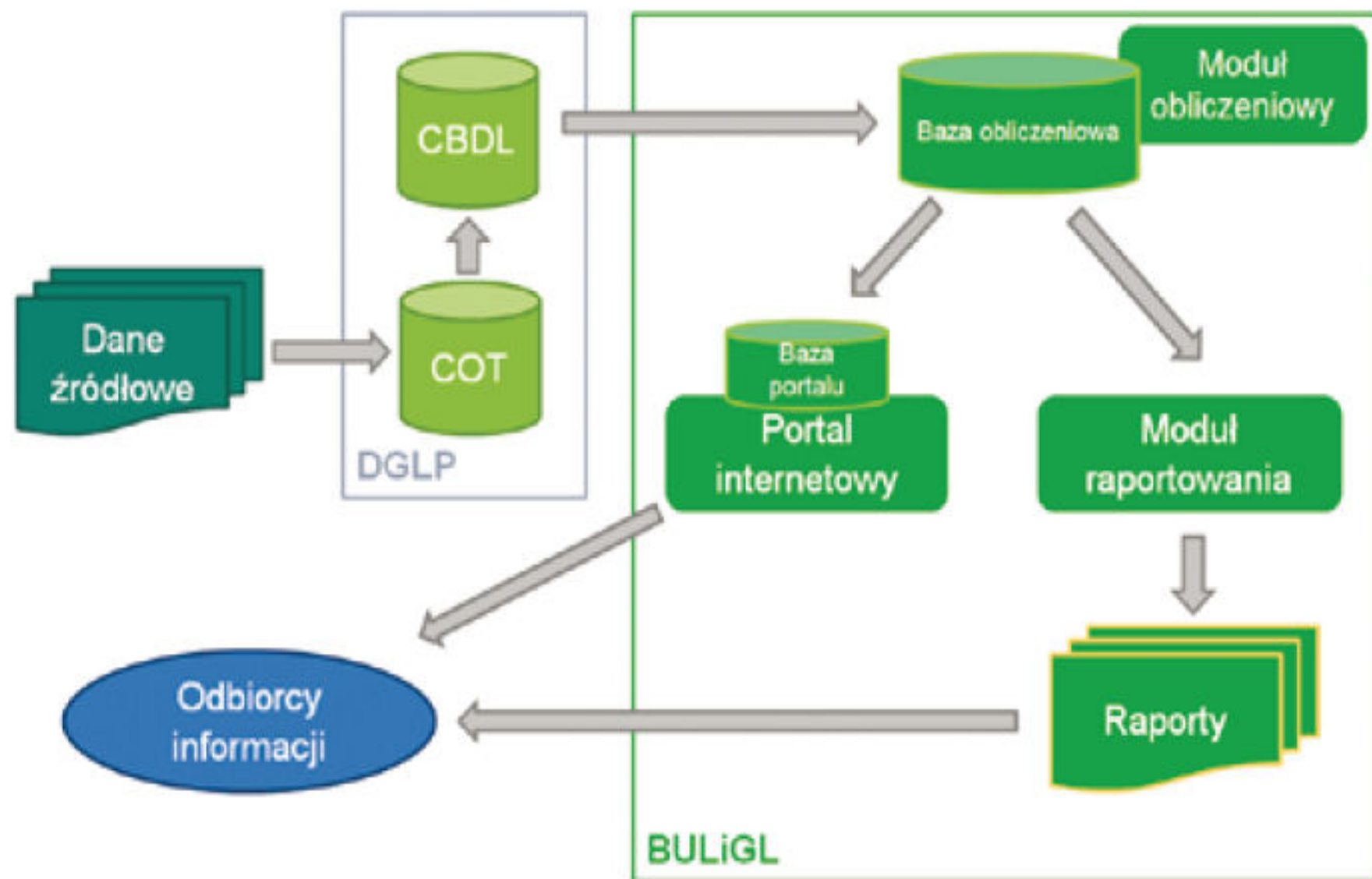


Wykorzystanie Banku Danych o Lasach w naukach leśnych i praktyce leśnictwa

*Znaczenie i budowa Banku Danych o Lasach w Polsce
BULiGL, Sękocin Stary, 14 listopada 2012 r.*



„Bank Danych o Lasach - Pełna informacja w zasięgu ręki”



Współczesna praktyka leśna

- Nowe wyzwania związane z warunkami przyrodniczymi i ekonomicznymi oraz ich zmianami
 - zmiany klimatyczne, kryzys gospodarczy, globalizacja
- Większa, niż kiedykolwiek konieczność wsparcia wynikami badań naukowych
- Konieczność działania w określonym kontekście politycznym

