

Report on the environment in Andalusia

Basic Data



2022 Edition



Report on the environment in Andalusia. Basic Data, 2022 Edition

This publication, periodical since 1995, includes relevant cartographic and statistical information on the Andalusian environment, in a synthetic and organized way, providing an overview of the environmental reality in Andalusia.

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The source of information for this publication comes mostly from the Consejería de Sostenibilidad, Medio Ambiente y Economía Azul de la Junta de Andalucía. Other different sources, indicated in this document with a number in brackets, [], can be checked in the back cover.

Edit

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Cnidario (*Cerianthus membranaceus*). Playa de los Lances, Tarifa (Cádiz). Author: Javier Aparicio.

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The climate profile for 2021 followed on from the previous year, and was again characterised by low rainfall, high temperatures and, as a result, the prolongation of the drought and a low humidity index, with desertification becoming established as an environmental problem of a structural nature in Andalusia. Compare to previous year, in 2021 the drought was more severe and covered a larger area, extending nearly the whole regional surface.


The results of the Global Water Stress indicator in the hydrological year 2020-2021 reveal a water stressed area in the region of 18.1%, a figure which has remained relatively stable since 2013.

AVERAGE TEMPERATURE 2021

 **16.4°C¹**

16.0°C Average temperature in the period 1971-2000

PRECIPITACIÓN MEDIA 2021

 **400.8 mm¹**

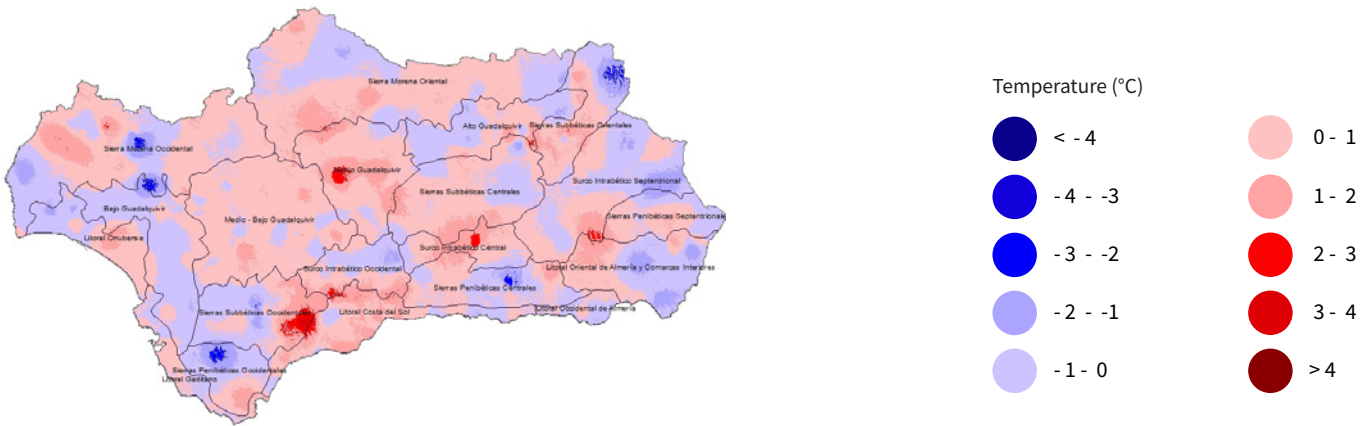
533.7 mm Average rainfall in the period 1971-2000

¹ Provisional data

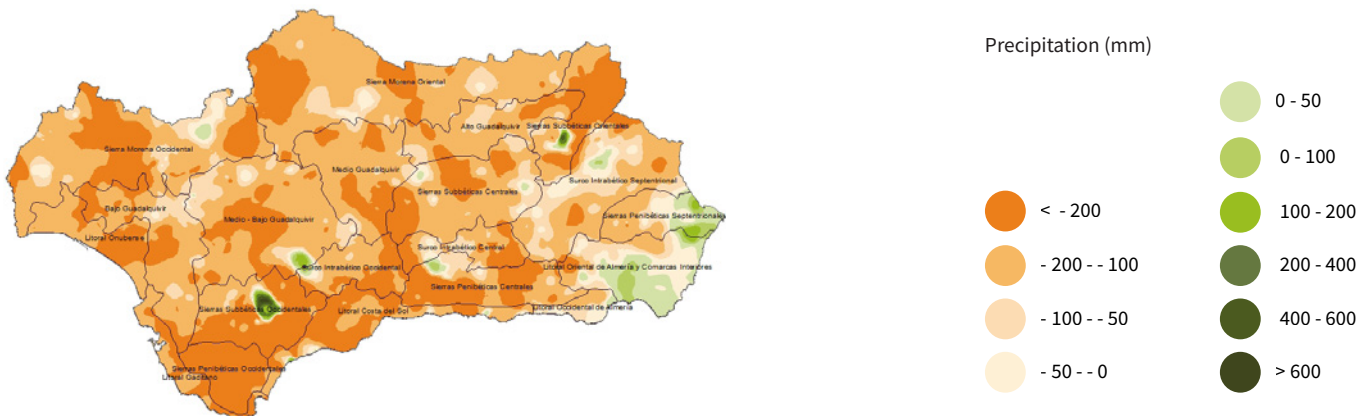
AVERAGE TEMPERATURE 2021

	Temperature (°C)	Average 1971 - 2000 (°C)
Almeria	15.8	15.9
Cadiz	17.4	17.5
Cordoba	16.9	16.3
Granada	14.0	13.7
Huelva	17.3	17.2
Jaen	15.8	15.5
Malaga	16.7	16.0
Seville	17.7	17.4
Andalusia	16.4	16.0

AVERAGE TEMPERATURES DEVIATIONS IN 2021 COMPARED TO THE AVERAGE OF THE PERIOD 1971-2000



TOTAL RAINFALL DEVIATIONS IN 2021 COMPARED TO THE AVERAGE VALUE DURING THE PERIOD 1971-2000



MOISTURE INDEX 2021



0.46

0.63 in the period 1971-2000



STANDARDIZED INDEX OF RAINFALL DROUGHT 2021

7 months of moderate drought



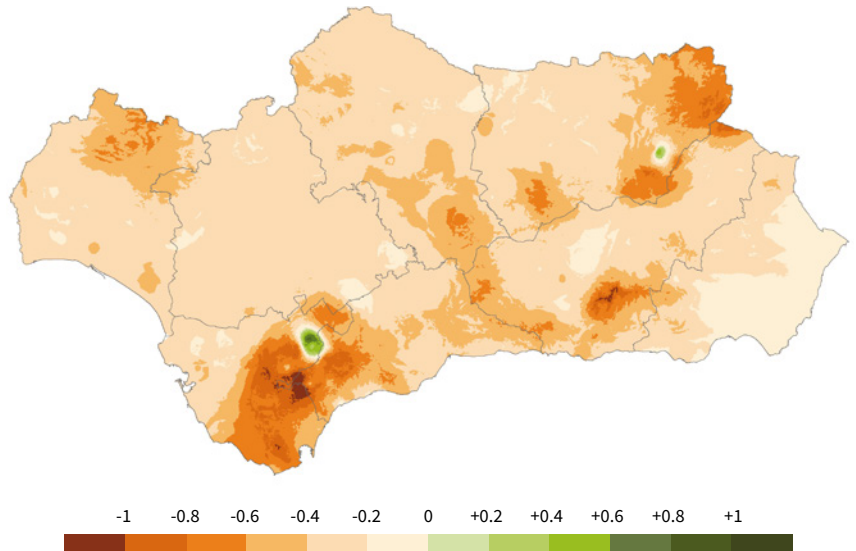
REGIONAL AREA WITH STRESSED VEGETATION IN THE HYDROLOGICAL YEAR 2020-2021¹

18.1%

21.3% in the period 2002-2020

¹Percentage of stressed vegetation from NDVI Terra-Modis images (Global Stress Indicator).

