

STATISTICAL DATA REPORT

Introduction

1. Forest extent, characteristics and changes
2. Forest growing stock, biomass and carbon
3. Forest disturbances
4. Emissions and Removals from Forests
5. Timber and Fuelwood supply
6. Forest designation, management and ownerships
7. Forest policy, legislation and SDG
8. Forestry Students and Employees

1. Forest extent, characteristics and changes

1a. Extent of forest and other wooded land

Categories	Forest Cover Area (000 ha)				
	2004	2008	2012	2016	2020
Forest (a)	5116.623	4854.949	4786.347	3955.199	4062.631
Non-forest land (b=c-a)	82793.977	83055.651	83124.253	83955.401	83847.969

Categories	Forest Cover Area (000 ha)				
	2004	2008	2012	2016	2020
Total Land area (c)	87910.6	87910.6	87910.6	87910.6	87910.6

Data Sources

Year 2004	References	FREL (2020), National REDD+ Office
	Methods Used	Pixel based classification of Landsat Imageries
	Additional comments	

1b. Annual forest expansion, deforestation and net change

Categories	Area (000 ha/year)		
	2004 - 2008	2008 - 2012	2016 - 2020
Forest Expansion (a)	0	0	131.4942425
...Afforestation	0	0	29.0592425
...Natural regeneration	0	0	102.435
Deforestation (b)	5.524	17.362	11.0082
Forest area net change (a-b)	-5.524	-17.362	120.4860425

Data Sources

Year 2012 - 2016	References	a. State of Forest (2016), Pakistan Forest Institute, b. FREL (2020), National REDD+ Office
	Methods Used	a. Official Records of Chief Conservator of Forests, b. Time Series Analysis
	Additional comments	
Year 2016 - 2020	References	a. State of Forest (2016), Pakistan Forest Institute, b. FREL (2020), National REDD+ Office
	Methods Used	a. Official Records of Chief Conservator of Forests, b. Time Series Analysis
	Additional comments	

1c. Annual reforestation

Categories	Area (000 ha/year)	
	2004 - 2008	2008 - 2012
Reforestation	0	0

Data Sources

Year 2004 - 2008	References	N/A
	Methods Used	N/A
	Additional comments	Data of annual reforestation was missing for reference years
Year 2008 - 2012	References	N/A

Methods Used	N/A
Additional comments	Data of annual reforestation was missing for reference years

1d. Other land with tree cover

Categories	Area (000 ha)
Fruit Orchards (a)	
Agroforestry (b)	
Trees in urban settings (c)	
Other (specify in comments) (d)	
Total a+b+c+d	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

1e. Degradation

Categories	Area (ha/year)
	2016 - 2020
Degradation	3966.5

Data Sources

Year	References	
	Methods Used	
	Additional comments	

2. Forest growing stock, biomass and carbon

2a. Growing stock

Categories	Growing stock m ³ /ha (over bark)
	2017
Natural Forests	59.9

Categories	Growing stock m ³ /ha (over bark)
	2017
Irrigated Plantations / Man-made forest	16.39
Other land with tree cover (1f)	0

Categories	Growing stock million m ³ (over bark)
	2017
Natural Forests	215.4
Irrigated Plantations / Man-made forest	4.16
Other land with tree cover (1f)	0

Data Sources

Year	References	
	Methods Used	
	Additional comments	

2b. Growing stock composition by Tree

Categories	Scientific name	Common name	Growing stock in forest (million m ³ over bark)

Natural Forests			
#1 Ranked in terms of volume	Pinus roxburghii Sargent	Chandan	
#2 Ranked in terms of volume	Prunus fasciculata	Ber	
#3 Ranked in terms of volume	0	0	
#4 Ranked in terms of volume	0	0	
#5 Ranked in terms of volume	0	0	
Total volume of native tree species			N.A
Irrigated Plantations / Man-made forest			
#1 Ranked in terms of volume	0	0	
#2 Ranked in terms of volume	0	0	
#3 Ranked in terms of volume	0	0	
#4 Ranked in terms of volume	0	0	
#5 Ranked in terms of volume	0	0	
Total volume of introduced tree species			N.A
Other Land with Tree Cover			
#1 Ranked in terms of volume	0	0	
#2 Ranked in terms of volume	0	0	
#3 Ranked in terms of volume	0	0	

Natural Forests	
Total volume of introduced tree species	N.A

Data Sources

Year	References	
	Methods Used	
	Additional comments	

2c. Biomass stock

Categories	Natural Forest Biomass (tonnes/ha)
Above-ground biomass	
Below-ground biomass	
Carbon in dead wood	
Soil Carbon	
Litter	
Total	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

2d. Carbon stock

Categories	Forest Carbon (tonnes/ha)
	2017
Carbon in above-ground biomass	47.7
Carbon in below-ground biomass	14.5
Carbon in dead wood	0
Soil Carbon	0
Litter	0
Total	62.2

Data Sources

Year	References	
	Methods Used	
	Additional comments	

2e. Forest Volume

Categories	Volume (cu ft.)
Above-ground Volume	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

3. Forest designation, management and ownerships

3a. Forest area with management plans

Categories	Area (000 ha)
	2020
Forest area within protected areas	0
Forest area with long-term forest management plan	2264
...of which in protected areas	2264

Data Sources

Year 2020	References	State of Forest (2016), Pakistan Forest Institute
	Methods Used	Official Records of Chief Conservator of Forests
	Additional comments	Data of Forest are within Protected Area is missing for reference years

