

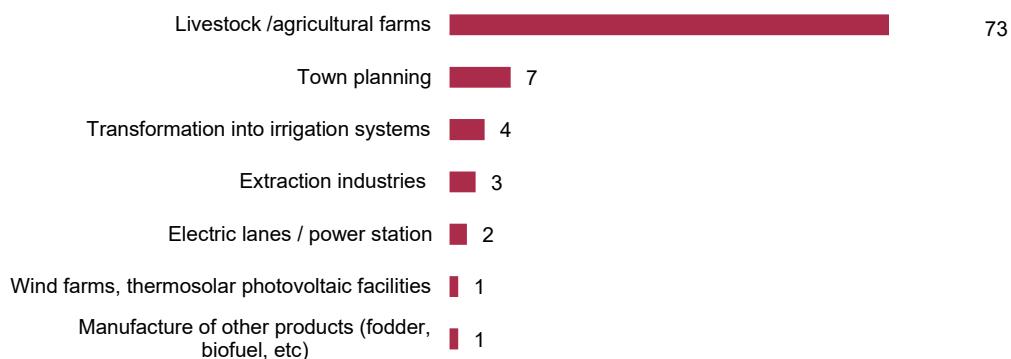
**ENVIRONMENT**

## ENVIRONMENT

### Environmental protection

Environmental impact declarations\* made by *Instituto Aragonés de Gestión Ambiental*, by activity. Aragon, 2017.

Unit: number.

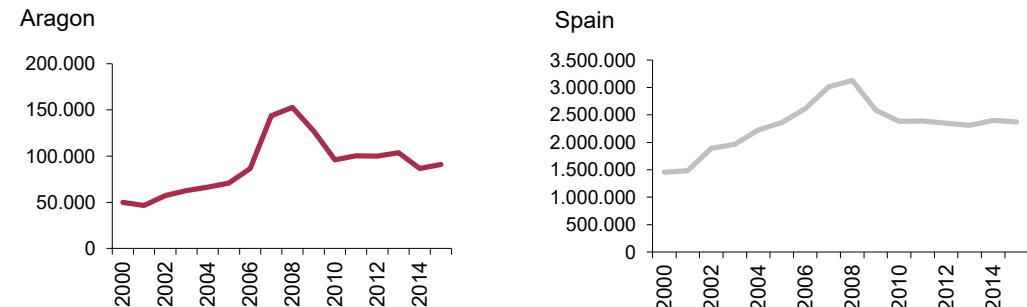


\* Only new declarations are considered.

Source: Instituto Aragonés de Estadística.

### Evolution of environmental protection expense\* in industry.

Unit: 1,000 EUR.



\* Expense (investment and current expense) in the extraction, manufacture and electrical energy production and supply industries.

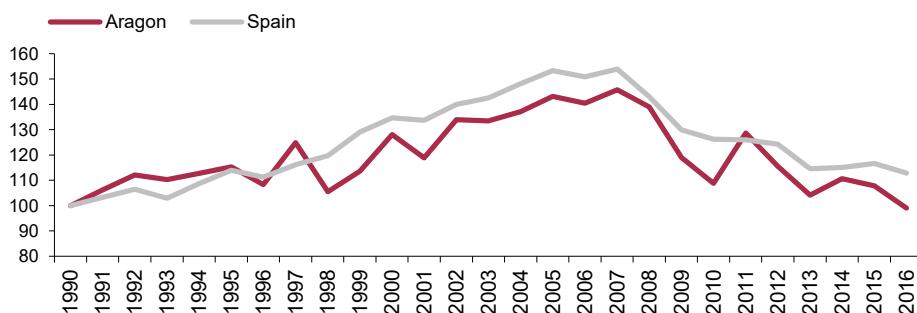
Source: Instituto Nacional de Estadística.

## ENVIRONMENT

### Greenhouse gas emissions

Total greenhouse gas emissions.

Unit: index 1990 = 100.



The six greenhouse gases are: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC<sub>S</sub>, PFC<sub>S</sub>, SF<sub>6</sub>.

