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ASSESSMENT 2010**

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The Forest Resources Assessment Programme

Sustainably managed forests have multiple environmental and socio-economic functions important at the global, national and local scales, and play a vital part in sustainable development. Reliable and up-to-date information on the state of forest resources - not only on area and area change, but also on such variables as growing stock, wood and non-wood products, carbon, protected areas, use of forests for recreation and other services, biological diversity and forests' contribution to national economies - is crucial to support decision-making for policies and programmes in forestry and sustainable development at all levels.

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Forest Resources Assessment Programme. This country report forms part of the Global Forest Resources Assessment 2010 (FRA 2010).

The reporting framework for FRA 2010 is based on the thematic elements of sustainable forest management acknowledged in intergovernmental forest-related fora and includes variables related to the extent, condition, uses and values of forest resources, as well as the policy, legal and institutional framework related to forests. More information on the FRA 2010 process and the results - including all the country reports - is available on the FRA Web site (www.fao.org/forestry/fra).

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The Global Forest Resources Assessment Country Report Series is designed to document and make available the information forming the basis for the FRA reports. The Country Reports have been compiled by officially nominated country correspondents in collaboration with FAO staff. Prior to finalisation, these reports were subject to validation by forestry authorities in the respective countries.

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Report preparation and contact persons

No report has been received from Azerbaijan.

This report is the result of a desk study prepared by the FRA secretariat in Rome, which is based on the existing available information using the established format for FRA 2010 country reports

1 Table T1 – Extent of Forest and Other wooded land

1.1 FRA 2010 Categories and definitions

Category	Definition
Forest	Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds <i>in situ</i> . It does not include land that is predominantly under agricultural or urban land use.
Other wooded land	Land not classified as “Forest”, spanning more than 0.5 hectares; with trees higher than 5 meters and a canopy cover of 5-10 percent, or trees able to reach these thresholds <i>in situ</i> ; or with a combined cover of shrubs, bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use.
Other land	All land that is not classified as “Forest” or “Other wooded land”.
Other land with tree cover (Subordinated to “Other land”)	Land classified as “Other land”, spanning more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity.
Inland water bodies	Inland water bodies generally include major rivers, lakes and water reservoirs.

1.2 National data

1.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Years	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand		(Forest, OWL) Forest, OWL, Other land	1983, 1988	Secondary data source.
FAO, 2001. Global Forest Resources Assessment 2000. FAO Forestry Paper 140.			1990, 2000	Secondary data source.
FAOSTAT data, 2007.		Total area, Land area	2007	
UNECE environmental performance review, Azerbaijan, 2004, Environmental Performance Reviews Series No.19. http://www.countryanalyticwork.net/CAW/Cawdoclib.nsf/0/7E8C14AF9756CDC485256FB00048D69F/\$file/pdf+file+with+maps.pdf		Woodland area	1984, 2001	Secondary data source.
State Land and Cartography Committee of Azerbaijan Republic, The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/010.shtml#s1		Wooded area	1990, 2000, 2004	
UNECE/FAO 2000 enquiry data, Manuscript, July 1999		Land reserved for Forestry, Forest, OWL,	1999	
Salmanov, S. 2005. Azerbaijan Forest Resources Assessment for Sustainable Forest Management. UNECE/FAO Workshop on Capacity Building in Sharing Forest and Market Information. 2005. http://www.unece.org/timber/docs/other_mtgs/2005krtiny/reports/aze_fra_e.pdf		Forest land, Forest		Secondary data source.

The FAO 2001 report mainly used data published by UNECE/ FAO 2000.

1.2.2 Classification and definitions

The classification and definitions used in the UNECE/FAO 2000 report are the same as those being used by FRA.

1.2.3 Original data

The UNECE/FAO 2000 figures of land cover categories are presented in the table below. The State Statistical Committee of Azerbaijan Republic (based on the official statistics of the State Statistical Committee) gives the figure of “wooded area” as 1038 000 ha for the years 1990, 2000 and 2003. In the manuscript attached to UNECE/FAO 2000 inquiry, the “total forest area” was defined to be 1213 700 ha (14 % of the territory), of which the area covered by forest was 989 300 ha. According the National Programme of forest restoration and increase of forest lands in years 2003 – 2008 wood restoration will be carried out on the territory of 69700 ha, which includes wood restoration on the area of 44 700 ha and support of natural regeneration on the area of 25 000 ha. Of the mentioned above 69 700 ha, 14 300 ha are territories beyond the forest fund boundaries (Salmanov, 2005). However, in the UNECE environmental performance review it is stated that by 2001 this “total forest area” percentage had declined, to approximately 11% of the territory, and there is concern that the actual figure could be lower because of deforestation.

The UNECE/FAO 2000 figures will be used for basis of the analysis, since the definition of “wooded area” or “total forest area” in the national documents is not clearly defined..

Category	Area (1000 ha)	
	1983	1988
Forest	870	935.5
Other wooded land	52	54
Sub-total Forest and Other wooded land	922	989.5
Other land	NDA	7352
Sub-total Land area	NDA	8341.5
Inland water	NDA	300
Total area	NDA	8641.5

Source: UNECE/FAO 2000, Reference years: 1983 and 1988

1.3 Analysis and processing of national data

1.3.1 Calibration

The total land area figure reported by UNECE/FAO 2000 is larger than the 2007 FAOSTAT database land area as well as the total area of the country. Hence calibration is applied: The forest and OWL areas are assumed to be correct and the Other land class is adjusted so that the total land area figure will match the FAOSTAT land area (8262.9). Also, for the Inland water area, the FAOSTAT estimate (397.1) is applied. This calibration is applied to the Other land category in the National reporting table.

Calibrated national data

Category	Area (1000 ha)	
	1983	1988
Forest	870	935.5
Other wooded land	52	54
Sub-total Forest and Other wooded land	922	989.5
Other land	NDA	7273.4
Sub-total Land area	NDA	8260
Inland water	NDA	397.1
Total area	NDA	8660

1.3.2 Estimation and forecasting

Taking into account the estimate of deforestation given in the UNECE environmental performance review, there is no basis to use the positive change rate between the 1983 and 1988 figures for forest and OWL for forecasting. A national forecast of forest and other wooded land for 2010 is 1003 800 ha (Salmanov, 2005). However, due to the deforestation figures in the UNECE environmental performance review, the UNECE/FAO 2000 figures for year 1988 will be used as they are for all the reporting years.

1.3.3 Reclassification into FRA 2010 categories

No further reclassification is needed, as the national data are already presented according to the FRA categories.