MOISTURE INDEX DEVIATION IN 2021 COMPARED TO THE AVERAGE VALUE DURING THE PERIOD 1971-2000



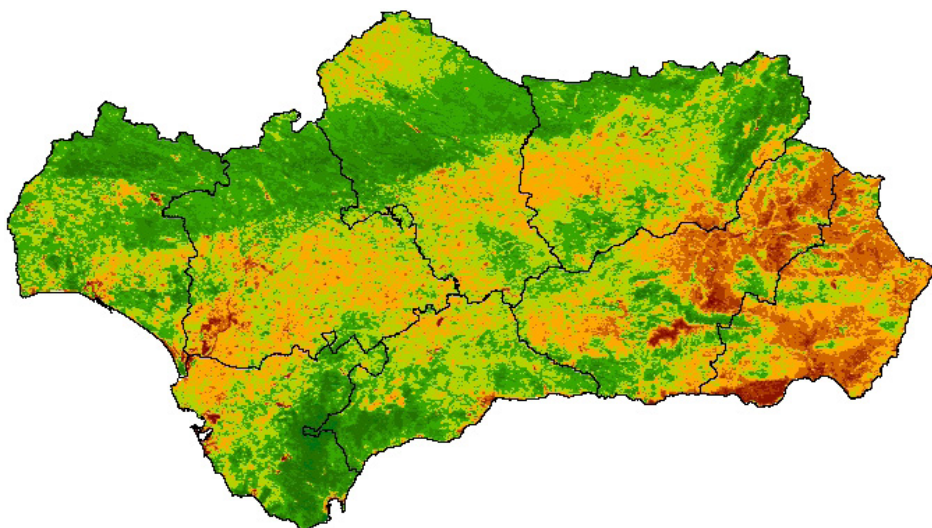
Moisture index deviation range between -1 and 1, with the value -1 indicating the most arid scene, and 1 the most humid.

PERCENTAGES OF STRESSED AND UNSTRESSED VEGETATION AND GLOBAL WATER STRESS INDEX. PERIOD 2002-2021

	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Index expression	41.3	21.0	41.6	30.8	35.3	16.8	25.5	11.2	9.4	13.4	8.6	17.5	18.3	19.3	19.4	18.4	18.4	17.8	18.1
Average (stressed vegetation)	58.7	78.5	58.4	69.3	64.7	83.3	74.5	88.8	90.6	86.6	91.4	82.5	81.7	80.7	80.6	81.6	81.6	82.3	81.9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Unstressed vegetation	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
Stressed vegetation	0.70	0.27	0.71	0.44	0.55	0.20	0.34	0.13	0.10	0.15	0.09	0.21	0.22	0.24	0.24	0.22	0.22	0.22	0.22

Stressed vegetation is that which is subjected to water stress due to lack of water. The index expression represents the quotient between the percentages of stressed and unstressed vegetation.

VEGETATION WATER STRESS. HYDROLOGICAL PERIOD 2020-2021



- Maximum stress
- Extremely high stress
- Very high stress
- Moderate stress
- Moderately low stress
- Low stress
- Very low stress
- High stress

THERMAL ANOMALIES¹ IN STATIONS REFERENCE 2021

+0.38°C en Cordoba

+1.04°C en Granada

+0.10°C en Jerez de la Frontera

1. Temperature differences with the mean of the 1960-1990 reference series in each station.

ULTRAVIOLET INDEX 2021 [1]

17.9% days with extreme heat

26.2% in 2020

GREENHOUSE GAS EMISSIONS 2020 [2] [3]

Total emissions **38,269.9 Kt CO₂ eq**

18.3% less than in 2019

GEI emissions per capita **4.52 tCO₂eq/inhab**

5.57 tCO₂eq/inhab in 2019

Validated emissions submitted to the emissions trading scheme 2021

13.93 millions tons of CO₂

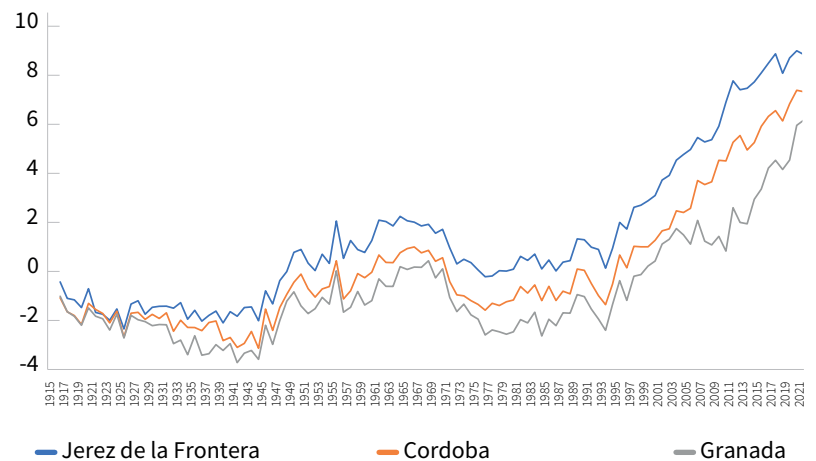
2% less than in 2020

The most significant political milestone in Andalusia in 2021 in terms of climate change was the approval of Decree 234/2021, of 13 October, approving the Andalusian Climate Action Plan.

The Global Warming Index shows the upward trend followed by the temperatures; the high records reached in 2020 in the three stations of reference remained at almost the same level in 2021. The ultraviolet index shows similar values to those recorded in 2020, with a fall in the percentage of days with an extreme range.