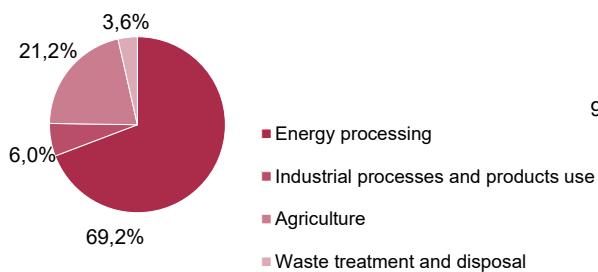
Source: Instituto Aragonés de Estadística, with data from Inventario Nacional de Emisiones a la Atmósfera. Ministerio de Agricultura, Alimentación y Medio Ambiente.

### Greenhouse gas emissions by activity.

Unit: percentage.

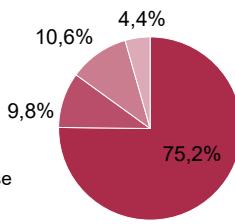
Aragon, 2016.

15,009 kilotonnes of CO<sub>2</sub> equivalent



Spain, 2016.

324,707 kilotonnes of CO<sub>2</sub> equivalent



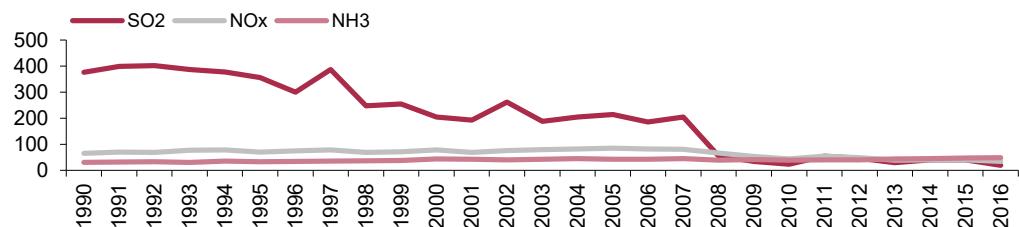
Source: Instituto Aragonés de Estadística, with data from Inventario Nacional de Emisiones a la Atmósfera. Ministerio de Agricultura, Alimentación y Medio Ambiente.

## ENVIRONMENT

### Emission of air pollutants

Emission of acidificants. Aragon.

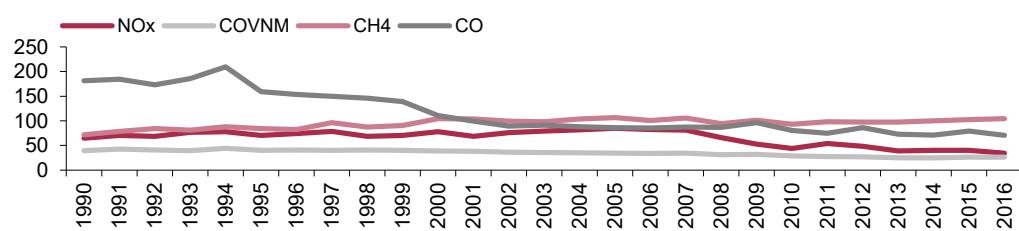
Unit: Kilotonnes.



Source: Instituto Aragonés de Estadística, with data from Inventario Nacional de Emisiones a la Atmósfera. Ministerio de Agricultura, Alimentación y Medio Ambiente.

Emission of tropospheric ozone precursors. Aragon.

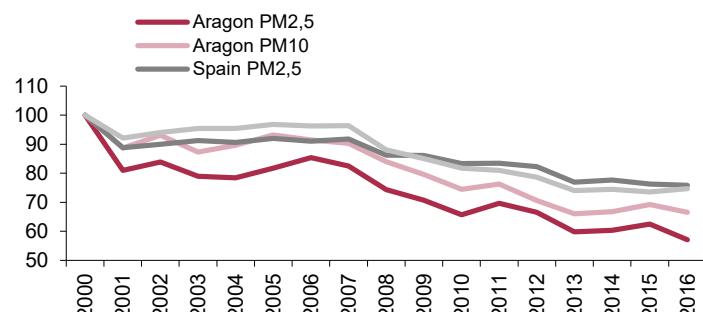
Unit: Kilotonnes.



Source: Instituto Aragonés de Estadística, with data from Inventario Nacional de Emisiones a la Atmósfera. Ministerio de Agricultura, Alimentación y Medio Ambiente.

Emission of particulates.

Unit: index 2000 = 100.



Source: Instituto Aragonés de Estadística, with data from Inventario Nacional de Emisiones a la Atmósfera. Ministerio de Agricultura, Alimentación y Medio Ambiente.

