



**Forestry Department**

**Food and Agriculture Organization of the United Nations**

**GLOBAL FOREST RESOURCES  
ASSESSMENT 2010**

**COUNTRY REPORT**

**IRAQ**

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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](http://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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### Notes

Information and figures for tables from T5-T17 are not available because of the unstable situation in Iraq.

The information and figures concerning natural forests in Kurdistan states are not available too.

We wish that the FAO assist and put a plan to develop a survey for the forestry sector including both field inventory and remote sensing survey.

## 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)	Year(s)	Additional comments
Sabah Saleim Al-Kawaz.	M	Forest area, ownership and Characteristics	2005	A set of tables prepared for FRA 2005 based on good estimates.
Ministry of forestry. 1999. Country submission to FRA 2000.	M	Forest area	1990	A set of tables prepared for FRA 2000.
Jafar Mohammed Jafar.	M	Forest area, ownership and Characteristics	2008	A set of tables prepared for FRA 2010 based on good estimates.

#### 1.2.2 Original data

##### Reference year 2005.

Area of natural forest: 781 682 ha

Area of other wooded land: 850 686 ha

The 2005 estimates do not include the area of forest and other wooded land in the Sulimania Province. An estimated 70 000 hectares of orchards and date palms (Other land with tree cover) exist.

**Reference year 1990.**

National Classes	Amadiya	Aqra	Chwarta	Dohuk	Halabja	Koisanjak	Qaladiza	Raniya
Closed forests	139.5	64.3	11.6	40	42.8	1.7	4.6	13.6
Open forests	28.6	9.4	14.2	29.5	12.6	2.8	3.3	23.8
Shrubs	29.6	1.6	6.4	0	14.1	0	10.6	51
Forest fallow system	110.1	26.1	117.7	61.9	73.6	21.1	43.1	79.1
<b>TOTAL</b>	<b>307.8</b>	<b>101.4</b>	<b>149.9</b>	<b>131.4</b>	<b>143.1</b>	<b>25.6</b>	<b>61.6</b>	<b>167.5</b>

National Classes	Rawanaduz	Riparin forest of the plains	Shaikhan	Shaqlawa-Arbil	Sinjar	Sulaimaniya	Zakho	Zibar	TOTAL
Closed forests	130.3	0	0.6	10.2	0	14	39.1	39.6	<b>551.9</b>
Open forests	18.4	0	6.7	26.4	10.9	13.7	28.2	8.6	<b>237.1</b>
Shrubs	120.4	4	0	0.3	0	4.4	4.2	12.7	<b>259.3</b>
Forest fallow system	273.8	11	9.6	22.6	0	71.3	36.5	28.5	<b>986</b>
<b>TOTAL</b>	<b>542.9</b>	<b>15</b>	<b>16.9</b>	<b>59.5</b>	<b>10.9</b>	<b>103.4</b>	<b>108</b>	<b>89.4</b>	<b>2,034.30</b>

Source: Ministry of forestry. 1999. Country submission to FRA 2000.

**Forest plantations**

The area of plantations is estimated to be

	Area (000 ha)	
	1990	2000
Protective forest plantation	14.5	15.3

Source: Sabah Saleim Al-Kawaz.

**1.3 Analysis and processing of national data****1.3.1 Reclassification into FRA 2010 categories**

The 1990 estimates gave the following summary results:

Area of natural forest (= open and closed forest) : 789 000 ha

Area of other wooded land (=shrubs) : 259 300 ha.

**1.3.2 Estimation and forecasting**

The area of other wooded land is assumed constant for the reporting period.

Plantation area for 2000 has been used also for 2005 and 2010.

Natural forest area has been estimated to year 2000 with linear interpolation. The 2005 data has been used for 2010.

National classes and FRA classes	Area (1000 hectares)			
	1990	2000	2005	2010
Natural forest	789.0	802.6	809.4	809.4
Forest Plantations	14.5	15.3	15.3	15.3
Total forest area	803.5	817.9	824.7	824.7
Other wooded land	259.3	259.3	259.3	259.3

The area of Other land was calculated as the remaining land area.