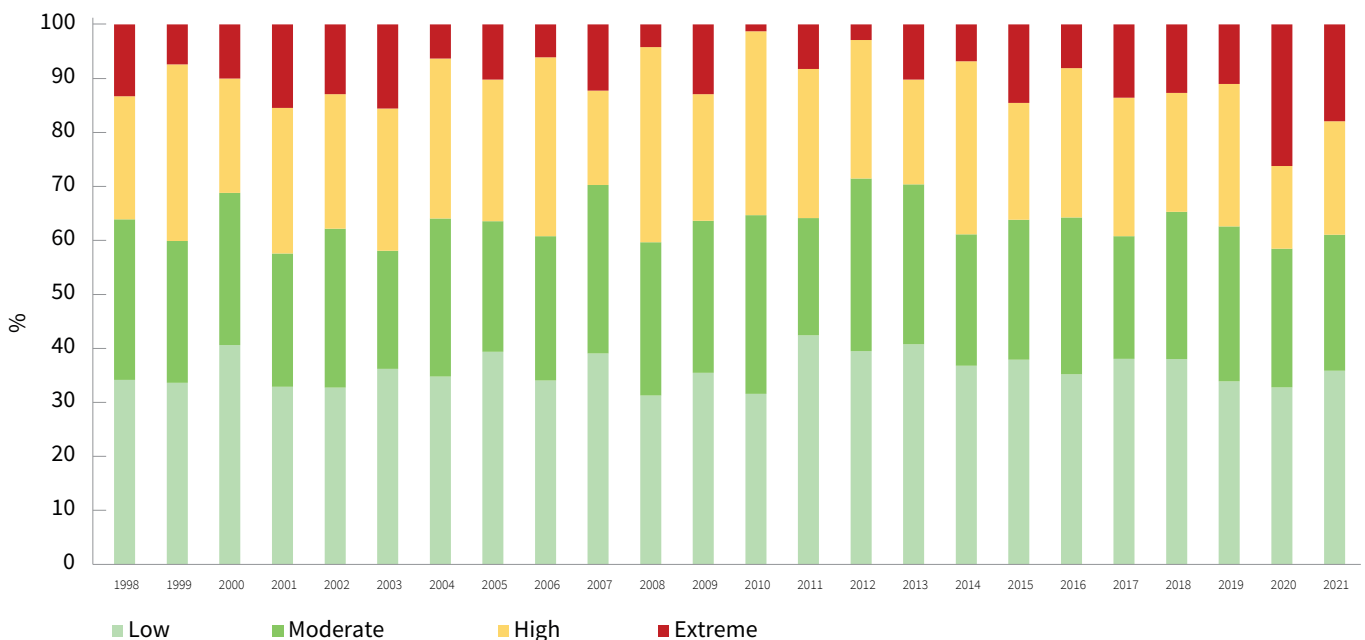
Greenhouse gas emissions in 2020 maintained the decreasing trend of recent years. Emissions rose less than the Gross Domestic Product, implying an improvement on the eco-efficiency of our economy; there was also a significant decrease in emissions per capita.

GLOBAL WARMING INDEX IN ANDALUSIA IN REFERENCE SITES



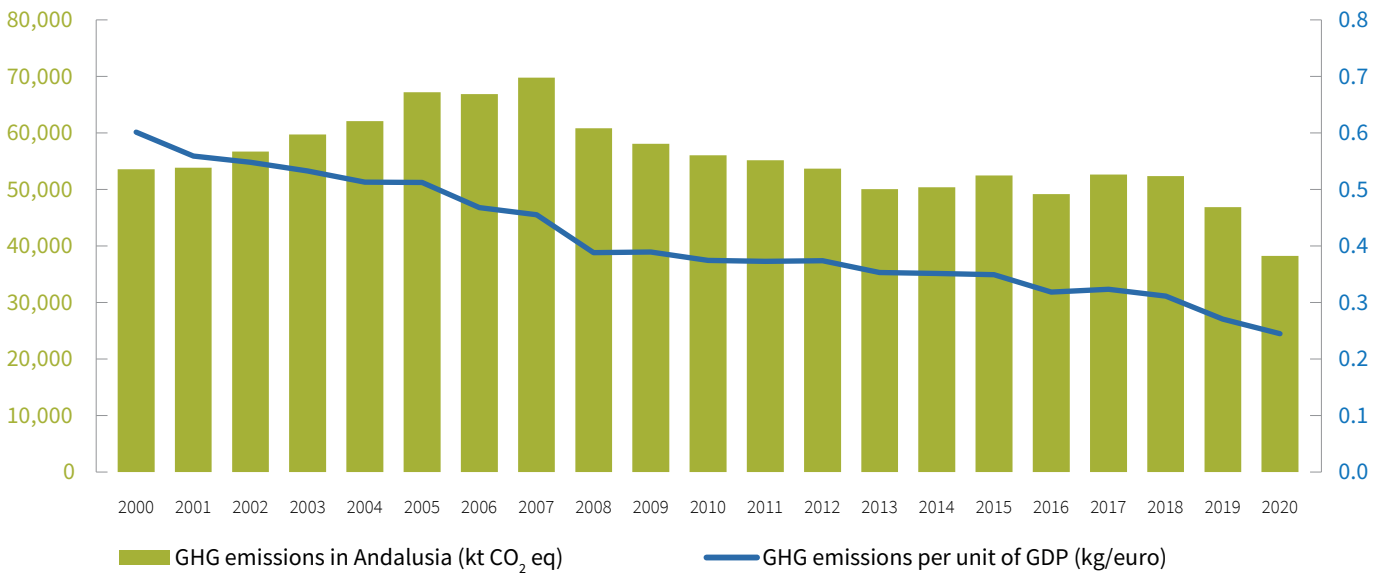
Measurement that synthesizes the values of thermal anomalies.

ULTRAVIOLET INDEX (UVI). PERCENTAGE OF DAYS BY RANGE [1]

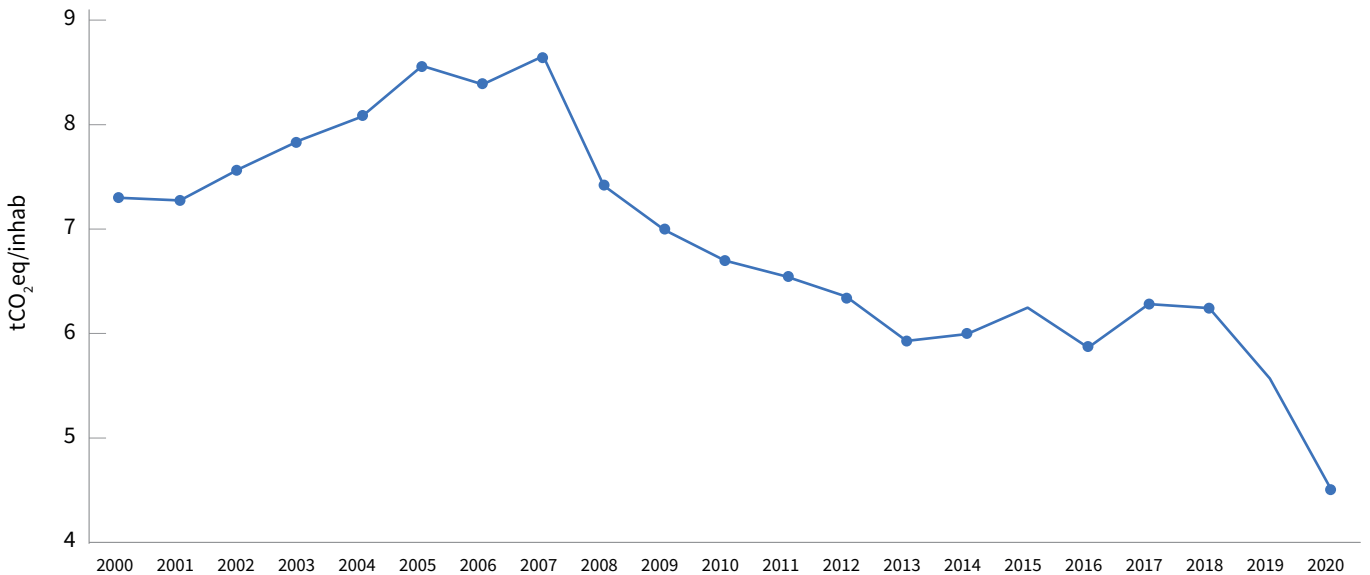


Low: UVI <4. Moderate UVI [4.7]. High: UVI [7.9]. Extreme: UVI >9.

