



## Desk Study

# San Marino

Rome, 2020



FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946. The Global Forest Resources Assessments (FRA) are now produced every five years in an attempt to provide a consistent approach to describing the world's forests and how they are changing. The FRA is a country-driven process and the assessments are based on reports prepared by officially nominated National Correspondents. If a report is not available, the FRA Secretariat prepares a desk study using earlier reports, existing information and/or remote sensing based analysis.

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# Introduction

## Introductory text

**No official report has been received from San Marino. This report is the result of a desk study prepared by the UNECE/FAO Forestry and Timber Section, which is based on the existing available information.**

The Republic of San Marino, in southern Europe, is a landlocked enclave in central Italy. The terrain of San Marino is dominated by the Apennines. Several rivers flow through it, the largest being the Ausa, the Marano and the San Marino.

San Marino has a Mediterranean climate, with mild to cool winters and warm, sunny summers.

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

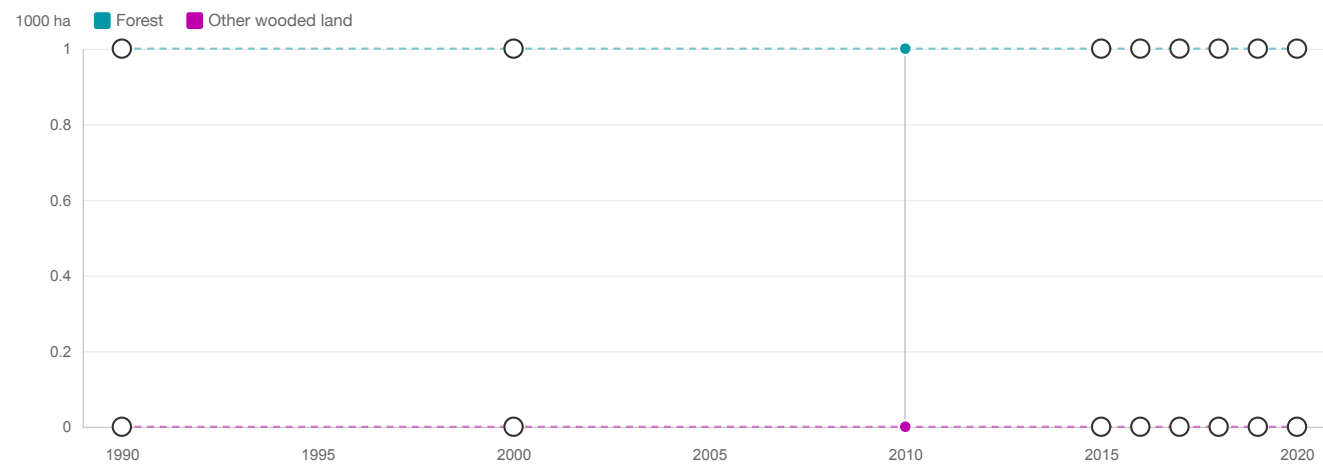
2010	References	http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/san_marino/300702532a_com_naz_ita.pdf
	Methods used	Other (specify in comments)
	Additional comments	Report of San Marino to UNFCCC

Classifications and definitions

2010	National class	Definition
	Forest and woodlands	Not available

Original data and reclassification

2010	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Forest and woodlands	1.00	100.00 %	0.00 %	0.00 %
	Total	1.00	1.00	0.00	0.00



FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Other wooded land (a)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other land (c-a-b)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Total land area (c)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00

The FAOSTAT land area figure for the year 2015 is used for all reference years

Climatic domain	% of forest area 2015	Override value
Boreal	0.00	
Temperate	0.00	
Sub-tropical	100.00	
Tropical	0.00	

Comments

# 1b Forest characteristics

## National Data

### Data sources + type of data source eg NFI, etc

[http://www.nationalplanningcycles.org/sites/default/files/planning\\_cycle\\_repository/san\\_marino/300702532a\\_com\\_naz\\_ita.pdf](http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/san_marino/300702532a_com_naz_ita.pdf)

