological diversity? (Work Programme, paragraph 30)	
a) minimal activity	
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	<b>X</b>
d) not relevant	
11. Has your country promoted activities with the aim of providing options to minimize or mitigate negative and to promote positive human influences on forest biological diversity? (Work Programme, paragraph 31)	
a) minimal activity	
b) yes - limited extent (please give details below)	<b>X</b>
c) yes - significant extent (please give details below)	
d) not relevant	

12. Has your country promoted activities to minimize the impact of harmful alien species on forest biological diversity? (Work Programme, paragraph 32)	
a) minimal activity	<b>X</b>
b) yes - limited extent (please give details below)	
c) yes - significant extent (please give details below)	
d) not relevant	
13. Has your country identified means and mechanisms to improve the identification and prioritisation of research activities related to influences of human activities, in particular forest management practices, on forest biological diversity? (Work Programme, paragraph 33)	
a) minimal activity	
b) yes - limited extent (please give details below)	<b>X</b>
c) yes - significant extent (please give details below)	
d) not relevant	
14. Does your country hold research results and syntheses of reports of relevant scientific and traditional knowledge on key forest biological diversity issues and, if so, have these been disseminated as widely as possible? (Work Programme, paragraph 34)	
a) not relevant	
b) some relevant material, but not widely disseminated	<b>X</b>
c) significant material that could be more widely disseminated (please give details below)	
d) yes - already widely disseminated (please give details below)	
15. Has your country prepared case-studies on assessing impacts of fires and alien species on forest biological diversity and their influences on the management of forest ecosystems and savannahs? (Work Programme, paragraph 35)	
a) no - please indicate below whether this is due to a lack of available case-studies or for other reasons	<b>X</b>
b) yes - please give below any views you may have on the usefulness of the preparation of case-studies for developing a better biological understanding of the problem and/or better management responses.	

***Programme element 3: Methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest biological diversity***

16. Has your country assessed experiences gained in national and regional processes, identifying common elements and gaps in existing initiatives and improving indicators for forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes - limited assessment made (please give details below)	<b>X</b>
c) yes - significant assessment made (please give details below)	

below)	
d) not relevant	
17. Has your country carried out taxonomic studies and inventories at the national level which provide for a basic assessment of forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes - limited assessment made (please give details below)	<b>X</b>
c) yes - significant assessment made (please give details below)	
d) not relevant	

***If you have ticked any of the boxes in questions 5 to 17 above which invite you to provide further details, please do so here.***

***(Information can include descriptions of methodologies and of activities undertaken, reasons for success or failure, outcomes and lessons learned)***

Like that on world forest biological diversity, the knowledge on biological diversity in Poland is limited. The transitory character of climatic conditions, and the geobotanical diversity resulting from them, as expressed by the potential vegetation cover including natural ranges of species occurrence, favours biological diversification of the flora and fauna across Poland. In our country over 50 000 biological species have been recorded, among with there are 32 000 species, including 31 000 invertebrates (estimated data) and almost 600 species of vertebrates, including 365-370 bird species belong (229 breeding), and 98 mammal species (including such large herbivores as the European bison (*Bison banasus*) and such large carnivores as the wolf, lynx and wild cat.

The flora of Poland comprises about 9 000 species, including about 5 000 species of higher plants, among which 2 300 are Angiosperms (2% arboreous species and 7% - shrub species). The fungi kingdom is composed of about 10 000 species.

The diversity of plant and animals species in Poland was maintained at a rather stable level through the recent decades and takes a very high position in this part of Europe. Nevertheless there have been declines in the numbers and rages of animal species – the great bustard and curlew, and for example the spruce among plants *Picea abies*, as well as increasing populations of many species – the European bison (*Bison banasus*), wolf (*Canislupus*), elk (*Alcesalces*), beaver (*Castor fiber*), and from among tree species - hornbeam (*Carpinus tetulus*) and lime (*Tilia sp.*).

Forests cover about 28% of the country and together with tree plantings are the natural structure dominating in the Polish landscape, being a favourable site for a majority of representatives of the native free-living flora and fauna.

About 65% of species occurring in Poland are forest or forest-related species. Forest-forming tree species number 38 of which 31 are broadleaved and 17 coniferous. The Forest Survey Instruction (1994) requires the listing of 69 tree and shrub species and 204 ground vegetation species in forest management plans.

Among the terrestrial vertebrates 43% are forest species, and a further 17% are the species of mire areas. Protection or restoration activities should therefore concern areas under forest management.