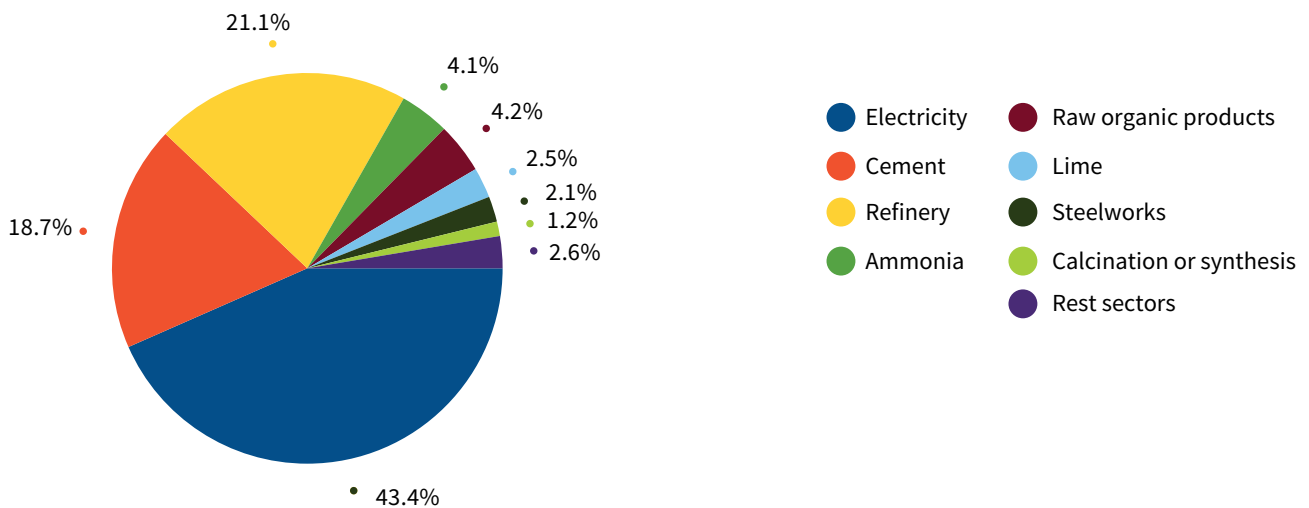
GREENHOUSE GAS EMISSIONS AND ECO-EFFICIENCY [2][3]



GREENHOUSE GAS EMISSIONS PER CAPITA [2][4]



CONTRIBUTION BY SECTORS TO CO₂ EMISSIONS OF RCDE 2021



RCDE: Greenhouse gas emission rights trading scheme.

Soil and land use

Collected rainfall in 2020 in Andalusia amounted to 465 mm (final figures), a volume which is clearly below the baseline average, 17.3% lower. The nature of the rainfall was not markedly stormy, so that the soil losses measured in the region remained at one of the lowest levels recorded for the period (1992–2020). Throughout the region, the erosive capacity of the rainfall remains well below the mean erosivity for the 1992–2019 period (782.2 megajoules per millimetre/hectare per hour and year (Mj*mm/ha*hour*year), of which it only represents 45%. All the provinces remained below the average levels with reductions ranging between 54.3% in Granada to a maximum of 75% in Almeria.

At the end of 2021, work started on updating the information on land use and occupation based on the complete orthophoto of Andalusia taken in 2020.

PERCENTAGE OF SURFACE SUBMITTED TO HIGH OR VERY HIGH SOIL LOSSES IN 2020

2.9%

Average for the period 1992–2019

8.2%

FOREST AND NATURAL AREAS

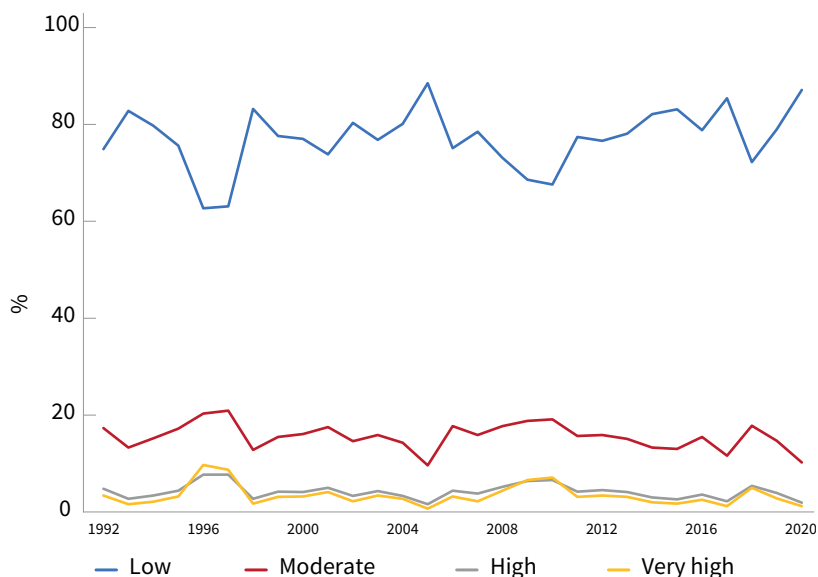
4,395.4 thousands of hectares

AGRICULTURAL AREAS

3,617.7 thousands of hectares

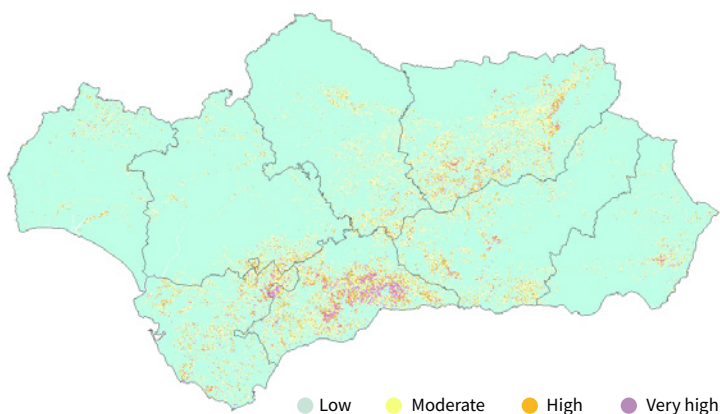
Information extracted from the cartographic base of the project "SIOSE Andalusia" (Information System of Land Use in Spain). Update 2016 (methodological adjustment made in 2021).

PERCENTAGE OF SURFACE WITH SOIL EROSION



SOIL LOSS 2020 (%)

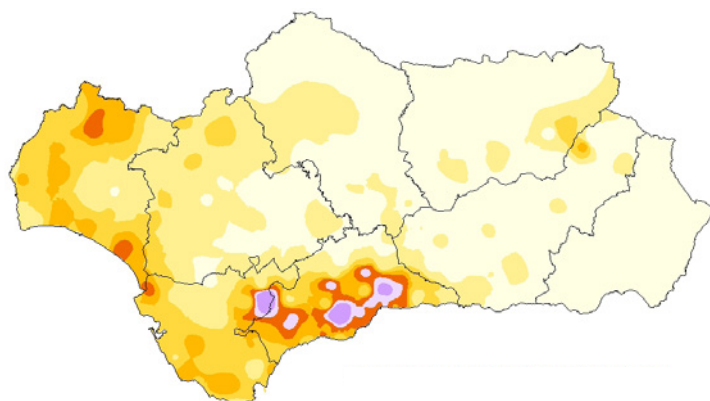
	Low	Moderate	High	Very high	Total
Almeria	95.7	3.8	0.4	0.1	100.0
Cadiz	79.7	15.4	3.1	1.8	100.0
Cordoba	91.0	8.1	0.7	0.2	100.0
Granada	86.9	10.6	1.8	0.7	100.0
Huelva	95.0	4.4	0.4	0.2	100.0
Jaen	80.6	15.2	2.9	1.3	100.0
Malaga	63.7	22.5	7.1	6.7	100.0
Seville	93.9	5.5	0.5	0.1	100.0
Andalusia	87.0	10.1	1.8	1.1	100.0



RAINFALL EROSIVITY 2020

Megajoule per millimeter/hectare per hour and year

- [0-250] Extremely low
- (250-500] Very low
- (500-750] Low
- (750-1,000] Moderately low
- (1,000-1,500] Moderate
- (1,500-2,000] Moderately high
- (2,000-3,000] High
- (3,000-5,000] Very high
- > 5,000 Extremely high



Erosivity regional average in Andalusia in 2020
358.5 Mj x mm/ha x hour x year.