### National classification and definitions

n/a

### Original data

n/a

## Analysis and processing of national data

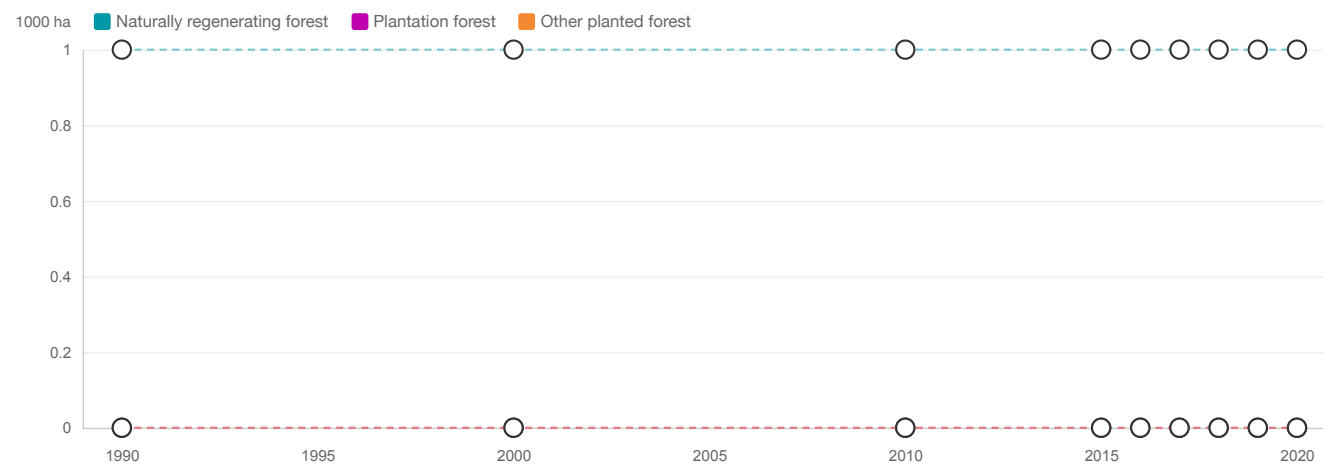
### Estimation and forecasting

No change estimate, assumed to be constant

### Reclassification into FRA 2020 categories

All forest area is assumed to be naturally regenerating





FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Planted forest (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plantation forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which introduced species	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (a+b)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total forest area	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Comments

# 1c Primary forest and special forest categories

## National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

## Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Primary forest	0.00	0.00	0.00	0.00	0.00
Temporarily unstocked and/or recently regenerated					
Bamboos					
Mangroves	0.00	0.00	0.00	0.00	0.00
Rubber wood	0.00	0.00	0.00	0.00	0.00

Comments

1d Annual forest expansion, deforestation and net change

National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Forest expansion (a)	0.00	0.00	0.00	0.00
...of which afforestation	0.00	0.00	0.00	0.00
...of which natural expansion	0.00	0.00	0.00	0.00
Deforestation (b)	0.00	0.00	0.00	0.00
Forest area net change (a-b)	0.00	0.00	0.00	0.00

Comments

# 1e Annual reforestation

## National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

## Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Reforestation	0.00	0.00	0.00	0.00

Comments



1f Other land with tree cover

National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Palms (a)	0.00	0.00	0.00	0.00	0.00
Tree orchards (b)					
Agroforestry (c)					
Trees in urban settings (d)					
Other (specify in comments) (e)					
Total (a+b+c+d+e)	0.00	0.00	0.00	0.00	0.00
Other land area	5.00	5.00	5.00	5.00	5.00

Comments

## 2 Forest growing stock, biomass and carbon

### 2a Growing stock

#### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a

#### Analysis and processing of national data

**Estimation and forecasting**

n/a

**Reclassification into FRA 2020 categories**

n/a

FRA categories	Growing stock m³/ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	109.70	126.80	142.90	150.40	150.40	150.40	150.40	150.40	150.40
Planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which plantation forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	109.70	126.80	142.90	150.40	150.40	150.40	150.40	150.40	150.40
Other wooded land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FRA categories	Total growing stock (million m³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	0.11	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15
Planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which plantation forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forest	0.11	0.13	0.14	0.15	0.15	0.15	0.15	0.15	0.15
Other wooded land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Comments

Based on an expert estimate it is assumed that the GS per ha for San Marino is the same as the average GS per ha for Italy.

## 2b Growing stock composition

### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

### Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#1 Ranked in terms of volume							
#2 Ranked in terms of volume							
#3 Ranked in terms of volume							
#4 Ranked in terms of volume							
#5 Ranked in terms of volume							
#6 Ranked in terms of volume							
#7 Ranked in terms of volume							
#8 Ranked in terms of volume							
#9 Ranked in terms of volume							
#10 Ranked in terms of volume							
Remaining native tree species							
Total volume of native tree species			–	–	–	–	–
Introduced tree species							
#1 Ranked in terms of volume							
#2 Ranked in terms of volume							
#3 Ranked in terms of volume							
#4 Ranked in terms of volume							
#5 Ranked in terms of volume							
Remaining introduced tree species							
Total volume of introduced tree species			–	–	–	–	–
Total growing stock			–	–	–	–	–

Comments

## 2c Biomass stock

### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

### Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	66.37	76.71	86.45	90.99	90.99	90.99	90.99	90.99	90.99
Below-ground biomass	18.92	21.86	24.64	25.93	25.93	25.93	25.93	25.93	25.93
Dead wood									

Comments



## 2d Carbon stock

### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a

### Analysis and processing of national data

**Estimation and forecasting**

n/a

**Reclassification into FRA 2020 categories**

n/a

FRA categories	Forest carbon (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Carbon in above-ground biomass	31.19	36.06	40.63	42.77	42.77	42.77	42.77	42.77	42.77
Carbon in below-ground biomass	8.89	10.28	11.58	12.19	12.19	12.19	12.19	12.19	12.19
Carbon in dead wood									
Carbon in litter									
Soil carbon									

Soil depth (cm) used for soil carbon estimates	
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Comments