Współczesne nauki leśne

- Działalność prowadzona w różnych skalach
 - od poziomu sub-komórkowego do globalnego
- Interdyscyplinarność
- Nowe wyzwania związane z warunkami przyrodniczymi i ekonomicznymi oraz ich zmianami
 - zmiany klimatyczne, kryzys gospodarczy, globalizacja
- Silne związanie z praktyką i polityką

Nauki leśne a BDL

- Wspomaganie badań z różnych zakresów
 - wybór obiektów badawczych, informacje uzupełniające dane pochodzące z innych źródeł
- Źródło danych do prac z różnych zakresów
 - zasoby, produkcja, koszty, ...
 - również w kontekście międzynarodowym
- Podstawa badań z różnych zakresów
 - meta-analiza, *data mining*, ...

Cele BDL

- gromadzenie, systematyczne uzupełnianie, aktualizacja i przechowywanie danych o lasach wszystkich form własności,
- opracowywanie i przetwarzanie danych umożliwiające ich interpretację,
- umożliwienie prowadzenia analiz oraz prognozowania rozwoju zasobów leśnych oraz możliwości użytkowania głównego,
- prezentacja, rozpowszechnianie i udostępnianie informacji o lasach oraz wspieranie badań naukowych,
- propagowanie standardów zbierania i przetwarzania danych o zasobach leśnych i przyrodniczych.

Szerszy kontekst...

Informacja

- Mnogość informacji na różnych poziomach i w różnej skali
 - bazy danych, wyniki badań naukowych, opracowania statystyczne, raporty, ...
- Głód danych, zwłaszcza zweryfikowanych, zintegrowanych i spójnych

Informacja

- Mnogość informacji na różnych poziomach i w różnej skali
 - bazy danych, wyniki badań naukowych, opracowania statystyczne, raporty, ...
- Głód danych, zwłaszcza **zweryfikowanych, zintegrowanych i spójnych**

Integracja informacji

- Lokalne banki danych o lasach i inicjatywy pokrewne
 - krajowe, regionalne, ...
- Międzynarodowe bazy danych o lasach
- Związek między różnymi poziomami informacji

Różne kraje...

WELCOME TO OUR HOMEPAGE



Homepage

[Celebrating the "International Year of the Mountains - 2002 PH"](#)

[click on this link for more information](#)

About FMB

You are Visitor Number:



Mandate and Functions

Protect Our Forest - Our Vision

Major Programs

The Philippine Forestry Sector plays a vital role in the national government's quest to improve the quality of life of the Filipino people. Since forests have multiple functions that positively contribute to the environment and the economy, it is important that their management be guided by policies that reflect the goals and aspirations of our society. This concern is summarized through the following vision:

Services

" A forest that creates wealth for our nation as the cradle of life, nurtured by our people's aspiration for a just, humane and progressive society guided by the ideals of our ancestors and the blessings of God Almighty."

Organizational Structure

GIS Maps

Forestry Statistics

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To realize this vision, the application of the best available technology, where appropriate and where economically viable, shall be encouraged in order to increase production and ensure the efficiency and effectiveness of forest management.



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- [Assam »](#)
- [Manipur »](#)
- [Meghalaya »](#)
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Forest

District-wise Number of Forest Circles, Divisions, Ranges and Beat Offices in Arunachal Pradesh, as on 31-03-2011:

- Name of Forest Circles covering the district
- No of Forest Division
 - Territorial
 - Survey / WP / SF / research & wildlife
- No of ranges
- No of beat offices
 - Accounts beat
 - Non-accounts beat

Classification of Forest Area Management under Reservation, Protection etc. in Arunachal Pradesh, as on 31-03-2011:

- No. of Forest Divisions
- Reserved Forest
- Arunachal Reserved Forest/VRF
- Protected Forest
- Forest Under Wild life Sanctuary
- Forest Under National Park
- Unclassified State Forest

Quantity and value of Major Forest Products in Arunachal Pradesh during 2010-2011:

Area Under Plantation Raised in Arunachal Pradesh during 2010-2011:

District-wise Forest Cover (2011 Assessment):

Forest and Tree Resources in States of Arunachal Pradesh according to India State of Forest Report 2011



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Angola: Government to create forestry databank

JUNE 4TH, 2009 NEWS

Malanje, Angola, 4 June – The Angolan deputy minister for Agriculture for Forest Resources, André Jesus Moda said Tuesday in Malanje that a forestry databank would be set up to make it possible to plan the management of exploration and sustainable use of forest resources.