Particulates whose diameter is lower than 10 micra (PM 10), and specially those lower than 2,5 (PM 2,5), are associated to respiratory diseases.

They come from the Diesel vehicles emission and other sources, even natural ones. There are regulations to control their emission and to improve the air quality.

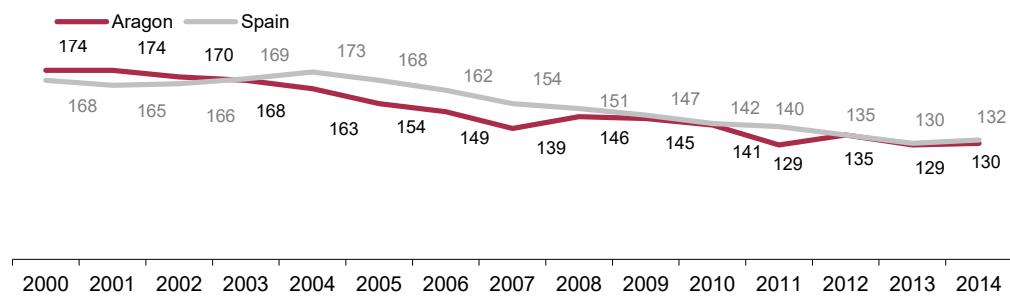
**ENVIRONMENT****Urban water supply****Urban water supply main indicators.**

	Aragon	Spain		
	2014	% Annual variation	2014	% Annual variation
Volume of available water for urban supply (hm <sup>3</sup> )	97	1,7	3.214	0,1
To economic sectors	25	2,9	685	-1,4
To households	63	-0,1	2.238	0,9
To municipal consumption and other	9	12,4	291	-2,4
Percentage of lost water at supply network day)	20	-1,0	15	-3,2
	130	0,8	132	1,5

Source: Instituto Aragonés de Estadística and Instituto Nacional de Estadística.

**Households water consumption.**

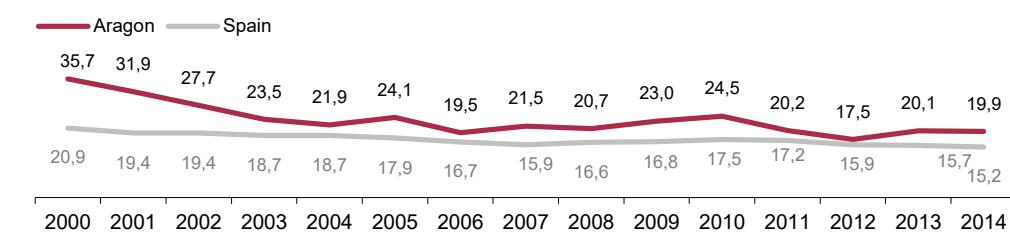
Unit: litres per inhabitant and day.



Source: Instituto Nacional de Estadística.

**Lost water at urban supply network.**

Unit: percentage.



Source: Instituto Nacional de Estadística.

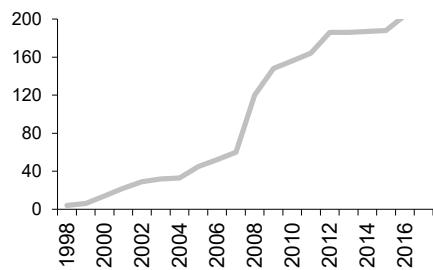
**ENVIRONMENT****Waste water****Urban waste water treatment.**

	Aragon		Spain	
	2014	% Annual variation	2014	% Annual variation
Volumen of treated waste water (m <sup>3</sup> /day)	552.592	-0,9	13.540.084	-1,1
Total volumen of reused water (m <sup>3</sup> /day)	4.189	-4,0	1.453.995	-0,1
Total expense in the investment in collection and treatment of waste water (1,000 EUR)	-	-	-	-
Total expense in cleaning and treatment fees (1,000 EUR)	73.280	0,8	2.536.798	6,5

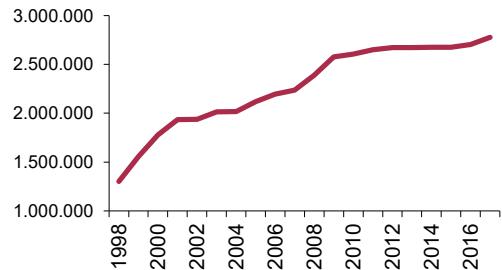
From 2004 onwards waste water not coming from the supply network is added (pluvial, self-extraction and other sources), delegated city councils or other entities managing the cycle of water. This leads to a better estimation of the charged amounts on waste water treatment, which must be taken into account when comparing the indicators of water unitary cost with previous years.