DAMMED WATER IN BASINS AND RIVER DISTRICTS 2021

3,682.5 hm³

Year 2020: 4,285.4 hm³

NITRATE ANALYSIS IN SURFACE WATER: POINTS WITH VERY GOOD OR GOOD QUALITY¹

[2][5]

95%

NITRATE ANALYSIS IN GROUNDWATER: POINTS WITH VERY GOOD OR GOOD QUALITY¹

[2][5]

66.7%

¹ Below 25 mg/l.

NUMBER OF SEWAGE TREATMENT FACILITIES BUILT UP TO 2021 [5]

747 (683 built and 64 under construction)

POPULATION BENEFITING FROM WATER TREATMENT IN 2021 [5]

7,549,363 inhabitants

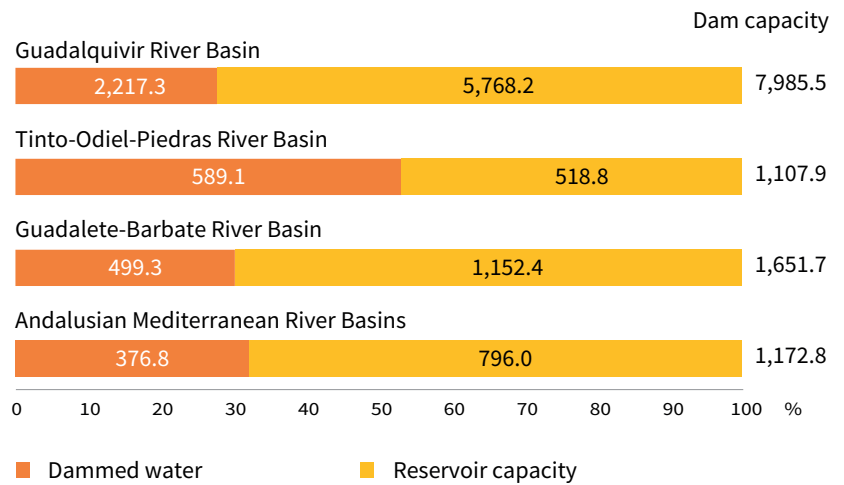
(92.3% of the total non-disseminated population of Andalusia)

As regards the water situation in 2021, the drought of previous years continued, and with it, the gradual reduction of available resources in all the river basin districts, especially that of the Guadalquivir, the most important in the region due to its large reservoir capacity.

With respect to water quality, a reduction in the presence of nitrates was recorded in surface water, which is an improvement of the situation with respect to 2020, while figures for groundwater remained the same, with nitrate readings similar to those of the previous year.

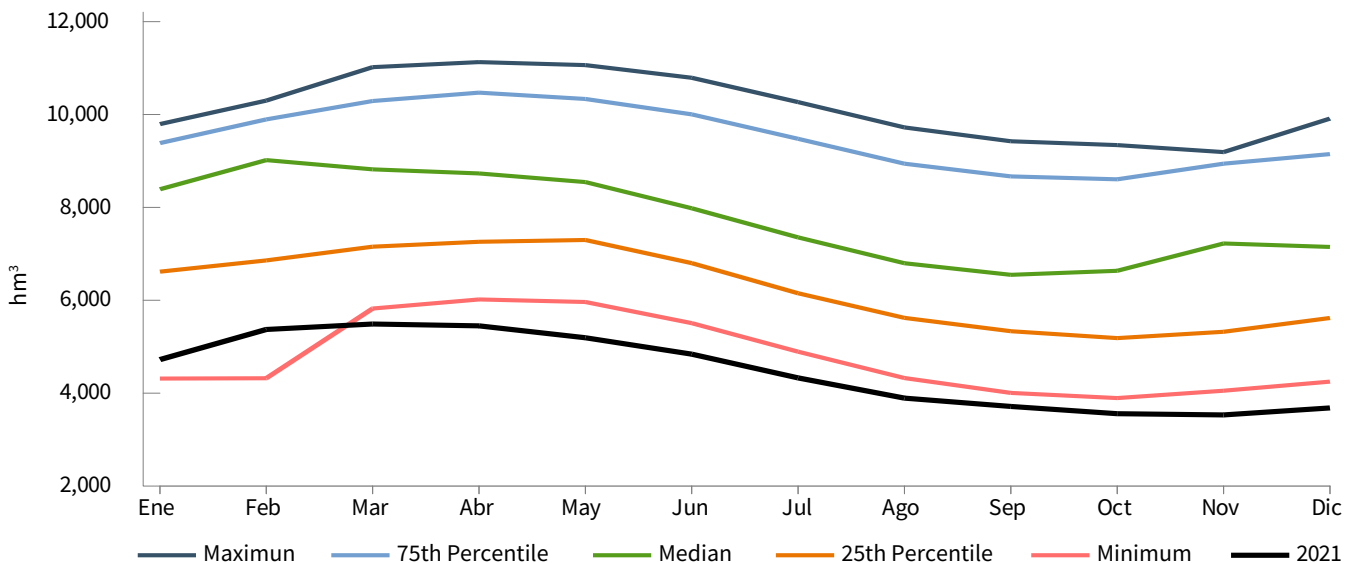
At the same time, the trend in waste water treatment continued to be positive, with a moderate increase in the number of treatment plants and the population size served.

DAMMED WATER IN BASINS AND RIVER DISTRICTS 2021



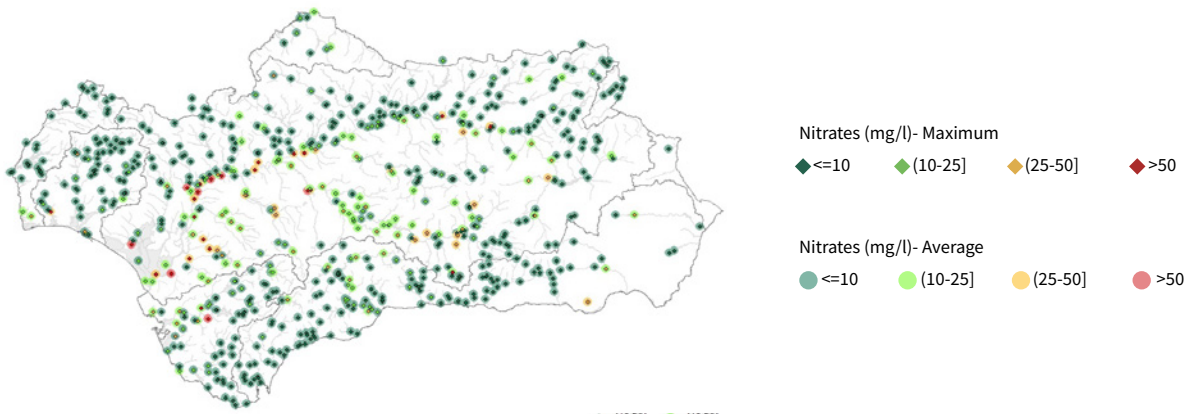
The data correspond to December 2021.