Angola has forest of approximately 53 million hectares, which accounts for 43.3 percent of its total area, with dense forest that is considered to be productive or economically useful, across and are of 2.4 million hectares.

Jesus Moda announced the decision at the launch of the 2nd training courses for field teams, as part of the national forest inventory programme, which runs until 12 June, aimed at technicians from the Forestry Development Institute (IDF) of the provinces of Malanje, Moxico, Kwanza Norte, Uíge, Bengo, Zaire, Cabinda, Luanda, Lunda Sul and Lunda Norte.



Half of Angola's exports are sent to China

Almost half of Angola's exports are destined for China, whilst sales to other large trading partners, such as the United States and France, continue to lose ground, according to Portuguese bank BPI.

In the first half of last year China accounted for around 35 percent of Angola's exports, but this year that percentage rose to 49 percent, with

Różne organizacje międzynarodowe...



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News

International Conference on Forest Tenure Reform: 21-23 November



9 November 2012

Hangzhou, China: Hosted by China's State Forest Administration, FAO-EU China Forest Tenure Project, Rights and Resources Initiative and Peking University, this conference will review the status of forest tenure reforms in China; share experiences from around the globe on the development and implementation of

forest tenure policies, laws and regulations; and identify key pathways for China's collective forest reforms including cooperative agreements with other countries.

[more]

International Forestry Students Association takes part in World Forest Week



5 November 2012

For the first time, over 20 IFSA students took part in WFW/COFO, held from 24-28 September 2012. IFSA also co-sponsored a jobs fair with FAO on Friday, 28 September, which enabled students to interact with representatives from WWF Italy; Futuragene; Carbon Sink Group; the World Agroforestry Centre; the University

of British Columbia; and FAO. IFSA President, Daniel Schraik, also participated as a panelist during the 'Future Needs of the Forestry Workforce' on Friday, 28 September.

[more]



**State of the World's
Forests 2012**

Publication



Moving Forward

FAO Forestry

Programme 2010-2011



**Future of Russia's
forests**

Video [more]



Wangari Maathai

Award

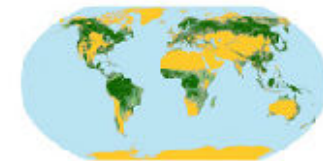
Winner announced

Follow @FAOForestry

Call by skype

Mon-Fri 8:30-17:00 CEST

Global forest map



Global forestry issues

- ▶ Climate change
- ▶ Bioenergy

Core activities

- ▶ Forest management
- ▶ Forest products and services
- ▶ Forest and environment
- ▶ People and forests
- ▶ Policy and governance
- ▶ Assessment and monitoring
- ▶ Interdisciplinary issues



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FAO Forestry statistics

FAO Forestry Department works with statistics in the following areas:

- **Global compilations of comparable statistics**

- annual data on production, import / export and consumption of forest products ([FAOSTAT-Forestry](#) and [FAO Yearbook of Forest Products](#));
- pulp and paper production capacities and recovered paper data [surveys](#); and
- every fifth year report on forest resource statistics ([Forest Resources Assessment](#));

- **Country support**

- [CountrySTAT](#) - a web-based information technology system for food and agriculture statistics at the national and subnational levels;
- collection of forest resource statistics aimed at improving the country capacity for planning and policy development ([National Forest Monitoring and Assessment](#)).

last updated: Wednesday, May 30, 2012



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FRA 2010

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Regional assessments

Thematic studies

FRA Expert Networks

FRA Publications

Support to National
Forest Assessments

Global Forest Resources Assessment

send by email

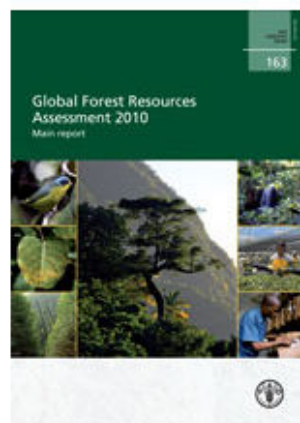
Global Forest Resources Assessments (FRA)



FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946.