Source: Instituto Aragonés de Estadística and Instituto Nacional de Estadística.

**Number of urban waste water treatment plants into service. Aragon.**



**Equivalent inhabitants with urban waste water treatment plants. Aragon.**



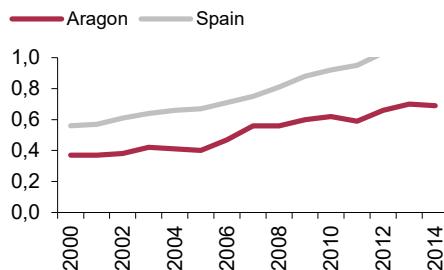
Source: Instituto Aragonés de Estadística and Instituto Aragonés del Agua.

## ENVIRONMENT

### Estimated water average cost

#### Supply water

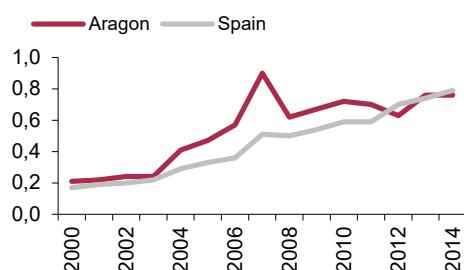
Unit: euros per cubic metre.



Source: Instituto Nacional de Estadística.

#### Treated water

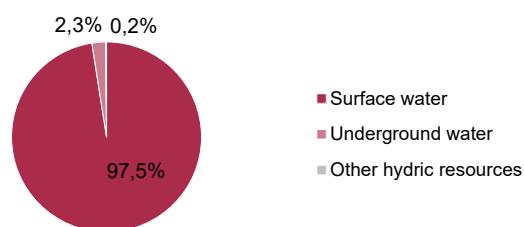
Unit: euros per cubic metre.



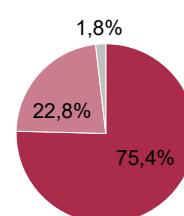
### Irrigation water

#### Irrigation water availability, by water source, 2015.

Aragon: 2,552,468 thousands of m<sup>3</sup>.



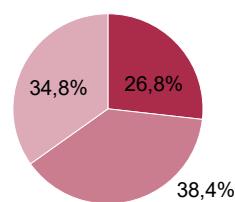
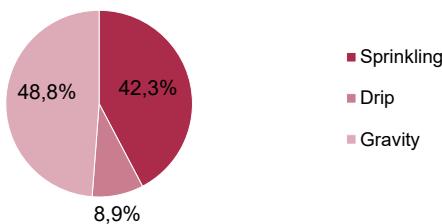
Spain: 18,639,889 thousands of m<sup>3</sup>.



#### Water consumption at agricultural holdings by irrigation system, 2015.

Aragon: 2,018,148 thousands of m<sup>3</sup>.