### 3 Forest designation and management

#### 3a Designated management objective

##### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a

##### Analysis and processing of national data

**Estimation and forecasting**

n/a

**Reclassification into FRA 2020 categories**

n/a

Primary designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production (a)					
Protection of soil and water (b)					
Conservation of biodiversity (c)					
Social Services (d)					
Multiple use (e)					
Other (specify in comments) (f)					
None/unknown (g)	1.00	1.00	1.00	1.00	1.00
Total forest area	1.00	1.00	1.00	1.00	1.00

Total area with designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production					
Protection of soil and water					
Conservation of biodiversity					
Social Services					
Other (specify in comments)					

Comments

Designation is unknown

### 3b Forest area within protected areas and forest area with long-term management plans

#### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

#### Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest area within protected areas									
Forest area with long-term forest management plan									
...of which in protected areas									

Comments

## 4 Forest ownership and management rights

### 4a Forest ownership

#### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a

#### Analysis and processing of national data

**Estimation and forecasting**

n/a

**Reclassification into FRA 2020 categories**

n/a

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Private ownership (a)				
...of which owned by individuals				
...of which owned by private business entities and institutions				
...of which owned by local, tribal and indigenous communities				
Public ownership (b)				
Unknown/other (specify in comments) (c)	–	–	–	–
Total forest area	1.00	1.00	1.00	1.00

Comments



## 4b Holder of management rights of public forests

### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

### Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Public Administration (a)				
Individuals (b)				
Private business entities and institutions (c)				
Local, tribal and indigenous communities (d)				
Unknown/other (specify in comments) (e)	–	–	–	–
Total public ownership	–	–	–	–

Comments

## 5 Forest disturbances

### 5a Disturbances

#### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a

#### Analysis and processing of national data

**Estimation and forecasting**

n/a

**Reclassification into FRA 2020 categories**

n/a

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Insects (a)																		
Diseases (b)																		
Severe weather events (c)																		
Other (specify in comments) (d)																		
Total (a+b+c+d)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total forest area	1.00	-	-	-	-	-	-	-	-	-	1.00	-	-	-	-	1.00	1.00	1.00

Comments

5b Area affected by fire

National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

Analysis and processing of national data

Estimation and forecasting

n/a

Reclassification into FRA 2020 categories

n/a

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total land area affected by fire																		
...of which on forest																		

Comments

5c Degraded forest

Does your country monitor area of degraded forest		No
If "yes"	What is the national definition of "Degraded forest"?	
	Describe the monitoring process and results	

Comments

## 6 Forest policy and legislation

### 6a Policies, Legislation and national platform for stakeholder participation in forest policy

#### National Data

**Data sources + type of data source eg NFI, etc**

n/a

**National classification and definitions**

n/a

**Original data**

n/a



Indicate the existence of	Boolean (Yes/No)	
	National	Sub-national
Policies supporting SFM		
Legislations and regulations supporting SFM		
Platform that promotes or allows for stakeholder participation in forest policy development		
Traceability system(s) for wood products		

Comments

6b Area of permanent forest estate

National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

FRA 2020 categories	Forest area (1000 ha)					
	Applicable?	1990	2000	2010	2015	2020
Area of permanent forest estate						

Comments

7 Employment, education and NWFP

7a Employment in forestry and logging

National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

FRA 2020 categories	Full-time equivalents (1000 FTE)											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Employment in forestry and logging												
...of which silviculture and other forestry activities												
...of which logging												
...of which gathering of non wood forest products												
...of which support services to forestry												

Comments

## 7b Graduation of students in forest-related education

### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a

FRA 2020 categories	Number of graduated students											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Doctoral degree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Master's degree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bachelor's degree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Technician certificate / diploma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Comments

## 7c Non wood forest products removals and value 2015

### National Data

Data sources + type of data source eg NFI, etc

n/a

National classification and definitions

n/a

Original data

n/a



	Name of NWFP product	Key species	Quantity	Unit	Value (1000 local currency)	NWFP category
#1						
#2						
#3						
#4						
#5						
#6						
#7						
#8						
#9						
#10						
All other plant products						
All other animal products						
Total					-	

Name of currency	Euro
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Comments

8 Sustainable Development Goal 15

8a Sustainable Development Goal 15

SDG Indicator 15.1.1 Forest area as proportion of total land area 2015

Indicator	Percent							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area as proportion of total land area 2015	16.67	16.67	16.67	16.67	16.67	16.67	16.67	16.67

Name of agency responsible	
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SDG Indicator 15.2.1 Progress towards sustainable forest management

Sub-Indicator 1	Percent						
	2000-2010	2010-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Forest area annual net change rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Name of agency responsible	
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Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	76.71	86.45	90.99	90.99	90.99	90.99	90.99	90.99

Name of agency responsible	
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Sub-Indicator 3	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area located within legally established protected areas	–	–	–	–	–	–	–	–

Name of agency responsible	
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Sub-Indicator 4	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area under long-term forest management plan	–	–	–	–	–	–	–	–

Name of agency responsible	
----------------------------	--

Sub-Indicator 5	Forest area (1000 ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area under independently verified forest management certification schemes	0.00	0.00	0.00	0.00	0.00	0.00	–	–