The Global Forest Resources Assessments (FRA) are now produced every five years in an attempt to provide a consistent approach to describing the world's forests and how they are changing. The Assessment is based on two primary sources of data: Country Reports prepared by National Correspondents and remote sensing that is conducted by FAO together with national focal points and regional partners. The scope of the FRA has changed regularly since the first assessment published in 1948. These assessments make an interesting history of global forest interests, both in terms of their substantive content, but also in their changing scope.

For more information, explore this Web site to find past assessments, related publications, an online database for the most recent assessment (FRA 2010) , maps, figures along with the FRA Long-Term Strategy (2012-2030) and information related to FRA 2015. If you have any questions or comments, please contact us at: fra@fao.org.



FAO releases Global Forest Resources Assessment 2010 at the start of the latest biennial

last updated: Thursday, October 11, 2012



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FAOSTAT - Forestry

The FAO Statistical Database (FAOSTAT) is an online multilingual database currently containing over one million time-series records from over 240 countries and territories covering statistics on agriculture, nutrition, fisheries, forestry, food aid, land use and population. [FAOSTAT Forestry](#) provides annual production and trade estimates for numerous forest products, primarily wood products such as roundwood, sawnwood, wood panels, pulp and paper. For many forest products, historical data are available from 1961. These estimates are provided by countries through an annual survey conducted by FAO in partnership with the [International Tropical Timber Organization \(ITTO\)](#), the [Statistical Office of the European Union \(Eurostat\)](#) and the [UN Economic Commission for Europe \(UNECE\)](#). In the cases where countries have not provided information through the questionnaire, FAO estimates annual production based on trade journal reports, statistical yearbooks or other sources. Where data are unavailable, FAO repeats historical figures until new information is found.



- [ForesSTAT - forest products production, import and export statistics from 1961 onwards](#)
- [Forestry trade flows - forest products bilateral trade statistics from 1997 onwards](#)

[Forest products definitions](#)

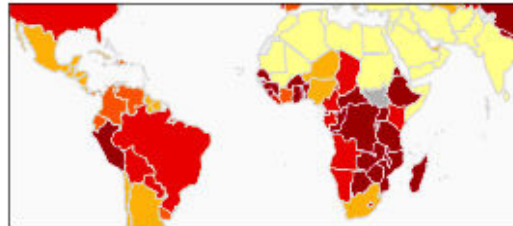
Global production and trade of forest products in 2010

Product	Unit	Production			Exports				
		2010	Change (%) compared to:		2010	Change (%) compared to:			
			2009	2005	2000		2009	2005	2000
Roundwood	million m³	3 401	3%	-5%	-1%	120	18%	-10%	2%
Wood fuel	million m ³	1 867	1%	1%	3%	6	5%	48%	77%
Industrial roundwood	million m ³	1 534	7%	-11%	-5%	114	19%	-12%	-1%
Sawnwood	million m³	390	7%	-11%	1%	114	12%	-18%	0%

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New data resources on poverty, gender, jobs, health and more: a quick guide

Posted on 7 Nov 2012

Discover Open Data specialized dashboards and tools that help investigate and compare indicators, showcase creative visualizations and reveal the stories behind the numbers.

[Read More >>](#)

New website released on Health, Nutrition and Population

Posted on 15 Oct 2012

New site offers data visualization, new database of historical and projected population data and estimates, and social sharing capabilities. [Read More >>](#)

Mobile Apps for Health, Jobs and Poverty Data

Leila Rafei | Posted on 20 Sep 2012

If open data is the key to unlocking knowledge and information, then our free, new mobile apps knock down the door. [Read More >>](#)

Updates

Doing Business

Updated 25 October 2012

Open Government Data Toolkit

Updated 10 July 2012

Open Data Services

8,000+

[Time series indicators in dataBank >>](#)

850+

[Datasets in Finances >>](#)

11,000+

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700+

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Forest area (% of land area)

[DATABANK](#) | [DOWNLOAD DATA](#) | [SHARE](#)

Forest area is land under natural or planted stands of trees of at least 5 meters in situ, whether productive or not, and excludes tree stands in agricultural production systems (for example, in fruit plantations and agroforestry systems) and trees in urban parks and gardens.


Food and Agriculture Organization, electronic files and web site.


Catalog Sources World Development Indicators

[TABLE](#) | [MAP](#) | [GRAPH](#)

Search all indicators

Featured indicators

Climate Change 

Access to electricity (% of population) 

Agricultural irrigated land (% of total agricultural land)

Agricultural land (% of land)

	1980-1981	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2011
Country name	2010						
Afghanistan	2.1						
Albania	28.3						
Algeria	0.6						
American Samoa	90.0						
Andorra	34.0						
Angola	46.9						
Antigua and Barbuda	22.7						

Różne projekty naukowe...