1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	936	936	936	936
Other wooded land	54	54	54	54
Other land	7 273	7 273	7 273	7 273
...of which with tree cover	n.a.	n.a.	n.a.	n.a.
Inland water bodies	397	397	397	397.1
TOTAL	8 660	8 660	8 660	8 660

1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		<p>FRA 2000 reported an estimated forest area of 1 904 (000) ha for year 2000 based on the 1988 estimate and a positive change rate of 13 (000) ha calculated based on the 1983 and 1988 figures.</p> <p>However, the UNECE Environmental Performance review of 2001 reported a decline in forest area in recent years, without providing more detailed information. For this reason, the 1988 estimates for forest and other wooded land were used for all the reporting years.</p>
Other wooded land		
Other land		
Other land with tree cover		
Inland water bodies		

Other general comments to the table

Expected year for completion of ongoing/planned <u>national forest inventory and/or RS survey / mapping</u>	
Field inventory	
Remote sensing survey / mapping	

2 Table T2 – Forest ownership and management rights

2.1 FRA 2010 Categories and definitions

Category	Definition
Public ownership	Forest owned by the State; or administrative units of the public administration; or by institutions or corporations owned by the public administration.
Private ownership	Forest owned by individuals, families, communities, private co-operatives, corporations and other business entities, private religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.
Individuals (sub-category of Private ownership)	Forest owned by individuals and families.
Private business entities and institutions (sub-category of Private ownership)	Forest owned by private corporations, co-operatives, companies and other business entities, as well as private non-profit organizations such as NGOs, nature conservation associations, and private religious and educational institutions, etc.
Local communities (sub-category of Private ownership)	Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area. The community members are co-owners that share exclusive rights and duties, and benefits contribute to the community development.
Indigenous / tribal communities (sub-category of Private ownership)	Forest owned by communities of indigenous or tribal people.
Other types of ownership	Other kind of ownership arrangements not covered by the categories above. Also includes areas where ownership is unclear or disputed.
Categories related to the holder of management rights of public forest resources	
Public Administration	The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.
Individuals/households	Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.
Private institutions	Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities, private co-operatives, private non-profit institutions and associations, etc., through long-term leases or management agreements.
Communities	Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.
Other form of management rights	Forests for which the transfer of management rights does not belong to any of the categories mentioned above.

2.2 National data

2.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Ownership (forest, OWL)	1988	Secondary data source.
Salmanov, S. 2005. Azerbaijan Forest Resources Assessment for Sustainable Forest Management. UNECE/FAO Workshop on Capacity Building in Sharing Forest and Market Information. 2005. http://www.unece.org/timber/docs/other_mtgs/2005krtiny/reports/aze_fra_e.pdf		Forest land, Forest		Secondary data source.

2.2.2 Classification and definitions

National class	Definition
	The definitions of public and private ownership according to UNECE/FAO 2000 are the same as those being used by FRA 2005.

2.2.3 Original data

Management rights

“The forests of Azerbaijan are state protected. Forest management is carried out on the principles of the Forest Code and the Law on Environmental Protection. In the republic of Azerbaijan use of the forest reserves is realized on the basis of legislatively approved contracts. There are 3 forms of the rent of forest lands: recreation, short term agricultural use and long term rent with an indispensable condition of planting forest saplings on 20 % of the territory rented. It also includes tending the planted trees until they cover the whole territory with wood.” (Salmanov, 2005)

2.3 Analysis and processing of national data

2.3.1 Estimation and forecasting

The ownership percentage for the year 1988 in UNECE/FAO 2000 is applied to all the reporting years.

2.4 Data for Table T2

Table 2a - Forest ownership

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	936	936	936
Private ownership	0	0	0
...of which owned by individuals	n.a.	n.a.	n.a.
...of which owned by private business entities and institutions	n.a.	n.a.	n.a.
...of which owned by local communities	n.a.	n.a.	n.a.
...of which owned by indigenous / tribal communities	n.a.	n.a.	n.a.
Other types of ownership	0	0	0
TOTAL	936	936	936

Note: If other types of ownership is reported, please specify details in comment to the table.

Does ownership of trees coincide with ownership of the land on which they are situated?	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If No above, please describe below how the two differ:		

Table 2b - Holder of management rights of public forests

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public Administration			
Individuals			
Private corporations and institutions			
Communities			
Other			
TOTAL			

2.5 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership		
Private ownership		
Other types of ownership		
Management rights	No data available for reporting on this table.	

Other general comments to the table
<p>As the changes in the economies of countries in transition are going on rapidly, the information in Table T2, which is based on 1988 data, may not accurately reflect the current situation with regard to the ownership of Forest in Azerbaijan.</p>

3 Table T3 – Forest designation and management

3.1 FRA 2010 Categories and definitions

Term	Definition
Primary designated function	The primary function or management objective assigned to a management unit either by legal prescription, documented decision of the landowner/manager, or evidence provided by documented studies of forest management practices and customary use.
Protected areas	Areas especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
Categories of primary designated functions	
Production	Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.
Protection of soil and water	Forest area designated primarily for protection of soil and water.
Conservation of biodiversity	Forest area designated primarily for conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas.
Social services	Forest area designated primarily for social services.
Multiple use	Forest area designated primarily for more than one purpose and where none of these alone is considered as the predominant designated function.
Other	Forest areas designated primarily for a function other than production, protection, conservation, social services or multiple use.
No / unknown	No or unknown designation.
Special designation and management categories	
Area of permanent forest estate (PFE)	Forest area that is designated to be retained as forest and may not be converted to other land use.
Forest area within protected areas	Forest area within formally established protected areas independently of the purpose for which the protected areas were established.
Forest area under sustainable forest management	To be defined and documented by the country.
Forest area with management plan	Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, which is periodically revised.

3.2 National data

3.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Years	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFA 2000)		Areas available for wood supply, Areas not available for wood supply, IUCN protected area categories, soil protection management areas	1988	Secondary data source.

<p>UNECE environmental performance review, Azerbaijan, 2004, Environmental Performance Reviews Series No.19. http://www.countryanalyticwork.net/CAW/Cawdoclib.nsf/0/7E8C14AF9756CDC485256FB00048D69F/\$file/pdf+file+with+maps.pdf</p>		Protected areas	2000, 2003	Secondary data source, contains data from Chemonics International/USAID's Bureau of Europe and NIS, Biodiversity Assessment, 2000. Ministry of Ecology and Natural Resources, 2003.
<p>Ministry of Ecology and Natural Resources of Azerbaijan Republic, WWW-pages, http://eco.gov.az/v2.1/en/forest/, date 18.3.2005.</p>		Soil protection management areas		

3.2.2 Classification and definitions

The original data is assumed to follow the definitions of UNECE/FAO 2000.

3.2.3 Original data

Protected areas

“Protected area categories defined by the Law on Specially Protected Natural Areas and Objects (2000) include those that are international (some natural reserves), national (State reserves and national parks) and local (natural reserves, natural monuments, zoological parks, botanical gardens and dendrological parks, health resorts. Currently, there are 37 protected areas, of which 14 are strict nature reserves, 20 are sanctuaries and 3 are national parks . Strict nature reserves correspond to the first protection category of the World Conservation Union (IUCN). According to the National Report on the Ecological Network (2001), they occupy 192,235 ha (2.2% of the country)... Sanctuaries and other protected categories (including endemic and relict forests) occupy 379,000 ha or 4.3% of Azerbaijan’s territory. They have a weaker conservation status and are managed either by strict nature reserve managers or by the regional authorities. In 2003 the area of strict nature reserves amounted to 206,937 ha, the area of national parks – 84,428 ha, and the area of sanctuaries – 273,860 ha with combined area covering 7% of the country’s territory” (*UNECE environmental performance review, 2004*).

Unfortunately, the report provides no details regarding the extent of forests and other wooded land within each of the above categories.

UNECE/FAO 2000 reports that for 1988 the IUCN categories I and II area was 72 000 ha and III and IV 864 000 ha for forest and 15 000 ha and 39 000 ha for OWL, respectively.

Forest area available for wood supply.

UNECE/FAO 2000 reports that for 1988 151 000 ha out of the total area of forest, 934 000 ha, were available for wood supply and 15 000 ha of OWL of total 54 000 ha was available for wood supply. 63 300 ha of forest was not available for wood supply due to conservation on the protection reasons.