COMPARISON OF THE MONTHLY RESERVE IN ANDALUSIAN RIVER BASIN DISTRICTS FOR 2021 AND FOR THE 2010-2020 PERIOD

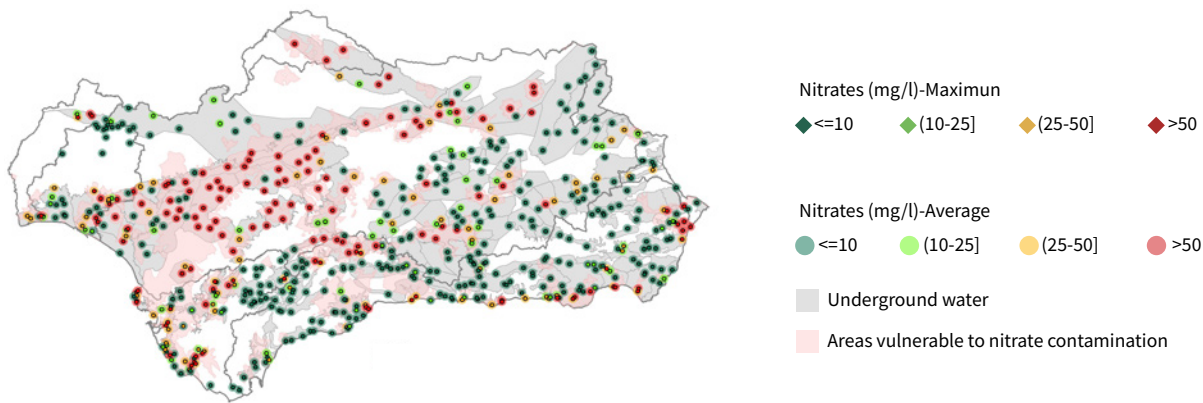


The Maximum, 75th Percentile, Median, 25th Percentile and Minimum are for the 2010-2020 period. The maximum reservoir capacity is 11,917.9 hm³.

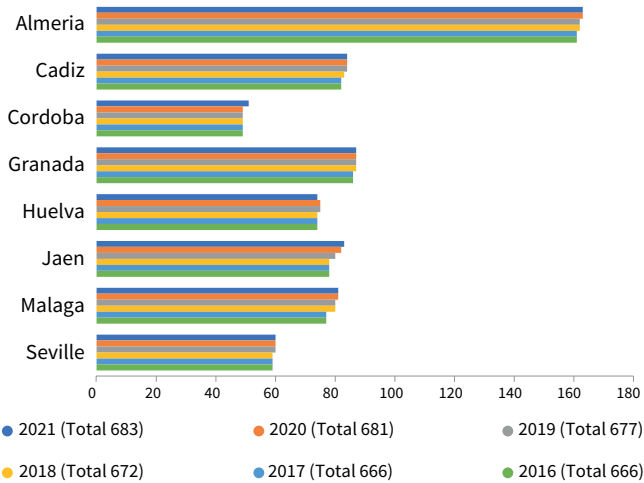
NITRATES IN SURFACE WATER. AVERAGE AND MAXIMUM VALUES BY SAMPLE POINTS 2021 [2][5]



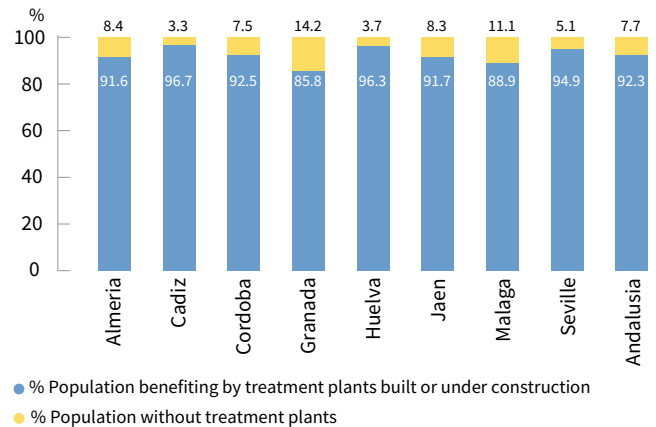
NITRATES IN GROUNDWATER. AVERAGE AND MAXIMUM VALUES BY SAMPLE POINTS 2021 [2][5]



EVOLUTION OF WATER TREATMENT PLANTS BUILT [5]

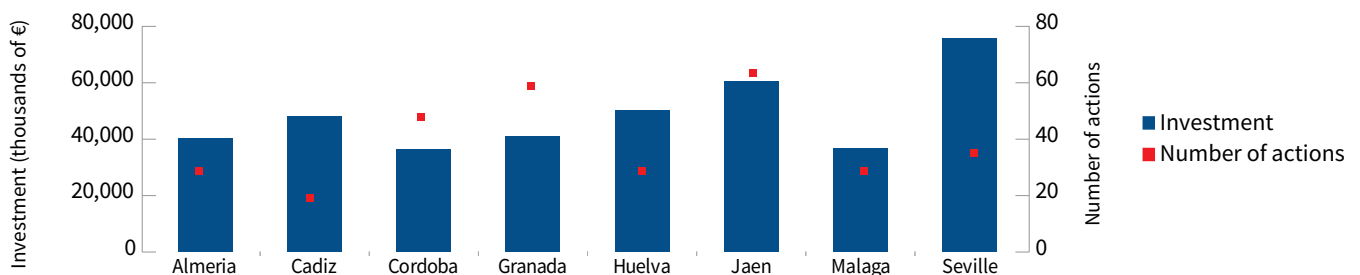


POPULATION BENEFITED BY WATER TREATMENT 2021 [5]



When calculating the population who benefited from wastewater treatment plants, both the wastewater treatment plants that were built and the ones under construction are included. When calculating the population who benefited from the above, the figures for the non-disseminated population provided by the Municipal Register of Inhabitants for 2021 was used.

ACTIONS OF TREATMENT WORKS COMPLETED OR IN PROGRESS 2020 [5]



Investment executed (accumulate) as of December 31, 2020. The file types called "Works", "Projects", and "Projects and works" have been recorded. The sanitation and purification works declared of general interest by the Government Council Agreement of 2010 are included.

LICENCES FOR FOOD AND DRINK RETAILER PREMISES LOCATED IN THE DPMT

842 in 2021

846 in 2020

USE AUTHORIZATION DOSSIERS FOR ACTIVITIES LOCATED IN THE DPMT

Excluding plans of beach

1,043 in 2021

619 in 2020

With plans of beach

67 in 2021

64 in 2020

AUTHORIZATION FILES OF USE FOR ACTIVITIES LOCATED IN ZSP

647 in 2021

412 in 2020

QUALITY OF SEA BATHING WATER IN 2021 [6]

96.9% are of excellent quality

BLUE FLAGS AWARDED IN ANDALUSIAN BEACHES IN 2021 [7]

135

POLLUTANT LOAD DISCHARGED INTO COASTLINE 2020

329,369 PT urban effluent

2.7% more than in 2019

44,636 PT industrial effluent

7.8% less than in 2019

PT: pollution units.