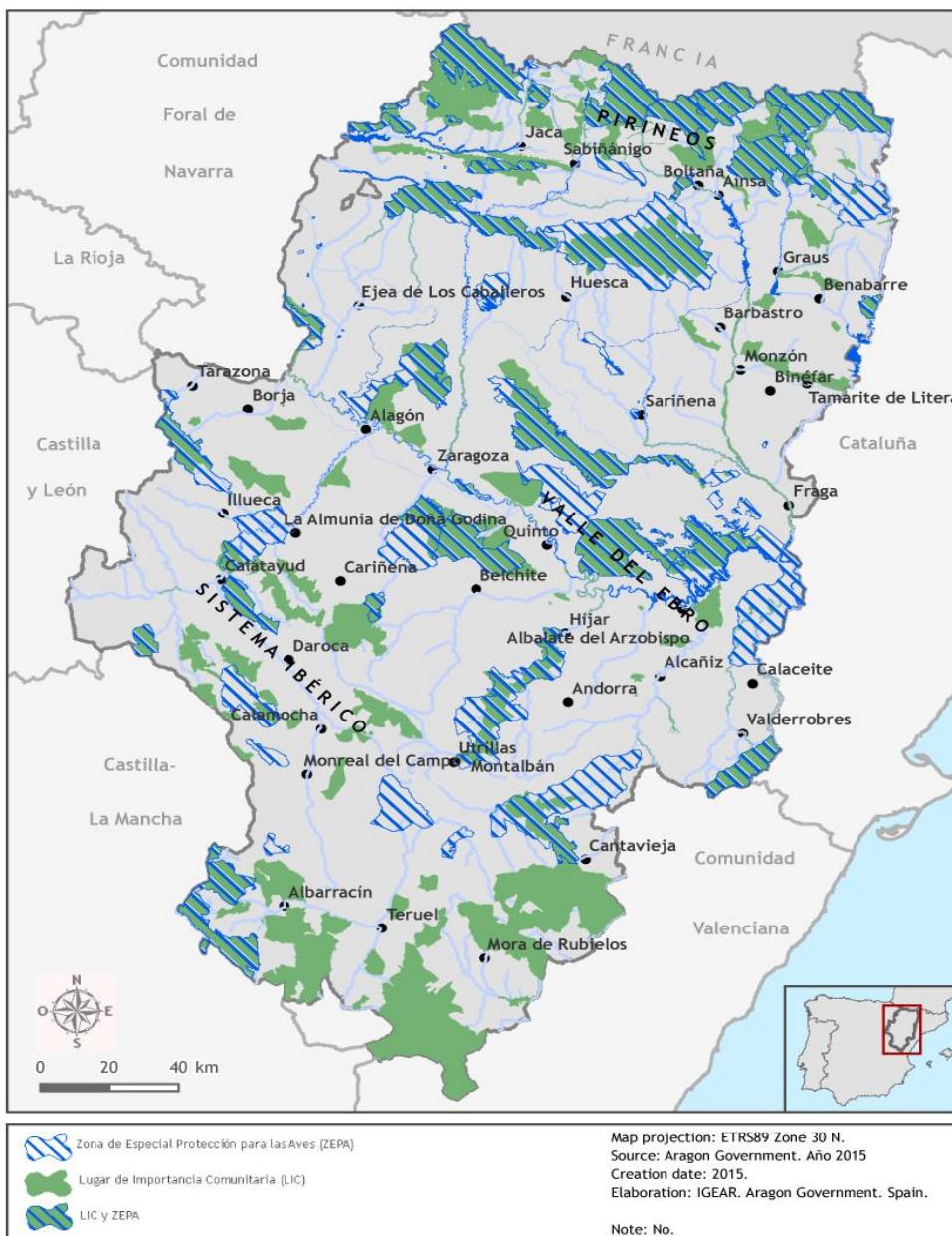
Spain: 14,944,684 thousands of m<sup>3</sup>.



Source: Instituto Aragonés de Estadística, with data from Instituto Nacional de Estadística.

## ENVIRONMENT

Natural conservation areas according to The Habitats Directive:  
Natura 2000 network



## ENVIRONMENT

### Protected areas

#### Protected areas. Aragon, 2017.

	Area Number	(Hectares)
<b>Protected Natural Sites</b>	1	15.696
National Park	4	119.323
Nature Park	4	28.461
Protected Landscape	3	3.623
Nature Reserve	12	4.055
Nature Monument		
<b>Natura 2000 network</b>		
Special Protection Areas (Birds Directive)	48	870.133
Sites of Community Importance (Habitats Directive)	156	1.047.263

Some natural areas share their surface area, up to a total of 2,871 has.

The SPA and SCI spaces overlap in some cases.

Source: Departamento Desarrollo Rural y Sostenibilidad. Gobierno de Aragón.

#### Visitors at Ordesa y Monte Perdido National Park.

	1989	2011	2012	2013	2014	2015	2016
No. of visitors	450.000	612.500	607.450	589.400	590.050	598.950	608.950

Source: Red de Parques Nacionales. Ministerio de Agricultura, Alimentación y Medio Ambiente.

### Forestry area

#### Forestry surface area.

	total forestry area (hectares)	Wooded area over forestry area (%)	State- owned wooded area (%)
Aragon	2.615.332	59,02	46,55
Spain	27.738.005	66,31	28,20

Dominant wooded vegetation.

Unit: hectares.