3b. Forest ownership and management rights

Categories	Forest area (000 ha)
	2016
A. Government Owned	3508
State	706
Demarcated	0
Undemarcated	0
Reserved	822
Protected	1600
Unclassed	231
Resumed	149
B. Private / Community	2423
Guzara	347
Communal	329
Section 38	22
Section 14b	0
Chos Act	3

Categories	Forest area (000 ha)
	2016
Misc	1722
C. Private / Individual	0
Misc	0
Total A + B + C	5931

Data Sources

Year 2016	References	State of Forestry in Pakistan (2016), Pakistan Forest Institute Peshawar
	Methods Used	Official Records of Chief Conservator of Forests
	Additional comments	Data on records of Private Forests is missing

4. Forest disturbances

4a. Disturbances

Categories	Area (000 ha)
Forest Fire (a)	

Categories	Area (000 ha)
Insects (b)	
Diseases (c)	
Natural disasters (d)	
Other (specify in comments) (e)	
Total (a+b+c+d+e)	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

4b. Degraded forests

Categories	Area (000 ha/year)
Forest Degradation	
..10-30% Canopy Cover	
..31-50% Canopy Cover	
..51-70% Canopy Cover	
..>70% Canopy Cover	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

5. Emissions and Removals from Forests

5a. Emissions

Categories	Average Annual Emissions (tco2e/year)		
	2004 - 2008	2008 - 2012	2016 - 2020
Deforestation	579998	1313307	3775
Forest Degradation	0	0	16250
Disturbances	0	0	0
Total A+ B + C	579998	1313307	20025

Data Sources

Year 2004 - 2008	References	FREL (2020), National REDD+ Office
	Methods Used	Pixel based classification of Landsat Imageries

Additional comments	Data of Removals was not calculated for reference years	
Year 2008 - 2012	References	FREL (2020), National REDD+ Office
	Methods Used	Pixel based classification of Landsat Imageries
	Additional comments	Data of Removals was not calculated for reference years

5b. Removals

Categories	Average Annual Removals (tco2e/year)		
	2004 - 2008	2008 - 2012	2016 - 2020
Enhancement	0	0	18275
SFM	0	0	0
Conservation	0	0	0
Total A+ B + C	0	0	18275

Data Sources

Year 2004 - 2008	References	N/A
	Methods Used	N/A
	Additional comments	Data of Removals was not calculated for reference years
Year 2008 - 2012	References	N/A
	Methods Used	N/A

Additional comments	Data of Removals was not calculated for reference years
----------------------------	---

5c. Net Emissions/Removals

Categories	Net average annual emissions /removals (tco2e/year)		
	2004 - 2008	2008 - 2012	2016 - 2020
A. Total Emissions	579998	1313307	12787435.5
B. Total Removals	0	0	8074282.5
Net A-B	579998	1313307	4713153

6. Timber Fuelwood Consumption

6a. Timber and Fuelwood Consumption

Categories	Million (m3)	
	2004	2020
Share of State Forests	6.225	6.225

Categories	Million (m3)	
	2004	2020
...Industrial Wood Timber	0.289	0.289
...Fuel Wood (domestic + commercial + industrial)	5.936	5.936
Share of Farmlands		
...Industrial Wood Timber	14.34	14.34
...Fuel Wood (domestic + commercial + industrial)	31.08	31.08
Imports		
...Industrial Wood Timber	0	0
...Fuel Wood (domestic + commercial + industrial)	0	0
Total A+B+C	51.645	51.645

Data Sources

Year	References	
	Methods Used	
	Additional comments	

6b. Forest products and value

Year	Name of Non Woody Forest Product	Key species	Quantity	Unit	Rate	Total Value (PKR)
	All other plant products					
	All other animal products					
	Total					

Data Sources

Year	References	
	Methods Used	
	Additional comments	

7. Forest policy, legislation and SDG

7a. Sustainable Development Goal 15

SDG Indicator 15.1.1 Forest area as proportion of total land area

Indicator	Percent		
	2012	2016	2020
Forest area as proportion of total land area	5.45	4.552	4.676
Per Capita Forest	0.022	0.019	0.019

SDG Indicator 15.2.1 Progress towards sustainable forest management

Sub-Indicator 1	Percent
-----------------	---------

Forest area annual net change rate	

Sub-Indicator 2	Forest biomass (tonnes/ha)
Above-ground biomass stock in forest	

Sub-Indicator 3	Percent (forest area baseline)
Proportion of forest area located within legally established protected areas	

Sub-Indicator 4	Percent (forest area baseline)
	2012
Proportion of forest area under long-term forest management plan	50.23

Sub-Indicator 5	Forest area (000 ha)
Forest area under independently verified forest management certification schemes	

Data Sources

Year	References	
	Methods Used	
	Additional comments	

8. Forestry Students and Employees

8a. Employment in forestry and logging

Categories	Number		
	Total	Female	Male
	A. Permanent employees of forestry department		
B. Employment in forest operations			
...Nursery raising			
...afforestation / reforestation			
...protection (negehban)			
...Timber Harvesting			
...Fuelwood collection			
...NTFP collection (medicinal plants, honey etc.)			
C. Total (A + B)			

Data Sources

Year	References	
	Methods Used	
	Additional comments	

8b. Graduation of students in forest-related education

Categories	Number		
	Total	Female	Male
Doctoral degree			
Master's degree			
Bachelor's degree			
Technician certificate / diploma			
Total			

Data Sources

Year	References	
	Methods Used	
	Additional comments	