MEAN ANNUAL SURFACE TEMPERATURE OF THE SEA 2021

18.87°C

Period 2000-2021:
18.52 °C

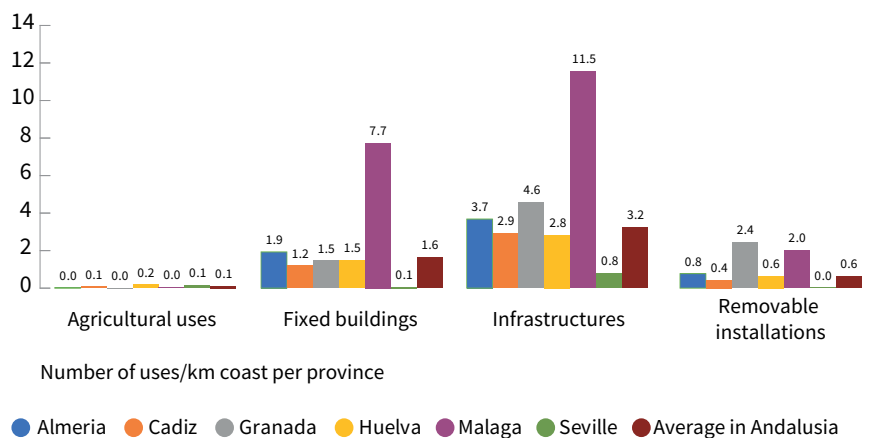
The blue economy, promoted by the European Union, covers the economic sectors related to the oceans, seas and coasts and seeks to decouple economic development from environmental degradation. In Andalusia, a Sustainable Blue Economy Strategy is being developed.

Economic activity associated with the coast saw a significant increase in 2021 with respect to the previous year, judging by the evolution of licences to set up activities in the maritime-terrestrial public domain (DPMT) and its protection zone easement (ZSP).

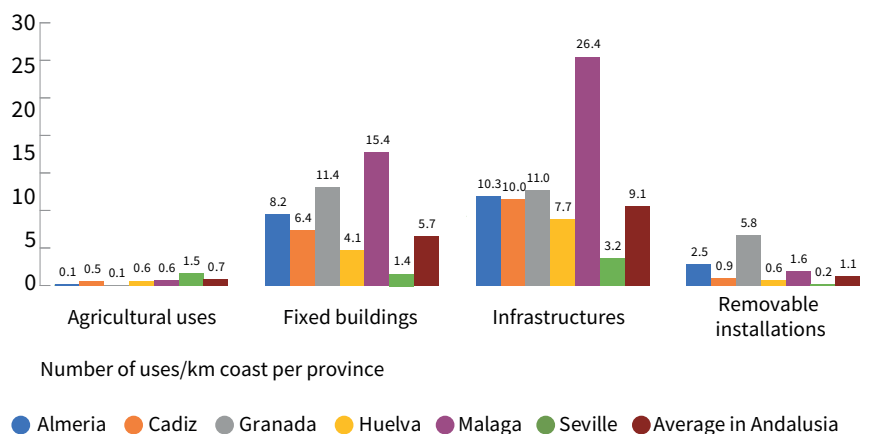
In turn, two trends were observed for discharges on the coast, as with respect to the previous year urban discharges increased, while industrial discharges decreased.

With regard to the surface temperature of the sea, the upward trend continues.