	Coniferous	Leafy	Mixture of coniferous and leafy
Aragon	953.440	423.682	163.910
Spain	6.829.842	10.057.953	1.401.823

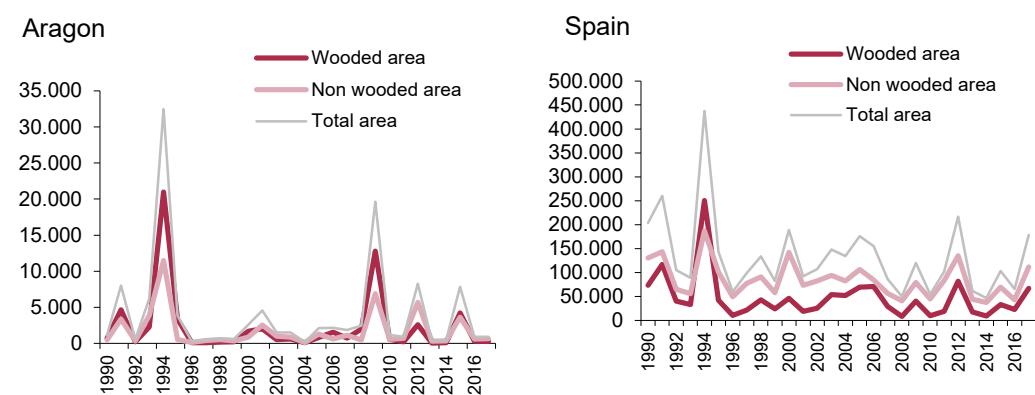
Source: Anuario de estadística forestal 2013. Ministerio de Agricultura, Alimentación y Medio Ambiente.

## ENVIRONMENT

### Forest fires

Surface area affected by forest fires.

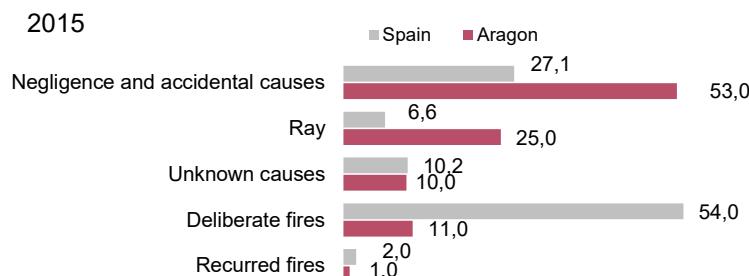
Unit: hectares.



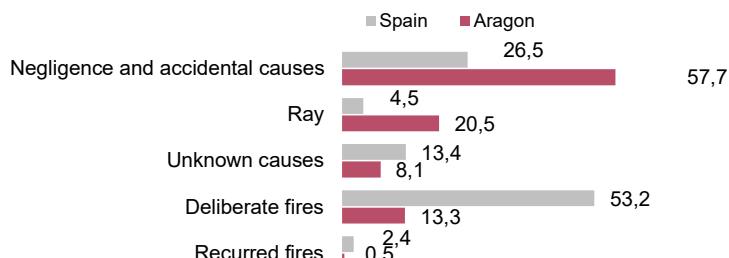
2016, provisional data

Causes of forest fires.

Unit: percentage of total number of fires.



Average values, 2005-2013.



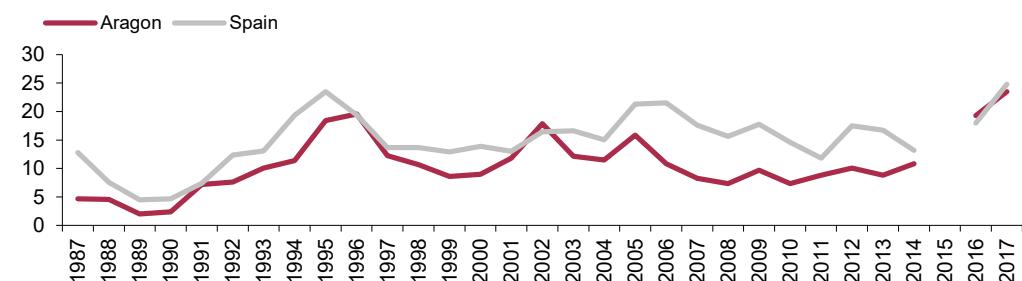
Source: Departamento de Desarrollo Rural y Sostenibilidad. Gobierno de Aragón, and Ministerio de Agricultura, Alimentación y Medio Ambiente.

## ENVIRONMENT

### Forest mass state

Mild, serious or terminal defoliation of forest mass.