Areas where forest and OWL is managed primarily for soil protection.

Most of the forests of Azerbaijan by being located on steep mountain slopes are very significant in terms of soil reinforcement, water purification and climate betterment (*Ministry of Ecology and Natural Resources of Azerbaijan Republic*). UNECE/FAO (TBFRA 2000) reports that for 1988, areas of forest and OWL managed primarily for soil protection were 889 000 ha and 52 000 ha, correspondingly.

The summary of the information for 1988 is shown below:

TBFRA 2000 class	Area (1000 ha), 1988	
	Forest	OWL
Forest managed primarily for soil protection	889	52
Area available wood supply	151	15
IUCN I & II classes	72	15
IUCN III & IV classes	864	39

3.3 Analysis and processing of national data

3.3.1 Calibration

The calibrated forest areas from National reporting table T1 are used.

3.3.2 Estimation and forecasting

No estimation and forecasting have been done, since there is no reliable basis to do it. The UNECE/FAO (TBFRA 2000) 1988 figures are used for all the reporting years.

3.3.3 Reclassification into FRA 2010 categories

As can be seen from the table in 3.2.3, there is an overlap between the various functions and the total area is much larger than the total forest area in T1. The primary function has been estimated according to priorities presented in the following table.

Forest Designated functions

TBFRA 2000 class	FRA Designated function	Priority in calculation	Area (1000 ha)
Forest managed primarily for soil protection	100% Protection of soil and water	2 nd	864
IUCN I & II classes	100% Conservation of biodiversity	1 st	72
Area available for wood supply	100 % Production	3 rd	0
Other	100% No or unknown function	4 th	0

3.4 Data for Table T3

Table 3a – Primary designated function

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Production	0	0	0	0
Protection of soil and water	864	864	864	864
Conservation of biodiversity	72	72	72	72
Social services	0	0	0	0
Multiple use	0	0	0	0
Other (please specify in comments below the table)	0	0	0	0
No / unknown	0	0	0	0
TOTAL	936	936	936	936

Table 3b – Special designation and management categories

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	n.a.	n.a.	n.a.	n.a.
Forest area within protected areas	n.a.	n.a.	n.a.	n.a.
Forest area under sustainable forest management	n.a.	n.a.	n.a.	n.a.
Forest area with management plan	n.a.	n.a.	n.a.	n.a.

3.5 Comments to Table T3

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Production		
Protection of soil and water		
Conservation of biodiversity		
Social services		
Multiple use		
Other		
No / unknown designation		
Area of permanent forest estate		
Forest area within protected areas		
Forest area under sustainable forest management		
Forest area with management plan		

Other general comments to the table

4 Table T4 – Forest characteristics

4.1 FRA 2010 Categories and definitions

Term / category	Definition
Naturally regenerated forest	Forest predominantly composed of trees established through natural regeneration.
Introduced species	A species, subspecies or lower taxon, occurring <u>outside</u> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans).
Characteristics categories	
Primary forest	Naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Other naturally regenerated forest	Naturally regenerated forest where there are clearly visible indications of human activities.
Other naturally regenerated forest of introduced species (sub-category)	Other naturally regenerated forest where the trees are predominantly of introduced species.
Planted forest	Forest predominantly composed of trees established through planting and/or deliberate seeding.
Planted forest of introduced species (sub-category)	Planted forest, where the planted/seeded trees are predominantly of introduced species.
Special categories	
Rubber plantations	Forest area with rubber tree plantations.
Mangroves	Area of forest and other wooded land with mangrove vegetation.
Bamboo	Area of forest and other wooded land with predominant bamboo vegetation.

4.2 National data

4.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Forest and other wooded land by categories of “naturalness”	1997	Secondary data source.
The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/		Reforestation area	1999-2003	

4.2.2 Classification and definitions

National class	Definition
Undisturbed by man	No human disturbance at all or disturbance so long ago that natural processes have been completely re-established.
Semi-natural forest/other wooded land	Forest / Other wooded land that is neither “Forest / Other wooded land undisturbed by man” nor “Plantation”.
Plantation(s)	Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either: <ul style="list-style-type: none"> • Of introduced species (all planted stands), or • Intensively managed stands of indigenous species which meet all the following criteria: one or two species at plantation, even age class, regular spacing.

4.2.3 Original data

The reforestation by sowing and planting has been on average 2 500 ha/y in Azerbaijan between 1999-2003 (*Reestablishment of forests of state importance, The State Statistical Committee of Azerbaijan Republic*).

“According to the National Programme, in 2003 sapling and seedling planting was realized on the area of 3701 ha, natural regeneration was tended on 5020 ha (total amount of 8721 ha), in 2004 forest works were carried out on the areas of 3705 and 5421 ha respectively, (total amount of 9126 ha), and in spring of 2005 planting works were carried out on the area of 1676 ha. Restored enterprises, occupied in forest regeneration, planted wood on 584 ha of desert lands.” (Allumarov, 2005)

It is probable that the area of plantation forests has increased. However, since it is not known if some of the area was located on old plantations the above figures are not used for reporting.

Category of Forest	1988, Area (1000ha)	1988, %
Forest:	935.5	100.00
Undisturbed by man	400	42.76
Semi-natural	515.5	55.10
Plantations	20	2.14
Other wooded land:	54	100.00
Undisturbed by man	15	27.77
Semi-natural	39	72.33

Source: UNECE/FAO, 2000

4.3 Analysis and processing of national data

4.3.1 Estimation and forecasting

The percentages reported in the UNECE/FAO 2000 have been applied to the estimated forest and OWL area from T1 to obtain the Category areas for 1990, 2000, 2005 and forecasting for 2010.

Category	1990, Area (1000ha)	2000, Area (1000ha)	2005, Area (1000ha)	2010 Area (1000 ha)
Forests				
Undisturbed by man	400	400	400	400
Semi-natural	516	516	516	516
Plantations	20	20	20	20
Other wooded land				
Undisturbed by man	15	15	15	15
Semi-natural	39	39	39	39

4.3.2 Reclassification into FRA 2010 categories

Primary forest has been reclassified as primary forest in accordance with the FRA 2010 definition and plantations has been reclassified as planted forest. The difference between the total forest area, the primary forest and the plantations, gives the area reported by UNECE/FAO 2000 as “semi-natural” forest and this area has been assumed to correspond to the other naturally regenerated forest of FRA 2010. It should be noted that since no information on the regeneration method was available, the previous assumptions may lead to an overestimation of the other naturally regenerated forest, which may include a part of the planted forest.

4.4 Data for Table T4

Table 4a

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	400	400	400	400
Other naturally regenerated forest	516	516	516	516
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
Planted forest	20	20	20	20
...of which of introduced species	n.a.	n.a.	n.a.	n.a.
TOTAL	936	936	936	936

Table 4b

FRA 2010 Categories	Area (1000 hectares)			
	1990	2000	2005	2010
Rubber plantations (Forest)	0	0	0	0
Mangroves (Forest and OWL)	0	0	0	0
Bamboo (Forest and OWL)	0	0	0	0

4.5 Comments to Table T4

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Primary forest		
Other naturally regenerating forest		
Planted forest		
Rubber plantations		
Mangroves		
Bamboo		

Other general comments to the table

5 Table T5 – Forest establishment and reforestation

5.1 FRA 2010 Categories and definitions

Term	Definition
Afforestation	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest.
Reforestation	Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
Natural expansion of forest	Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).