At the level of ecosystem diversity the forest-bog biocoenoses are especially well represented in Poland. A grainy mosaic of sites and ecosystems has formed numerous transition zones of high biological diversity.

The introductory extraordinary survey of natural resources on forest and non-forest areas, that was carried out in 1995 on the territory under the supervision of the State Forests organisation (1995), registered the occurrence of the most important forest species (these including 37 tree and shrub species, 247 ground vegetation species, 34 bird species and 6 mammal species) as well as spatial objects (nature reserves, old parks, land of ecological use and forest objects of non-conservatorial protection such as e.g. seed stands), point-sites (monuments of nature, documentation stands) and other forms of nature protection. The analysis of this material points to a need for periodical inventorying of nature resources in forests and forest land and a necessity to improve methods and means of data recording.

Poland asked the United Nation Environmental Program (UNEP) for financial assistance to develop policy and guidelines for the sustainable management of temperate forest ecosystems for the conservation of biodiversity in Central and Eastern Europe (1994-1995). In the years 1997 - 1998 Poland implemented the next project financed by UNEP's Regional Office for Europe: *Evaluation of impact of forest management practices on biological diversity in central Europe with a case study on Polish Forest Act and other regulations*. This project has been linked with the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) which provides a framework by which to implement the Convention on Biological Diversity (CBD). UNEP has assumed the lead on PEBLDS Action Theme 9 on Forest Ecosystems. The Project was also related to the *Working Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems* drafted jointly with the European Ministerial Process on Forests (Pan-European Process on the Protection of Forests), for the period 1997-2000. This Work-Programme assists in the implementation of PEBLDS Action Theme 9. It was adopted at the Fourth *Environment for Europe* Ministerial Conference in Arhus (June 1998). The Project constitutes an important step in the implementation of Objective 1, Action 1.2.:

Objective 1: Conservation and Appropriate Enhancement of Biodiversity in Sustainable Forest Management.



Action 1.2.: Develop knowledge on the impact of different forest management practices on biodiversity. Review the knowledge on how forest management systems/plan can maintain and enhance biological diversity, while ensuring their economic viability. The understanding and evaluation of impact of forest management practices on biological diversity is essential for assuring progressive improvement of forest ecosystems (...) this assessment plays a key role as a basis for the promotion of sustainable forest management.

The project contributes to UNEP Sub-Programme Element 1.2.: Caring for Biological Resources within the Programme of Work 1998-1999. Strategic Actions for the biennium include: 1.2.3.: Promote Sustainable Management of Biodiversity, of which one of the outputs is: Effective Forest Policies in Selected Countries.

The Project contributes to UNEP's active role in the implementation of the Intergovernmental Panel on Forests Proposals for Action, especially to Programme Element I.1.: Progress Through National Forest and Land-use Programmes.

The project focused on the analysis and evaluation of relevant Polish forest policy regulations, issued in the 90<sup>s</sup>, concerning both positive and negative effects of management practices on the biological diversity of production forests. It analysed above all the impact of the following operations:

- cutting practices, including thinning, final harvesting, etc.;
- stand improvement practices, including tending, fertilisation, drainage, etc.;
- regeneration practices, including reforestation and afforestation;
- protection against insects, fungi, ungulates, etc.;
- selection practices;
- ecotone management practices;
- impact of biodiversity protection rules on the forest economy and forest productivity.

The presented *Report* aims to reflect and interpret the impact of forestry practice on the forest biodiversity on four levels:

- genetic
- species
- ecosystem
- landscape (land use)

*Expert Reports and Scientific and technical analyses* are based on the best scientific knowledge and experience and be personal capacity of authors, as well as on the best recognition of Polish "field" reality.

Contributions make an attempt to analyse the “state of the art” of respective branches of forestry from two points of view:

- from the point of view of legislation (law) and official regulations (instructions), which are obligatory in forest management practice;
- from a practical point of view this means from the real application of the law (Forests Act) and real follow up of rules and recommendations in the field.

Both projects financed by UNEP have been published.

The relevant methodologies for enhancing the integration of forest biological diversity conservation and sustainable use into an holistic approach to sustainable forest management at the national level are identified mostly on theoretical and legislative levels.

Independently of the actual need for protection there is also a formal obligation of Polish forestry in this matter, in the form of the *Convention on Biological Diversity* signed by the Government and ratified by the Parliament of the Republic of Poland.

The protection and enhancement of forest biological diversity is an inseparable element of the concept of the sustainable and balanced management of forests. Such a management means *"suitable management and use of forests in such a way and at such rates that would conserve their diversity and ability to fulfil now and in the future important protection, economic and social functions at local, national and global levels inferring no damage to other ecosystems"* (II Pan-European Ministerial Conference on Protection of Forests in Europe, Helsinki, 1993).