Unit: percentage.

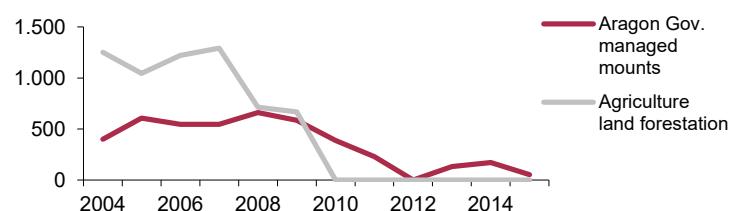


Source: Instituto Aragonés de Estadística, with data from Inventario de daños forestales (IDF) en España. Ministerio de Agricultura, Alimentación y Medio Ambiente.

### Reforestations

Reforested area. Aragon.

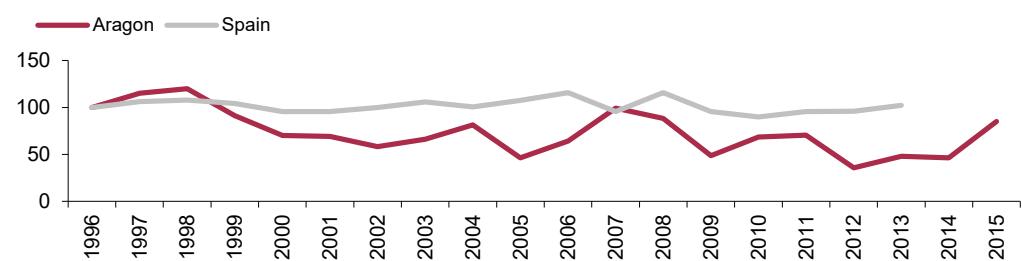
Unit: surface area in hectares.



The forest mass defoliation is the process where a vegetable species loses leaves, because of a pathological or climate stress, that provokes the premature or abnormal fall of them.

### Wood cut

Unit: index 1996 = 100.



Source: Departamento de Desarrollo Rural y Sostenibilidad. Gobierno de Aragón, and Ministerio de Agricultura, Alimentación y Medio Ambiente.

## ENVIRONMENT

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### Hunting and fishing

#### Hunting sites. Aragon, 2015.

	Hectares	Percentage
Municipal and game preserves	3.887.336	85,77
Private game preserves	304.723	6,72
Social game preserves	28.808	0,64
Intensive hunting farms and preserves	6.609	0,15
Hunting reserves	191.078	4,22
Closed preserves	70.758	1,56
Other sites	42.911	0,95

**Hunting sites** are those ones in which hunting is authorized. They are classified as hunting reserves and game preserves.

Source: Instituto Aragonés de Gestión Ambiental. Gobierno de Aragón.

#### Continental fishing sites. Aragon, 2018.

	Number	Length (Km)
Social preserves in extractive Regime	12	87,7
Catch and release social preserves	18	138,2
Intensive fishing stretches	58	-
Fishing reserves	94	885,5
Game preserves	33	-

Source: Boletín Oficial de Aragón nº 32 de 14 de febrero de 2018.

#### Hunting and fishing licenses. Aragon.

	2012	2013	2014	2015	2016	2017
Hunting licenses	51.169	50.821	50.814	50.948	51.281	47.130
Fishing licenses	71.043	68.963	70.142	70.105	67.677	64.174

Source: Instituto Aragonés de Gestión Ambiental. Gobierno de Aragón.

**ENVIRONMENT****Urban waste**

Urban waste collection, 2015.

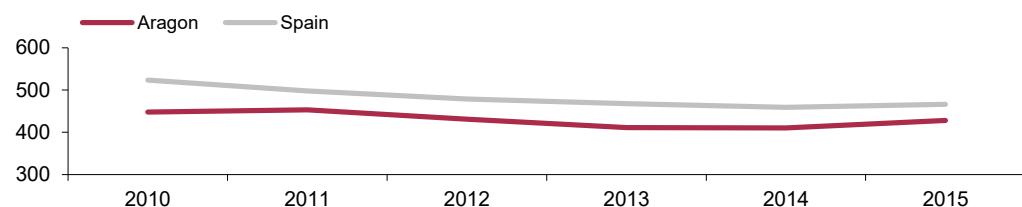
Unit: kilograms per inhabitant and year.