5.2 National data

5.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/		Reforestation area	1999-2003	Secondary data source.
Salmanov, S. 2005. Azerbaijan Forest Resources Assessment for Sustainable Forest Management. UNECE/FAO Workshop on Capacity Building in Sharing Forest and Market Information. 2005. http://www.unece.org/timber/docs/other_mtgs/2005krtiny/reports/aze_fra_e.pdf		sapling and seedling, natural regeneration	2003-2005	Secondary data source.

5.2.2 Original data

	Reestablishment of forests of state importance (1000 ha)							
	2000	2001	2002	2003	2004	2005	2006	2007
Reforestation	5,3	5	7,5	8,7	9,1	9,7	10,1	10,5
of which for:								
sowing and planting of forests	2	2	3,1	3,7	3,7	3,8	3,8	3,9
assistance to the natural renovation of forests	3,3	3	4,4	5	5,4	5,9	6,3	6,6
Share of forest planting and sowing in total area where the reforestation works were carried out in %	37,7	40	41,9	42,5	40,7	39,2	37,6	37,1
Planting the trees in nonarable lands	265	113	132	147	164	65	66	5

The reforestation by sowing and planting has been on average 2 500 ha/y in Azerbaijan between 1999-2003 (*Reestablishment of forests of state importance, The State Statistical Committee of Azerbaijan Republic*). For the years 2003-2007 the average is 3 800 ha/y.

“The National Programme of forest restoration and increase of forest lands has been adopted in the republic of Azerbaijan. According to this decree, in years 2003 – 2008 wood restoration will be carried out on the territory of 69700 ha, which includes wood restoration on the area of 44 700 ha and support of natural regeneration on the area of 25 000 ha. Of the mentioned above 69 700 ha, 14 300 ha are territories beyond the forest fund boundaries: areas along highways and railways, in the valleys of the rivers Kura and Araz, banks of other water bodies, and the coast of the Caspian Sea. These works have been included in the National Programme as they need fortification of sandy lands. According to the National Programme, in 2003 sapling and seedling planting was realized on the area of 3701 ha, natural regeneration was tended on 5020 ha (total amount of 8721 ha), in 2004 forest works were carried out on the areas of 3705 and 5421 ha respectively, (total amount of 9126 ha), and in spring of 2005 planting works were carried out on the area of 1676 ha. Restored enterprises, occupied in forest regeneration, planted wood on 584 ha of desert lands.” (Allumarov, 2005)

Since it is not known the proportion of afforestation and reforestation in the realized sapling and seedling planting these figures are not used for reporting.

5.3 Analysis and processing of national data

5.3.1 Estimation and forecasting

The estimate of reforestation between 1999-2003 is used to report the year 2000 and the average of 2003-2007 of sowing and planting of forests is used to report the year 2005.

5.4 Data for Table T5

FRA 2010 Categories	Annual forest establishment (hectares/year)			...of which of introduced species ¹⁾ (hectares/year)		
	1990	2000	2005	1990	2000	2005
Afforestation	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Reforestation	n.a.	2500	3800	n.a.	n.a.	n.a.
...of which on areas previously planted	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Natural expansion of forest	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages for the periods 1999-2002 and 2003-2007 respectively.

5.5 Comments to Table T5

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Afforestation		
Reforestation		
Natural expansion of forest		

Other general comments to the table

6 Table T6 – Growing stock

6.1 FRA 2010 Categories and definitions

Category	Definition
Growing stock	Volume over bark of all living trees more than X cm in diameter at breast height (or above buttress if these are higher). Includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm.
Growing stock of commercial species	Growing stock (see def. above) of commercial species.

6.2 National data

6.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		growing stock	1983,1988	Secondary data source.
UNECE environmental performance review, Azerbaijan, 2004, Environmental Performance Reviews Series No.19.		Forest area, fellings	2000,2003	Secondary data source.
Ministry of Ecology and Natural Resources of Azerbaijan Republic, WWW-pages, http://eco.gov.az/v2.1/en/forest/ , date 18.3.2005.		Growing stock		Secondary data source.
Salmanov, S. 2005. Azerbaijan Forest Resources Assessment for Sustainable Forest Management. UNECE/FAO Workshop on Capacity Building in Sharing Forest and Market Information. 2005. http://www.unece.org/timber/docs/other_mtgs/2005krtiny/reports/aze_fra_e.pdf		Growing stock, Growing stock by tree species		Secondary data source.

6.2.2 Classification and definitions

National class	Definition
Growing stock	The living tree component of the standing volume
Growing stock on forest available for wood supply	GS on forest where legal, economic or specific environmental restrictions do not have any significant impact on the supply of wood

6.2.3 Original data

Category	1983	1988
Growing stock on Forest (1000 m3)	119 000	127 440
...of which available for wood supply (1000 m3)	NDA	26 000
Growing stock on OWL (1000 m3)	NDA	NDA

Source: UNECE/FAO 2000 (secretariat estimate), reference years 1983, 1988

Distribution of major wood species by wood reserves and areas (Salmanov, 2005):

Wood species	Covered with forest		Total reserves of wood	
	Ths. ha	From the whole area, %	Million m 3	From total reserves %
Coniferous including	13.7	100	0.35	100
Pine	2	14.6	0.1	28.6
Juniper	11.7	85.4	0.25	71.4
Hardleaved Total Including	848.3	100	119.89	100
Oak	323.39	36	30.17	24.4
Beech	326.98	36.4	64.3	52
Larch	229.07	25.5	28.19	22.8
Ashtree	8.08	0.9	0.26	0.2
Birch	2.6	0.3	0.49	0.4
Elm	0.99	0.1	0.03	0
Locust	7.19	0.8	0.3	0.2
Softleaved Total	53.9	100	3.11	100
Birch	2.85	5.3	0.09	3
Poplar	8.53	15.9	0.49	15.5
Alder	17.31	32.8	1.25	40.1
Linden	2.26	4.2	0.18	5.9
Poplar	13.49	25.4	0.85	23.1
Willow	8.82	16.4	0.28	8.9
Other	53.3	6.2	3.77	3.1
Shrubs	20.1	2.2	0.32	0.3
Total	989.3	100	127.44	100

6.3 Analysis and processing of national data

6.3.1 Calibration

No calibration was needed as the UNECE/FAO, 2000 forest and OWL areas were used.

6.3.2 Estimation and forecasting

Quotation: “According to the latest forest inventory of 1984, the total woodland area of Azerbaijan was 1,213,700 ha, or 14% of the territory. By 2001, the percentage had declined, to approximately 11% of the territory, and there is concern that the actual figure could be lower because of deforestation...”.

Quotation: “During the mission, it was reported that the average annual forest cut was about 60,000 m³ for sanitary and maintenance purposes only. However, from 2003 forest cuttings for sanitary purposes have been suspended and only forest residues are collected. It was also roughly estimated that an additional 30,000-40,000 m³ per year is cut illegally.” (UNECE environmental performance review)

Quotation: “Wood capacity in pistachio forests is 59,73 million cubic meters, oak forests is 27,97 million cubic meters and hornbeam forests is 26,22 million cubic meters. The overall wood capacity of mountain forests is 110,92 million cubic meters or 81,4 percent” (Ministry of Ecology and Natural Resources of Azerbaijan Republic).