Protection of biological diversity in forests is an integral part for the Polish policy of complex conservation of forest resources. The Forests Act of 1991, revised in 1997, contains many provisions ensuring sustainable forest management and the maintenance of the biological diversity of forests. Specifically:

Section 7 ensures the conservation of forests, their natural fragments, gene resources, landscape and climate;

Section 8 ensures the protection of forests and their sustainable use;

Section 13 ensures the conservation of biological diversity and protection against wild fires;

Section 14 ensures afforestation of waste lands;

Section 15 ensures conservation of protective forests (protecting soils, waters and settlements), conservation of inland dunes, wildlife refuges, endangered species, plots of scientific importance, areas of special management;

Section 18 provides an obligation for a forest management master-plan to be prepared and includes a programme of nature protection;

Section 30 forbids certain harmful activities listed.

*The National Policy on Forest* (MOSZNIL, Warszawa, 1997) extends the meaning of nature conservation beyond conservation itself, and this with reference to all forests. The goals of the special protection of nature in forests are built into the concept of sustainable, balanced, and multifunctional forest economy (SFM). Confirming the importance of forests as a main component within legal forms of nature conservation in Poland *The National Policy on Forest* points at the same time to the necessity of:

- embracing large spatial systems (physiocoenoses, mesoregions) within a system of conservation, together with their functional and structural bounds to the social and economic ambience;
- implementing forest management regulating rules into practice favouring the fulfilment of nature conservation requirements;
- abandoning the intensive use of natural forests and those in a near-natural state and intensifying wood production outside forest ecosystems instead;
- ensuring protection of the most valuable forest ecosystems and of the flora and fauna threatened components through special forest management, taking into account the highest conservation regulations.

The programme for the protection of ecosystems and safe technologies pays particular attention to:

- the preservation in a near-natural state, or re-creation, of bodies of water and watercourses within forests, and their biological management, and the restitution or protection of riparian and moist forests;
- the preservation in the natural state of biocoenoses of so-called areas of ecological utility – marshes, bogs, peatlands, heaths, dunes, boulder fields, rocky outcrops, clearings, alpine and other meadows and other forest land not subjected to reforestation but requiring protection;
- the retention in each stand designated for renewal by way of clear-cutting of some (5-10%) of the old trees to the time of their physiological old age or biological death, including trees with holes and dead trees as habitat for many species of forest biocoenoses;
- extending specific action for the conservation and protection of particularly valuable (key-stone or rare) components of biocoenoses (especially birds, ants, ground cover and species under legal protection);
- ensuring that management in stands that are special from the natural point of view is directed towards the overriding aim of conserving biological diversity, with the harvesting of timber being a side effect necessitated by the silvicultural and sanitation measures taken;

- the recommended augmentation of species composition and the mixing of species in line with the natural mosaic-like nature of habitats, in case where resources are being renewed artificially or self-seeded areas supplemented;
- the use of existing planted trees in the reforestation of agricultural lands, along with the leaving of small bodies of water and marshes and the use of the full diversity of habitats in the species enrichment of forest cultivation. In justified cases also the use of natural succession only.

Some other important conservation regulations occurred in Poland in the 1990s:

- *The Programme of forest gene resources conservation and selective breeding of forest trees in Poland, in the period 1991-2010* (1993);
- *Decision No. 23 of the Minister of Environmental Protection, Natural Resources and Forestry concerning the protection of Białowieża Primeval Forest* (1994);
- *The Decree of the Director-General of the State Forests on establishment of Promotional Forest Complexes* (1994);
- *The National Programme on the Argumentation of the Country's Forest Cover* (1995);
- *The Decree No. 11 of the Director-General of the State Forests on forest management practice based on ecological rules* (1995);
- *The Decree of the Director-General establishing the Programme on the Conservation of Nature and Cultural Values in Forest Districts* (1996).

All these formal regulations should be implemented in practice through operational documents: Guidelines of Forest Management, Sylvicultural Principles, Instruction of Forest Protection, and others, which are in preparation.