PROJECTS

FOREST RESERVES RESEARCH NETWORK (COSTE4)

Programme

Foresight and Information

Description

The objective of the COST E4 Action is to create a European network of forest reserves in order to collect ongoing research and unify research methodologies and have access to a central databank for the exchange of research results. The output of the COST E4 action will be a publication of country reports with data and definitions on forest protection and a report on research in natural forests and reserves, a review of the models and methods for describing the structure of natural forests and reserves, a review of the models and methods for describing the structure of natural forests and a data bank on forest reserves, organisations, publications, research and the main results with free access for the participants. The databank on the forest reserves and research in these will be based at EFI.

Country reports for the COST Action E4: Forest Reserves Research Network have been published in [EFI Proceedings 16](#)

RESEARCH IN FOREST RESERVES AND NATURAL FORESTS IN EUROPEAN COUNTRIES

Country Reports for the COST Action E4: Forest Reserves Research Network



EFIDAS

EFISCEN

[Forest Products Trade Flow Database](#)

[Mediterranean Forest Database](#)

EFIDAS



EUROPEAN FORESTRY INFORMATION AND DATA ANALYSIS SYSTEM

European Forestry Information and Data Analysis System (EFIDAS) provides comprehensive European forestry information and user-friendly data analysis systems to promote the improved utilisation and analysis of the European forestry statistics for conducting high quality Pan-European forestry research.



TREE SPECIES MAPS FOR EUROPEAN FORESTS

ALTEERRA
WAGENINGEN UR

Tree species maps for European forests

C. J. Nabuurs, D. J. Brus, C. M. Hengeveld, D. J. J. Walvoort, P. W. Goedhart, A. H. Heidema, K. Cunia

In cooperation with EFI, Alterra / Wageningen University and Research Centre has released a **set of 1x1 km tree species maps** showing the distribution of 20 tree species over Europe (Brus et al. 2011).

Basic dendrometric data were gathered for 260,000 national forest inventory plot locations from 17 countries (Nabuurs 2009). In areas with national forest inventory data, area proportions covered by the 20 species were obtained by compositional kriging. For the rest of Europe a multinomial logistic regression model was fitted to ICP-level-I plots using various abiotic factors as predictors (soil, biogeographical zones, bioindicators derived from temperature and precipitation data). The regression results were iteratively scaled to fit NUTS-II forest inventory statistics and the European Forest Map (Tröltzsch et al. 2009, Schuck et al. 2002). The predictions for the twenty tree species were validated using 230 plot data separated from the calibration. For more details please refer to Brus et al. 2011. Figure 1 demonstrates the aggregated results. Underlying GIS data are available for [download from EFI website after short registration](#).



Legend

- 0
- Abies spp
- Larix spp
- Picea spp
- Pinus pinaster
- Pinus sylvestris
- other Pinus
- Pseudotsuga Mensziesii
- other Conifers
- Alnus spp
- Betula spp
- Carpinus spp
- Castanea spp
- Eucalyptus spp
- Fagus spp
- Fraxinus spp
- Populus spp
- Quercus robur / petraea
- other Quercus
- Robinia spp
- other Broadleaved



GO

Select topic

- Forest resources
 - Reports
 - Maps
 - **Databases**
 - Country data
 - National Forest Inventories
 - Protected Forests
 - Species information
 - Genetic resources
- Forest policy and legislation
- Forest ecology and ecosystems
- Climate and CO2
- Forest management and planning
- Forest protection
- Research
- Education
- Forest products
- Marketing and trade
- Information sources
- Miscellaneous

[Expand all](#)

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Databases



EFI

A database is an organised collection of information records that can be accessed electronically. Forest resource information is often published in the form of a database, which is usually searchable by keywords.

52 records found in EUROFOREST Portal

1. [AFOLU DATA](#)
2. [BioDat](#)
3. [Botanical Image Database; Botanische Bilddatenbank](#)
4. [Centre for Ecology and Hydrology](#)
5. [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#)
 - Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction;
 - Convenção sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Silvestr
6. [Cooperation with economies in transition of Central and Eastern Europe in the forestry and forest products sector - Implementation of the Helsinki Resolution H3. H3 database](#)
7. [Corine land cover 2000 \(CLC2000\) seamless vector database](#)
8. [COST Action E27 Photo Gallery Database](#)
9. [Countryside Information System \(CIS\) \[UK\]](#)



GO

Select topic

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- Miscellaneous

[Expand all](#)

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Country data



EFI

Several national and international organisations collect and publish country specific data on the Internet. One type of country data related to forests is the National Forest Inventories, which are described elsewhere in the Forest Portal. FAO and EUROSTAT are major organisations in publishing overviews and statistics about forest resources, utilisation of forests, and the forest products industries. An important source of forest related information for countries is the Forest Resources Assessment (FRA) programme at FAO. FAO also publishes the ForesSTAT and the forestry trade databases (parts of the FAOSTAT database), which contains production and trade statistics.