Based on the UNECE environmental review, it is obvious that the UNECE/FAO 2000 estimates of growing stock for 1983 and 1988 can not be used as basis for forecasting (especially 2000 and 2005), although that according to the Ministry of Ecology and Natural Resources the growing stock would have increased. The UNECE/FAO (TBFRA 2000) 1988 figures are used to report year 1990, 2000, 2005 and 2010. The composition of growing stock is presented in Salmanov (2005). However, the subtotals and the total sum of the column ‘Total reserve wood’ do not match with the sum of the rows and thus, the figures are not used to report the Table T6.

6.4 Data for Table T6

Table 6a – Growing stock

FRA 2010 category	Volume (million cubic meters over bark)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Total growing stock	127	127	127	127	n.a.	n.a.	n.a.	n.a.
... of which coniferous	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
... of which broadleaved	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Growing stock of commercial species	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 6b – Growing stock of the 10 most common species

FRA 2010 category / Species name			Growing stock in forest (million cubic meters)		
Rank	Scientific name	Common name	1990	2000	2005
1 st					
2 nd					
3 rd					
4 th					
5 th					
6 th					
7 th					
8 th					
9 th					
10 th					
Remaining					
TOTAL					

Table 6c – Specification of threshold values

Item	Value	Complementary information
Minimum diameter (cm) at breast height ¹ of trees included in growing stock (X)	n.a.	
Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y)	n.a.	
Minimum diameter (cm) of branches included in growing stock (W)	n.a.	
Volume refers to “above ground” (AG) or “above stump” (AS)		

6.5 Comments to Table T6

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total growing stock		
Growing stock of broadleaved / coniferous		
Growing stock of commercial species		
Growing stock composition		

Other general comments to the table

¹ Diameter at breast height (DBH) refers to diameter over bark measured at a height of 1.30 m above ground level or 30 cm above buttresses if these are higher than 1 m.

7 Table T7 – Biomass stock

7.1 FRA 2010 Categories and definitions

Category	Definition
Above-ground biomass	All living biomass above the soil including stem, stump, branches, bark, seeds, and foliage.
Below-ground biomass	All biomass of live roots. Fine roots of less than 2mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.
Dead wood	All non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.

7.2 National data

7.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Above stump biomass, Biomass of stumps and roots	1988	Secondary data source.

7.2.2 Classification and definitions

The UNECE/FAO 2000 report distinguishes two categories of biomass: Above-stump biomass and Stump and root biomass. There is a small difference in the definitions of the biomass fractions as compared to FRA regarding the stump biomass. In UNECE/FAO 2000 the stump biomass is grouped together with the root biomass, while in FRA the above-ground portion of the stump belongs to Above-ground biomass.

7.2.3 Original data

The 1988 data presented in the following table has been obtained from UNECE/FAO 2000 and the original questionnaire received from Azerbaijan for UNECE/FAO 2000. The original data will then be as follows:

Category	1988, Tg biomass (Oven dry weight)	
	Forest	OWL & trees outside forest
Above stump biomass	98.58	ID
Stump and root biomass	17.25	ID
Proportion of Above stump biomass of total BM	0.8512	ID
Total woody biomass	115.83	ID

Source: UNECE/FAO 2000, reference year 1988.

Note that one Teragram (Tg) is 1×10^{12} g and equals one million metric tonne. The above data only refer to Forest. No information on biomass of dead wood was found.

7.3 Analysis and processing of national data

7.3.1 Calibration

No calibration was needed.

7.3.2 Estimation and forecasting

Based on the same reasoning as for T5, the UNECE/FAO (TBFRA 2000) 1988 figures are used to report years 1990, 2000, 2005 and 2010.

7.4 Data for Table T7

FRA 2010 category	Biomass (million metric tonnes oven-dry weight)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Above-ground biomass	98.58	98.58	98.58	98.58	n.a.	n.a.	n.a.	n.a.
Below-ground biomass	17.25	17.25	17.25	17.25	n.a.	n.a.	n.a.	n.a.
Dead wood	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

7.5 Comments to Table T7

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Above-ground biomass		
Below-ground biomass		
Dead wood		

Other general comments to the table

8 Table T8 – Carbon stock

8.1 FRA 2010 Categories and definitions

Category	Definition
Carbon in above-ground biomass	Carbon in all living biomass above the soil, including stem, stump, branches, bark, seeds, and foliage.
Carbon in below-ground biomass	Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded, because these often cannot be distinguished empirically from soil organic matter or litter.
Carbon in dead wood	Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.
Carbon in litter	Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm), lying dead in various states of decomposition above the mineral or organic soil.
Soil carbon	Organic carbon in mineral and organic soils (including peat) to a specified depth chosen by the country and applied consistently through the time series.

8.2 National data

8.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
National reporting table T7		Woody biomass: above stump, stump and root biomass		

8.2.2 Classification and definitions

National class	Definition
	The UNECE/FAO 2000 reports on two categories: Carbon in above-stump biomass and Carbon in stump and rood biomass. There is a small difference in the definitions of the biomass fractions as compared to FRA, regarding the stump biomass. In UNECE/FAO 2000 the stump biomass is grouped together with the root biomass, while in FRA the above-ground portion of the stump belongs to Above-ground biomass.

8.2.3 Original data

Forest carbon data were estimated using biomass data (as coming from table 6) multiplied by the default conversion factor of 0.47.

8.3 Analysis and processing of national data

8.3.1 Calibration

No calibration was needed.

8.3.2 Estimation and forecasting

See table T7.

8.4 Data for Table T8

FRA 2010 Category	Carbon (Million metric tonnes)							
	Forest				Other wooded land			
	1990	2000	2005	2010	1990	2000	2005	2010
Carbon in above-ground biomass	46.33	46.33	46.33	46.33	n.a.	n.a.	n.a.	n.a.
Carbon in below-ground biomass	8.11	8.11	8.11	8.11	n.a.	n.a.	n.a.	n.a.
Sub-total: Living biomass	54.44	54.44	54.44	54.44	n.a.	n.a.	n.a.	n.a.
Carbon in dead wood	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Carbon in litter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sub-total: Dead wood and litter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Soil carbon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Soil depth (cm) used for soil carbon estimates	
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8.5 Comments to Table T8

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Carbon in above-ground biomass		
Carbon in below-ground biomass		
Carbon in dead wood		
Carbon in litter		
Soil carbon		

Other general comments to the table

9 Table T9 – Forest fires

9.1 FRA 2010 Categories and definitions

Category	Definition
Number of fires	Average number of vegetation fires per year in the country.
Area affected by fire	Average area affected by vegetation fires per year in the country.
Vegetation fire (supplementary term)	Any vegetation fire regardless of ignition source, damage or benefit.
Wildfire	Any unplanned and/or uncontrolled vegetation fire.
Planned fire	A vegetation fire regardless of ignition source that burns according to management objectives and requires limited or no suppression action.

9.2 National data

9.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
UNECE/FAO, 2000. Forest Resources of Europe, CIS, North America, Australia, Japan and New Zealand (TBFRA 2000)		Fire,	1988-1997	Secondary data source. Original questionnaire data (forest fires).
The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/		Forest fires,	1999-2007	

9.2.2 Classification and definitions

The UNECE/FAO 2000 classification is on area of damage to forest and other wooded land and the burnt areas by forest fires. It should be noted that the level of damage qualifying for entry to statistics was not supplied by the countries in most cases in the UNECE/FAO 2000 report.