The limited extent of co-operation on a local level is expressed in unsatisfactory contacts between State Forests administrative units – Forest Districts, and local institutions dealing with nature protection like ecological clubs and schools, as well as with farmers, individuals and others. Forestry and foresters are considered to be factors damaging forest biological diversity. Only in a very few cases can one speak about co-operation between forest offices and schools. *The Program of Nature Protection in Forest Districts*, established by the National Forest Policy as an integrated part of the Management Plan, is still a matter of forestry and State Forests. A limited opening of forestry to co-operation with other institutions at the local level is provided by the Promotional Forest Complexes, which have a goal of the conservation of biological diversity on one hand, and co-operation with local people on the other. Every Promotional Forest Complex has a Socio - Scientific Board as an advisory group, composed of distinguished, local individuals – this could be a field of real co-operation in the conservation and sustainable use of

forest biological resources.

On the national level there are some programmes encouraging all actors to co-operate (i.e. the National Program for the Argumentation Forest Cover, Strategy of Biodiversity Conservation in Forests, Council of Forestry as an advisory group of experts in the Ministry of Environment), but they remain rather inactive or just as documents which are not fully realised.

International co-operation has a limited character. Special attention should be given to the Report financed by UNEP on “The Impact of Forest Practice on the Forest Biological diversity in Eastern and Central Europe” prepared by the Czech Republic, Slovak Republic, Lithuania and Poland (1998).

The sharing of relevant technical and scientific information on networks of protected forest areas is performed, not in the framework of special promotion action, but after current publication and reports related to nature conservation and sustainable forest management. Lately the number of seminars and conferences dealing with forest protected areas, as well as with implementation of “Proposals for Action” prepared by the IPF/IFF process has been increasing. Proceedings from these kind of activities are a good way to share technical and scientific information. The Pan-European Process on Forest Protection in Europe has created a group of experts to develop the definition of Protected Forest Areas (PFA) in relation to the IUCN categorisation for forestry use – a Polish expert participates in this group. A discussion on establishing some new National Parks or on enlargement of already existing ones as well as on the optimisation of a forest protected areas network is underway in Poland. There is a good opportunity for that now, thanks to implementation of the National Programmes for the Argumentation of Forest Cover.

Broad activities for an enhanced understanding of positive and negative human influences on forest ecosystems have been present in Polish forestry from the beginning of the 90s. The policy-makers and decision-makers (Parliamentarian groups) were engaged in enacting and enforcing the new Forests Act (1991, 1997) and National Policy on Forests (1997). The educational component of the new forest law as well as Promotional Forest Complexes has been considered one of the most important elements of the activity of the forestry sector. Many special educational programs, which explain positive and negative impact of human activities, have been established on the level of forest Districts. Some demonstration objects and areas have been established in forest stands to show crucial elements of forest technologies and operations. The public visiting these educational installations are mostly not from local communities, but from cities.

The educational component was recognized as a priority on account of the need to prepare the forestry services of the State Forests and the National Parks to undertake new tasks or to bring a greater nature-related element into tasks already implemented. The “Centre for Nature and Forest Education” has been established in Rogów (Forestry Faculty, Warsaw Agricultural University). The educational programme is realized by the preparing and implementation of the special programme for the forestry engineering services, the national administration, and school

teachers and for tourist guides concerning:

- the pro-ecological model of forest management;
- the protection of biological diversity;
- geographical information systems and teledetection in forest protection and spatial planning.

Educational programmes are being prepared for the needs of diploma training in the field of the protection of forest resources, for the level below engineer, in relation to general ecology, and with particular account taken of nature conservation in forests. The educational programme is dealing with the preparation and publishing of books, folders, posters and other publicity materials, including sets of handbooks, training materials and popular-science journals and magazines for young people at school and the wider public.

Moreover, some popular and professional publications, explaining the principles of sustainable forest management (SFM) and with a special emphasis on forest biological diversity, have been published.

The evaluation of current experiences from ongoing regional processes to develop criteria and indicators for forest biological diversity, is included in publications: *Criteria and indicators for sustainable forest development – An issues outline and suggestions for Polish forestry* (1994); *Sustainable and balanced forest development. Views – opinions – controversies* (1998); and *Evaluation of the Impact of Forest Management Practices on Biological Diversity in Central Europe* (1999). On such a basis, and after taking into account the environmental, economical and social conditions of Polish forestry, the *Operational indicators for sustainable and balanced, multifunctional forest management at Forest District level* (1998) has prepared.

There is not a special forest research taxonomic program in Poland; no regular specific taxonomic inventories in forests at national level are realized either. Only some occasional taxonomic observations, especially on invertebrates (insects) and the vascular plants of forest land are made as part of forest ecological studies. An inventory of forest biological diversity at national level, limited only to the main groups of flora and fauna, was carried out by the State Forests once in 1995. There are important needs for taxonomic studies in Poland, especially in relation to the lower taxonomic groups.