	Aragon		Spain	
	2015	% Annual variation	2015	% Annual variation
Mixed waste	346,3	17,9	382,5	1,4
Selectively collected waste:				
Glass	13,4	7,2	16,3	3,2
Paper and cardboard	17,0	0,6	21,7	3,3
Mixed containers and packaging	12,4	12,7	12,8	4,9

Source: Instituto Nacional de Estadística.

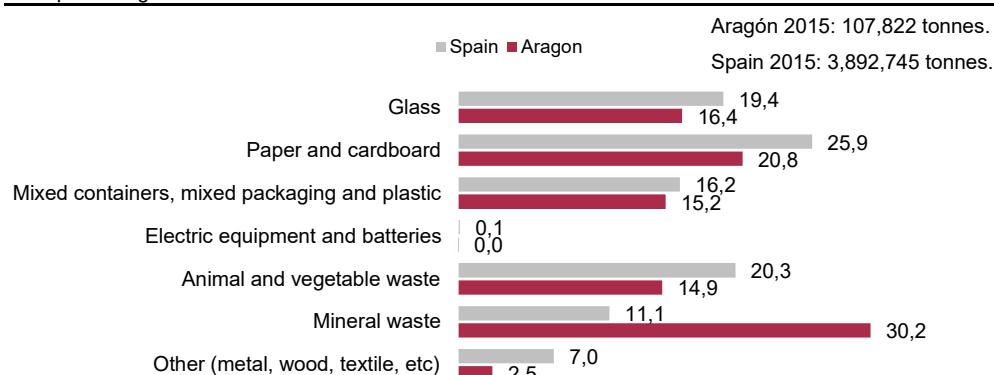
Urban waste collected per inhabitant and year.

Unit: kilograms/inhabitant/year.



Selectively collected urban waste, 2015.

Unit: percentage.



Source: Instituto Nacional de Estadística.

## ENVIRONMENT

### Industrial waste

Total amount of generated waste in industry, 2010.

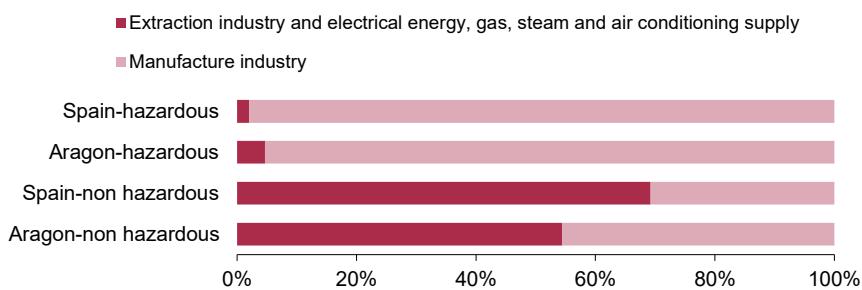
Unit: tonnes.

	Aragon		Spain	
	2010	% Annual variation	2010	% Annual variation
Total	1.986.510	-3,6	50.551.293	25,9
Hazardous	26.228	-12,6	1.393.878	0,8
Non hazardous	1.960.282	-3,5	49.157.415	26,8

Source: Instituto Aragonés de Estadística and Instituto Nacional de Estadística.

Generated waste by industrial sectors, 2010.

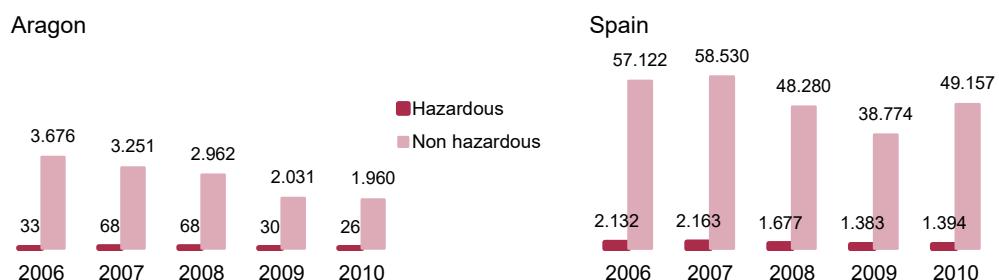
Unit: percentage.



Source: Instituto Nacional de Estadística.

Evolution of hazardous and non hazardous waste generated by industry.

Unit: 1,000 tonnes.



Source: Instituto Nacional de Estadística.