National class	Definition
Forest Fire	Fire which breaks out and spreads on forest and other wooded land or which breaks out on other land and spreads to forest and other wooded land. <i>Excludes:</i> Prescribed or controlled burning, usually with the purpose of reducing or eliminating the quantity of accumulated fuel on the ground.

9.2.3 Original data

Category	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1988-1992 average
	1000 hectares										
Area of Forest burnt	0	0	0	0.06	0.07	0.012	0.007	0.04	0	0	0.026
Area of Other wooded land burnt	0	0	0	0	0.01	0.018	0	0.01	0	0	0.002
Total area burnt	0	0	0	0.06	0.08	0.03	0.007	0.05	0	0	0.028

Source: UNECE/FAO 2000, original questionnaires received from Azerbaijan.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	1999-2002	2003-2007
Number of forest fires, cases	-	9	4	1	-	11	2	5	8	5	7
Forest area affected by fires, ha	124	264	13.7	15	0	72.5	34.8	14.4	71.5	104.2	38.6
Volume of burnt standing wood, m ³	-	-	-	-	-	105,2	-	-	3,6		

Source: The State Statistical Committee of Azerbaijan Republic.

It is not known if the above figures from *State Statistical Committee of Azerbaijan* include also OWL areas.

9.3 Analysis and processing of national data

9.3.1 Estimation and forecasting

The Disturbance by fire is reported for forest applying the means of 1988-1992, 1999-2002 and 2003-2007 for years 1990, 2000 and 2005, respectively.

9.4 Data for Table T9

Table 9a

FRA 2010 category	Annual average for 5-year period					
	1990		2000		2005	
	1000 hectares	number of fires	1000 hectares	number of fires	1000 hectares	number of fires
Total land area affected by fire	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
... of which on forest	0.026	n.a.	0.104	5	0.039	7
... of which on other wooded land	0.002	n.a.	n.a.	n.a.	n.a.	n.a.
... of which on other land	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table 9b

FRA 2010 category	Proportion of forest area affected by fire (%)		
	1990	2000	2005
Wildfire	n.a.	n.a.	n.a.
Planned fire	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages of annually affected areas for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively

9.5 Comments to Table T9

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Area affected by fire	Figures on forest may also include other wooded land for 2000 and 2005.	
Number of fires		
Wildfire / planned fire		

Other general comments to the table

10 Table T10 – Other disturbances affecting forest health and vitality

10.1 FRA 2010 Categories and definitions

Term	Definition
Disturbance	Damage caused by any factor (biotic or abiotic) that adversely affects the vigour and productivity of the forest and which is not a direct result of human activities.
Invasive species	Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health.
Category	Definition
Disturbance by insects	Disturbance caused by insect pests.
Disturbance by diseases	Disturbance caused by diseases attributable to pathogens, such as bacteria, fungi, phytoplasma or virus.
Disturbance by other biotic agents	Disturbance caused by biotic agents other than insects or diseases, such as wildlife browsing, grazing, physical damage by animals, etc.
Disturbance caused by abiotic factors	Disturbances caused by abiotic factors, such as air pollution, snow, storm, drought, etc.

10.2 National data

10.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/		Areas as sources of diseases and forest pests	1990, 1995, 1999-2007	

10.2.2 Original data

Category	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007
	1000 hectares										
Areas as sources of diseases and forest pests to the end of year	33.2	17.6	27.2	35.8	0.1	2.1	12.0	2.2	42.2	0.002	0.005
of which sources needing control activities	33.1	14.4	16.4	28.6	0.1	2.1	0.0	2.2	42.2	0.002	0.005

Source: The State Statistical Committee of Azerbaijan Republic.

In the UNECE/FAO 2000 original inquiry the area primarily damaged by insects and disease was 115 ha on average for period 1992-1997.

10.3 Analysis and processing of national data

10.3.1 Estimation and forecasting

The figures from the national data source table (*The State Statistical Committee of Azerbaijan Republic*) of areas needing control activities due to pests or diseases are used as significant disturbance estimates. The 1990 figure is used for FRA reporting year 1990 and the yearly averages of 1999-2002 and 2003-2007 are used for the years 2000 and 2005. All damages are assumed to have occurred in forests.

10.3.2 Reclassification into FRA 2010 categories

Reclassification was done as follows:

National Category\FRA category	Fire	Insects	Diseases	Other disturbances
Areas as sources of diseases and forest pests		50 %	50 %	

10.4 Data for Table T10

Table 10a – Disturbances

FRA 2010 category	Affected forest area (1000 hectares)		
	1990	2000	2005
Disturbance by insects	16.6	5.9	4.5
Disturbance by diseases	16.6	5.9	4.5
Disturbance by other biotic agents	n.a.	n.a.	n.a.
Disturbance caused by abiotic factors	n.a.	n.a.	n.a.
Total area affected by disturbances	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages of annually affected areas for the periods 1990, 1999-2002 and 2003-2007 respectively.

Table 10b – Major outbreaks of insects and diseases affecting forest health and vitality

Description / name	Tree species or genera affected (scientific name)	Year(s) of latest outbreak	Area affected (1000 hectares)	If cyclic, approx. cycle (years)

Table 10c – Area of forest affected by woody invasive species

Scientific name of woody invasive species	Forest area affected 2005 (1000 hectares)
Total forest area affected by woody invasive species	

10.5 Comments to Table T10

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Disturbance by insects		
Disturbance by diseases		
Disturbance by other biotic agents		
Disturbance caused by abiotic factors		
Major outbreaks		
Invasive species		

Other general comments to the table

11 Table T11 – Wood removals and value of removals

11.1 FRA 2010 Categories and definitions

Category	Definition
Industrial roundwood removals	The wood removed (volume of roundwood over bark) for production of goods and services other than energy production (woodfuel).
Woodfuel removals	The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.

11.2 National data

11.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FAOSTAT, FAO Statistics Division 2008		Wood production		

11.2.2 Classification and definitions

FAOSTAT uses the same definition of the categories Industrial roundwood and Woodfuel as FRA 2005. It is assumed that the term “Production” used in FAOSTAT can be used as a good estimate of “Removal”, although these terms are not identical. FRA 2005 requests information on wood removal as volume over bark while the FAOSTAT figures refer to volume under bark.

11.2.3 Original data

FAOSTAT provides the following data on wood production for the period 1998 – 2007:

Category	Volume m ³ under bark					Average 1998-2002
	1998	1999	2000	2001	2002	
Industrial roundwood	27000	28500	31790	23100	26400	27358
Woodfuel	34000	28000	24000	24000	26400	27280
Total	61000	56500	55790	47100	52800	54638

Category	Volume m ³ under bark					Average 2003-2007
	2003	2004	2005	2006	2007	
Industrial roundwood	3300	3300	3300	3300	3300	3300
Woodfuel	3200	3200	3200	3200	3200	3200
Total	6500	6500	6500	6500	6500	6500

There was no data for the 1988-1992 period in the FAOSTAT database. The figures are assumed to represent removals from forest.