### 1.4 Data for Table T1

FRA 2010 categories	Area (1000 hectares)			
	1990	2000	2005	2010
Forest	804	818	825	825
Other wooded land	259	259	259	259
Other land	42 674	42 660	42 653	42 653
...of which with tree cover	70	70	70	70
Inland water bodies	95	95	95	95
<b>TOTAL</b>	<b>43 832</b>	<b>43 832</b>	<b>43 832</b>	<b>43 832</b>

### 1.5 Comments to Table T1

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Forest		
Other wooded land		
Other land		
Other land with tree cover	Date palms, Fruit & olive orchards	
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 ( <i>sub-category of Private ownership</i> )	Forest owned by individuals and families.
Private business entities and institutions ( <i>sub-category of Private ownership</i> )	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 ( <i>sub-category of Private ownership</i> )	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 ( <i>sub-category of Private ownership</i> )	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.
<b>Categories related to the holder of management rights of public forest resources</b>	
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
Jafar Mohammed Jafar.	M	Forest area, ownership and Characteristics	2008	A set of tables prepared for FRA 2010 based on good estimates.

### 2.2.2 Original data

All forests belong to the Government.

## 2.3 Data for Table T2

**Table 2a - Forest ownership**

FRA 2010 Categories	Forest area (1000 hectares)		
	1990	2000	2005
Public ownership	804	818	825
Private ownership	0	0	0
...of which owned by individuals	0	0	0
...of which owned by private business entities and institutions	0	0	0
...of which owned by local communities	0	0	0
...of which owned by indigenous / tribal communities	0	0	0
Other types of ownership	0	0	0
<b>TOTAL</b>	<b>804</b>	<b>818</b>	<b>825</b>

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 checked="" type="checkbox"/>	Yes
	<input type="checkbox"/>	No
If <b>No</b> 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	804	818	825
Individuals	0	0	0
Private corporations and institutions	0	0	0
Communities	0	0	0
Other	0	0	0
<b>TOTAL</b>	<b>804</b>	<b>818</b>	<b>825</b>

## 2.4 Comments to Table T2

Variable / category	Comments related to data, definitions, etc.	Comments on the reported trend
Public ownership	All the natural forests belong to the government, Ministry of fund.	All the artificial forests belong to the government, Ministry of Agriculture.
Private ownership		
Other types of ownership		
Management rights		

Other general comments to the table

### 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.
<b>Categories of primary designated functions</b>	
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.
<b>Special designation and management categories</b>	
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)	Year(s)	Additional comments
Sabah Saleim Al-Kawaz.	M	Forest area, ownership and Characteristics	2005	A set of tables prepared for FRA based on good estimates.
Agricultural governorates	M		1990 and 2000	

### 3.2.2 Original data

No original data are available for this table. Information from Table T1 has been used with the following assumption based on expert estimates:

- 80 percent of all forests are designated for the protection of soil and water and the remaining 20 percent for conservation of biodiversity.

### 3.3 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	643	654	660	660
Conservation of biodiversity	161	164	165	165
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
<b>TOTAL</b>	<b>804</b>	<b>818</b>	<b>825</b>	<b>825</b>

**Table 3b – Special designation and management categories**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Area of permanent forest estate	804	818	825	825
Forest area within protected areas	n. d	n. d	n. d	n. d
Forest area under sustainable forest management	n. d	n. d	n. d	n. d
Forest area with management plan	n. d	n. d	n. d	n. d

### 3.4 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).
<b>Characteristics categories</b>	
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.
<b>Special categories</b>	
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

The following table presented under table T1 was used as input

National classes and FRA classes	Area (1000 hectares)			
	1990	2000	2005	2010
Natural forest	789.0	802.6	809.4	809.4
Plantations	14.5	15.3	15.3	15.3
Total forest area	803.5	817.9	824.7	824.7
Other wooded land	259.3	259.3	259.3	259.3

### 4.3 Analysis and processing of national data

All natural forests are considered as “other naturally regenerated forest”

#### 4.4 Data for Table T4

**Table 4a**

FRA 2010 Categories	Forest area (1000 hectares)			
	1990	2000	2005	2010
Primary forest	0	0	0	0
Other naturally regenerated forest	789	803	810	810
...of which of introduced species	n. d	n. d	n. d	n. d
Planted forest	15	15	15	15
...of which of introduced species	n. d	n. d	n. d	n. d
<b>TOTAL</b>	<b>804</b>	<b>818</b>	<b>825</b>	<b>825</b>

**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