Another source of country data related to specific aspects of forests and forestry is the publication of periodic country reports to various conventions (e.g. UN Framework Convention on Climate Change, Convention on Biological Diversity).

97 records found in EUROFOREST Portal

1. [Agreste - Ia Statistique Agricole](#)
2. [Basogintza Euskadin](#)
 - Basque Forest Sector; Sector forestal en Euskadi
3. [BioDat](#)
4. [Biodiversidad \[España\]](#)
 - Biodiversity [Spain]
5. [Bundeswaldinventur](#)
 - National forest inventory [Germany]
6. [CEE forestry programme - FAO/government cooperative programme](#)
7. [Coillte - Forest health and vitality](#)

Jednak istotne jest to, że...

- Wiarygodność badań i ich wyników zależy bardzo mocno od jakości i kompletności danych wejściowych
 - do dziś wiele analiz w skali europejskiej posiada duże braki w danych oraz wykorzystuje dane z różnych źródeł, często niekompatybilnych i zdezaktualizowanych

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Bank Danych
o Lasach



„Bank Danych o Lasach - Pełna informacja w zasięgu ręki”



Wykorzystanie BDL

- **Standardowe raporty**
 - odpowiedniki aktualnie wydawanych raportów (lub przynajmniej ich części) on-line

Wykorzystanie BDL

- **Standardowe raporty**
- **Domyślne raporty**
 - pozwalają na dostęp do aktualnych / zaktualizowanych danych bez konieczności wykorzystywania wielu źródeł informacji (raportów, aktualizacji, roczników statystycznych, ...)
 - pozwalają na uzyskanie zestawień niestandardowych na potrzeby konkretnych tematów badawczych
 - pozwalają naukowcom (a nie programistom) na prowadzenie analiz, które do tej pory były zarezerwowane dla „specjalistów”
 - konieczna **dokładna dokumentacja** definicji i algorytmów

Wykorzystanie BDL

- **Standardowe raporty**
- **Domyślne raporty**
- **Możliwość posługiwania się interfejsem graficznym**
 - zarówno do wizualizacji danych, jak i do ich pozyskiwania
 - znaczące ułatwienie analiz dla wielu potencjalnych odbiorców

Założenia BDL

- Uzyskiwanie kompleksowych informacji o lasach na tle uogólnionych informacji z zakresu ochrony przyrody oraz stanu środowiska przyrodniczego dla dowolnego obszaru. Niekonieczne będzie wykonywanie dodatkowych, pracochłonnych ekspertyz.

Założenia BDL

- Uzyskiwanie kompleksowych informacji o lasach na tle uogólnionych informacji z zakresu ochrony przyrody oraz stanu środowiska przyrodniczego **dla dowolnego obszaru**. *Niekonieczne będzie wykonywanie dodatkowych, pracochłonnych ekspertyz.*

Bank Danych o Lasach, 2012. ...

- Cieszewski C.J., Zasada M., Borders B.E., Lowe R.C., Zawadzki J., Clutter M.L., Daniels R.F., 2004. Spatially explicit sustainability analysis of long-term fiber supply in Georgia, USA. *For. Ecol. Manage.* 187(2-3): 345-359
- Cieszewski C.J., Liu S., Lowe R.C., Zasada M. 2010. Spatially Explicit Biomass Supply Sustainability Analysis for Bioenergy Mill Siting in Georgia, USA. *The Open Forest Science Journal*, 3: 46-58.

Wykorzystanie BDL

- **Standardowe raporty**
- **Domyślne raporty**
- **Możliwość posługiwania się interfejsem graficznym**
- **Dostęp do danych źródłowych**
 - do wykonywania bardziej zaawansowanych analiz
 - konieczna szczegółowa dokumentacja danych oraz przemyślana polityka ich udostępniania

„Bank Danych o Lasach - Pełna informacja w zasięgu ręki”





Dziękuję za uwagę