The State Statistical Committee of Azerbaijan Republic gives the following figures for Felling of forest for protection and sampling sanitary:

Category	Volume 1000 m ³ under bark ¹⁾										
	1990	1995	1999	2000	2001	2002	2003	2004	2005	2006	2007
Volume of cutting trees,	105.5	60.9	63.6	71.4	51.1	57.7	7.2	10,9	18,2	16,8	50,4
of which suitable wood for use	91.2	53.7	56.9	63.8	45.9	52.7	6.4	10,1	16,4	15,2	47

1) under bark, not verified.

However, since the Industrial removals are requested, the FAOSTAT figures were used.

No information has been found to support estimates of the value of wood removal.

11.3 Analysis and processing of national data

11.3.1 Estimation and forecasting

The volume figures from FAOSTAT refer to volume under bark, hence these figures must be converted to over-bark figures applying a bark factor. No national bark factor has been found, hence the global bark factor of 1.15 has been applied. The volume over bark is then as follows:

Category	Average 1998-2002 (m ³ over bark)	Average 2003-2007 (m ³ over bark)
Industrial roundwood	31462	3795
Woodfuel	31372	3680
Total	62834	7475

In the UNECE/FAO 2000 report, the underbark removals was 60 000 m³ for reference period 1988. This is in accordance with the national figures of felling. However, since the Industrial removals are requested, the FAOSTAT database figures will be used. The average values of 1998-2002 were used as estimates for 2000 and the average values of 2003-2007 to estimate 2005.

11.4 Data for Table T11

FRA 2010 Category	Industrial roundwood removals			Woodfuel removals		
	1990	2000	2005	1990	2000	2005
Total volume (1000 m ³ o.b.)	n.a.	31	3.8	n.a.	31	3.7
... of which from forest	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Unit value (local currency / m ³ o.b.)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total value (1000 local currency)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: The figures for the reporting years refer to the averages of annually affected areas for the 5-year periods 1988-1992, 1998-2002 and 2003-2007 respectively.

	1990	2000	2005
Name of local currency			

11.5 Comments to Table T11

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Total volume of industrial roundwood removals		The decrease in the volume of removals of roundwood and woodfuel recorded from 2003, it is due to a logging ban that has been established starting from this reference year.
Total volume of woodfuel removals		
Unit value		
Total value		

Other general comments to the table

12 Table T12 – Non-wood forest products removals and value of removals

Quotation: “Azerbaijan forests are also famous for its non-wood resources. In our forests there 150 species of wild fruit plants relating to 35 taxa. These plants produce thousand tons of wild fruits (walnut, apple, peer, zagal, sour plum, azgil, persimmon, chestnut, hazelnut, blackberries). 30 percent of these fruits are of consumption significance”, *Ministry of Ecology and Natural Resources of Azerbaijan Republic*, (<http://eco.gov.az/v2.1/en/forest/>, date 18.3.2005).

No other information is available on this issue and the table has therefore been left without reporting any quantitative data.

13 Table T13 – Employment

13.1 FRA 2010 Categories and definitions

Category	Definition
Full-time equivalents (FTE)	A measurement equal to one person working full-time during a specified reference period.
Employment	Includes all persons in paid employment or self-employment.
Paid employment	Persons who during a specified reference period performed some work for <u>wage or salary</u> in cash or in kind.
Self-employment	Persons who during a specified reference period performed some work for <u>profit or family gain</u> in cash or in kind (e.g. employers, own-account workers, members of producers' cooperatives, contributing family workers).

13.2 National data

13.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
FAO. 2008. <i>Contribution of the forestry sector to national economies, 1990-2006</i> , by A. Lebedys. Forest Finance Working Paper FSFM/ACC/08. FAO, Rome. http://www.fao.org/docrep/011/k4588e/k4588e00.htm		Employment	1990, 2005	Secondary data source.

13.2.2 Classification and definitions

National class	Definition

Lebedys (2008): ISIC Division 02 (forestry, logging and related service activities).

13.2.3 Original data

Data are taken from from Lebedys (2008). The year 2000 and 2005 figures in Lebedys (2008) are estimated from roundwood production data, by taking employment per cubic metre of roundwood production in the years where data is available and using the production data in the missing years to estimate the likely level of employment.

13.3 Data for Table T13

FRA 2010 Category	Employment (1000 years FTE)		
	1990	2000	2005
Employment in primary production of goods	5	4	2
...of which paid employment	5	4	2
...of which self-employment	n.a.	n.a.	n.a.
Employment in management of protected areas	n.a.	n.a.	n.a.

13.4 Comments to Table T13

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Employment in primary production of goods		
Paid employment / self-employment		
Employment in management of protected areas		

Other general comments to the table

14 Table T14 – Policy and legal framework

14.1 FRA 2010 Categories and definitions

Term	Definition
Forest policy	A set of orientations and principles of actions adopted by public authorities in harmony with national socio-economic and environmental policies in a given country to guide future decisions in relation to the management, use and conservation of forest and tree resources for the benefit of society.
Forest policy statement	A document that describes the objectives, priorities and means for implementation of the forest policy.
National forest programme (nfp)	A generic expression that refers to a wide range of approaches towards forest policy formulation, planning and implementation at national and sub-national levels. The national forest programme provides a framework and guidance for country-driven forest sector development with participation of all stakeholders and in consistence with policies of other sectors and international policies.
Law (Act or Code) on forest	A set of rules enacted by the legislative authority of a country regulating the access, management, conservation and use of forest resources.

14.2 Data for Table T14

Indicate the existence of the following (2008)			
Forest policy statement with national scope	<input type="checkbox"/>	Yes	
	<input checked="" type="checkbox"/>	No	
If Yes above, provide:	Year of endorsement		
	Reference to document		
National forest programme (nfp)	<input type="checkbox"/>	Yes	
	<input checked="" type="checkbox"/>	No	
If Yes above, provide:	Name of nfp in country		
	Starting year		
	Current status	<input type="checkbox"/>	In formulation
		<input type="checkbox"/>	In implementation
		<input type="checkbox"/>	Under revision
<input type="checkbox"/>		Process temporarily suspended	
Reference to document or web site			
Law (Act or Code) on forest with national scope	<input checked="" type="checkbox"/>	Yes, specific forest law exists	
	<input type="checkbox"/>	Yes, but rules on forests are incorporated in other (broader) legislation	
	<input type="checkbox"/>	No, forest issues are not regulated by national legislation	
If Yes above, provide:	Year of enactment	1998	
	Year of latest amendment	na	
	Reference to document	FAOLEX	

In case the responsibility for forest policy- and/or forest law-making is decentralized, please indicate the existence of the following and explain in the comments below the table how the responsibility for forest policy- and law-making is organized in your country.		
Sub-national forest policy statements		Yes
	x	No
If Yes above, indicate the number of regions/states/provinces with forest policy statements		
Sub-national Laws (Acts or Codes) on forest		Yes
	x	No
If Yes above, indicate the number of regions/states/provinces with Laws on forests		

14.3 Comments to Table T14

Variable / category	Comments related to data, definitions, etc.
Forest policy statement with national scope	There is no formal forest policy. However the forest development objectives are integrated into the following programs: - Poverty reduction and State Program on Economic Development for 2004-2008” - National Program on Ecologically Sustainable Socio-Economic Development (2003) - National Program on Reafforestation and foresting in Azerbaijan Republic” – 2003 - State Program for Social-Economic Development in the regions of Azerbaijan Republic” – 2004 - State program on effectively using summer-winter pastures, hayfields and prevention on desertification in Azerbaijan Republic”- 2004 - State Program on use of alternative and reversible energy source in Azerbaijan” - 2004 (FOWECA report – 2005)
National forest programme (nfp)	
Law (Act or Code) on forest with national scope	The forestry Code is available in FAOLEX ; Many ministerial regulations related to forest code have been approved in 1998 and 1999. Forest fires regulations have been approved in 2004. (FOWECA)
Sub-national forest policy statements	
Sub-national Laws (Acts or Codes) on forest	

Other general comments to the table

15 Table T15 – Institutional framework

15.1 FRA 2010 Categories and definitions

Term	Definition
Minister responsible for forest policy-making	Minister holding the main responsibility for forest issues and the formulation of the forest policy.
Head of Forestry	The Head of Forestry is the Government Officer responsible for implementing the mandate of the public administration related to forests.
Level of subordination	Number of administrative levels between the Head of Forestry and the Minister.
University degree	Qualification provided by University after a minimum of 3 years of post secondary education.

15.2 Data for Table T15

Table 15a – Institutions

FRA 2010 Category	2008	
Minister responsible for forest policy formulation : please provide full title	Ministry of Ecology and Natural Resources (MENR)	
Level of subordination of Head of Forestry within the Ministry		1 st level subordination to Minister
		2 nd level subordination to Minister
	x	3 rd level subordination to Minister
		4 th or lower level subordination to Minister
Other public forest agencies at national level	AzerbForest Industrial Association	
Institution(s) responsible for forest law enforcement	Ministry of Ecology and Natural Resources (MENR)	

Table 15b – Human resources

FRA 2010 Category	Human resources within public forest institutions					
	2000		2005		2008	
	Number	%Female	Number	%Female	Number	%Female
Total staff	na	na	2552	na	na	na
...of which with university degree or equivalent	na	na	na	na	na	na

Notes:

1. Includes human resources within public forest institutions at sub-national level
2. Excludes people employed in State-owned enterprises, education and research, as well as temporary / seasonal workers.

15.3 Comments to Table T15

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Minister responsible for forest policy formulation	http://eco.gov.az/en FOWECA report - 2005	
Level of subordination of Head of Forestry within the Ministry	Deputy Minister Division of Ecology and Environmental Protection Department of Forestry	
Other public forest agencies at national level		
Institution(s) responsible for forest law enforcement		
Human resources within public forest institutions	The Forestry Department personnel is 2.552 all over the country (FOWECA – 2005)	

Other general comments to the table

Quotation:

"The structure of Department of Forest Development, which is attached to the Ministry of Ecology and Natural Resources, comprises the following subdivisions: Department of Forestry, Department of land registration and cadastre, Department of Forest saplings and seedgrowing, Department of Forest guarding, and Coordinative Centre. The Department of Forest Development also includes 32 local departments of forest protection and regeneration, 3 forest planting enterprises and 3 forest nurseries. Besides them the Centre of protection against vermin and illnesses, geodesic and forest managing expedition and Research Institute of forestry are also attached to the Department. "

(Salmanov, S. 2005. *Azerbaijan Forest Resources Assessment for Sustainable Forest Management. UNECE/FAO Workshop on Capacity Building in Sharing Forest and Market Information. 2005.*

http://www.unece.org/timber/docs/other_mtgs/2005krtiny/reports/aze_fra_e.pdf

16 Table T16 – Education and research

No data are available for this reporting table.

17 Table T17 – Public revenue collection and expenditure

17.1 FRA 2010 Categories and definitions

Category	Definition
Forest revenue	All government revenue collected from the domestic production and trade of forest products and services. For this purpose, forest products include: roundwood; sawnwood; wood-based panels; pulp and paper; and non-wood forest products. As far as possible, this should include revenue collected by all levels of government (i.e. central, regional/provincial and municipal level), but it should exclude the income of publicly owned business entities.
Public expenditure	All government expenditure on forest related activities (further defined below).
Operational expenditure (sub-category to Public expenditure)	All government expenditure on public institutions solely engaged in the forest sector. Where the forest administration is part of a larger public agency (e.g. department or ministry), this should only include the forest sector component of the agency's total expenditure. As far as possible, this should also include other institutions (e.g. in research, training and marketing) solely engaged in the forest sector, but it should exclude the expenditure of publicly owned business entities.
Transfer payments (sub-category to Public expenditure)	All government expenditure on direct financial incentives paid to non-government and private-sector institutions, enterprises communities or individuals operating in the forest sector to implement forest related activities.
Domestic funding	Public expenditure funded from domestic public financial resources, including: retained forest revenue; forest-related funds; and allocations from the national budget (i.e. from non-forest sector public revenue sources).
External funding	Public expenditure funded from grants and loans from donors, non-governmental organisations, international lending agencies and international organisations, where such funds are channelled through national public institutions.

17.2 National data

17.2.1 Data sources

References to sources of information	Quality (H/M/L)	Variable(s)	Year(s)	Additional comments
The State Statistical Committee of Azerbaijan Republic, http://www.azstat.org/statinfo/environment/en/011.shtml , http://www.azstat.org/statinfo/environment/en/006.shtml		Expenditures for forestry operations,	2000, 2005	

17.2.2 Original data

Expenses for protection of environment (thsd. manat)

	2000	2001	2002	2003	2004	2005	2006	2007
Expenditures for forestry operations	1281.7	1133	1452.5	1895	2834.8	3710.8	4329.1	7275

Source: The State Statistical Committee of Azerbaijan Republic.

National parks and reserves

	2000	2001	2002	2003	2004	2005	2006	2007
Number of national parks	1	1	1	4	6	7	8	8
Their area, thsd. ha	0,07	0,07	0,07	84,5	117	117,8	233,6	233,6
Expenditures for maintenance of national parks, thsd. manat	29,8	36,5	48,1	71,1	134,7	209,8	355,4	605,3
Number of reserves	14	14	14	14	13	13	11	12
Their area, thsd. ha	192,2	192,2	192,2	206,9	200,9	200,9	179,9	179,3
Expenditures for maintenance of reserves, thsd. manat	146,8	205,3	168,3	170,6	212,3	327,5	321,8	522,2

Source: The State Statistical Committee of Azerbaijan Republic.

The above data are found on the State Statistical Committee internet-pages. However, as it is likely that these data do not cover all the Operational expenditure, no figures are reported in T17b.

17.3 Data for Table T17**Table 17a - Forest revenues**

FRA 2010 Categories	Revenues (1000 local currency)	
	2000	2005
Forest revenue		

Table 17b - Public expenditure in forest sector by funding source

FRA 2010 Categories	Domestic funding (1000 local currency)		External funding (1000 local currency)		Total (1000 local currency)	
	2000	2005	2000	2005	2000	2005
Operational expenditure						
Transfer payments						
Total public expenditure						
If transfer payments are made for forest management and conservation, indicate for what specific objective(s) - Please tick all that apply.	<input type="checkbox"/>	Reforestation				
	<input type="checkbox"/>	Afforestation				
	<input type="checkbox"/>	Forest inventory and/or planning				
	<input type="checkbox"/>	Conservation of forest biodiversity				
	<input type="checkbox"/>	Protection of soil and water				
	<input type="checkbox"/>	Forest stand improvement				
	<input type="checkbox"/>	Establishment or maintenance of protected areas				
	<input type="checkbox"/>	Other, specify below				

17.4 Comments to Table T17

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest revenue		
Operational expenditure		
Transfer payments		

Other general comments to the table