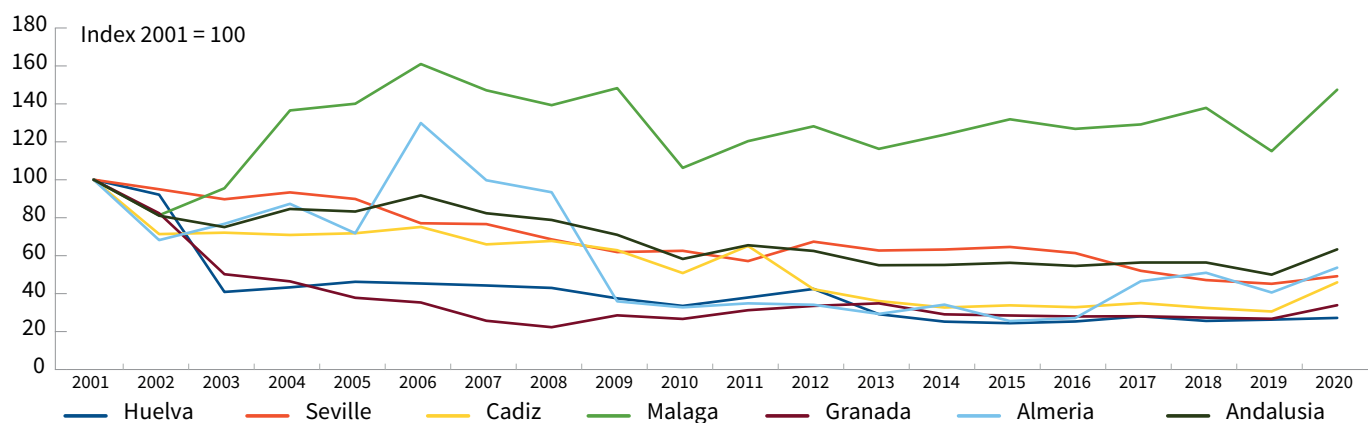
DENSITY OF USES IN DPMT 2021



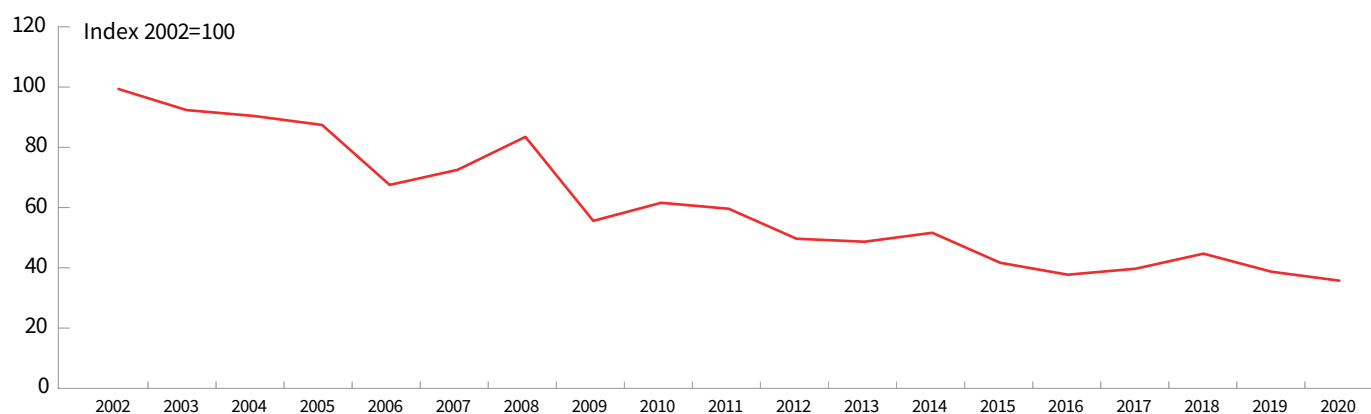
DENSITY OF USES IN ZSP 2021



POLLUTANT LOAD OF URBAN EFFLUENTS TO THE COAST



POLLUTANT LOAD IN INDUSTRIAL DISCHARGES



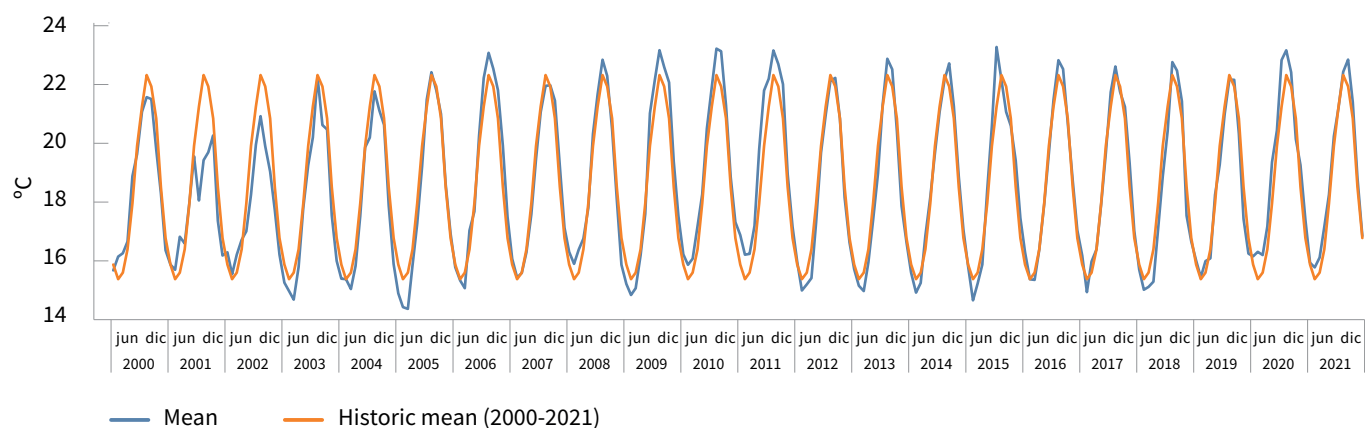
MARITIME BATHING AREAS 2021 [6]

Province	Point numbers by quality level	
	Registered	With excellent quality
Almeria	91	91 (100.0%)
Cadiz	77	75 (97.4%)
Granada	37	33 (89.2%)
Huelva	49	45 (91.8%)
Malaga	97	96 (99.0%)
Andalusia	351	340 (96.9%)

BLUE FLAGS AWARDED IN ANDALUSIAN IN 2021 [7]

Province	Beaches	Ports
Almeria	31	2
Cadiz	30	5
Granada	11	1
Huelva	9	7
Malaga	34	5
Andalusia	115	20

MONTHLY AVERAGE SURFACE TEMPERATURE OF THE SEA COMPARED TO AVERAGE VALUES FOR THE PERIOD 2000-2021



In 2021 few significant fluctuations were recorded in the population of registered wildlife species, with minor changes among different populations, resulting in the decline of breeding waterbirds, the inactivity of the Ibis eremita and the Great bustard and the continued growth of the wintering waterbirds and the Spanish imperial eagle.

At the same time, intense conservation work continued to take place at the Centres for the Recovery of Endangered Species and in the Andalusian botanical and micological gardens network, although the limitations on the development of public use and outreach activities continued.

CENSUS OF WATER BIRDS IN ANDALUSIA 2021

34,216 reproductive couples of **58** different species, distributed in **127** Andalusian wetlands.

819,229 specimens of wintering aquatic birds of **101** different species, distributed in **197** Andalusian wetlands.

IBERIAN LYNX 2021

519 individuals

INCOME IN CREA 2021

8,271 live specimens and **506** dead specimens.

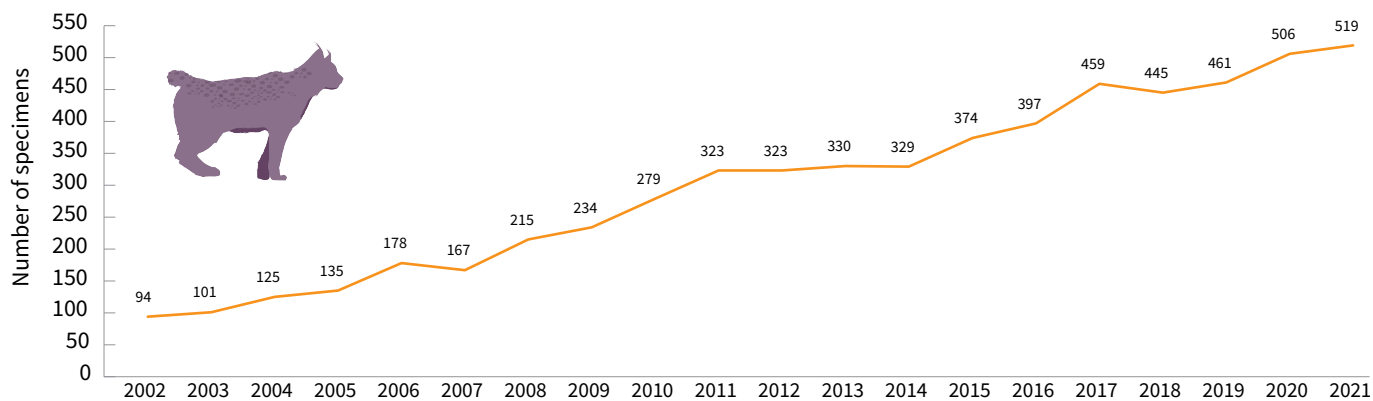
CREA: Endangered species recovery center.

POPULATION STATUS OF SPECIES INCLUDED IN RECOVERY AND CONSERVATION PLANS 2021

Plan for the recovery of the Spanish imperial eagle	Couples
Imperial eagle (<i>Aquila adalberti</i>)	129
Plan for the recovery and conservation of steppe-land birds	Number
Montagu's harrier (<i>Circus pygargus</i>)	586
Bustard (<i>Otis tarda</i>)	370
Programme for the conservation and management of crab populations (freshwater crab)	Population
Crabs (<i>Brachyura</i>)	104
Programme for the reintroduction of the Ibis eremita	Couples
Ibis eremita (<i>Geronticus eremita</i>)	23
Plan for the recovery of the Iberian lynx	Estimated population
Iberian lynx (<i>Lynx pardinus</i>)	519
Plan for the recovery and conservation of carrion-eating birds	Breeding pairs
Egyptian Vulture (<i>Neophron percnopterus</i>)	27
Royal kite (<i>Milvus milvus</i>)	23
Bearded Vulture (<i>Gypaetus barbatus</i>)	5
Plan for the recovery and conservation of wetland birds	Breeding pairs
Marbled duck (<i>Marmaronetta angustirostris</i>)	53
Eurasian bittern (<i>Botaurus stellaris</i>)	11
Crested coot (<i>Fulica cristata</i>)	11
Black tern (<i>Chlidonias niger</i>)	0
Squacco heron (<i>Ardeola ralloides</i>)	104
<i>Oxyura leucocephala</i>	54
Ferruginous duck (<i>Aythya nyroca</i>)	7
Osprey (<i>Pandion haliaetus</i>)	18

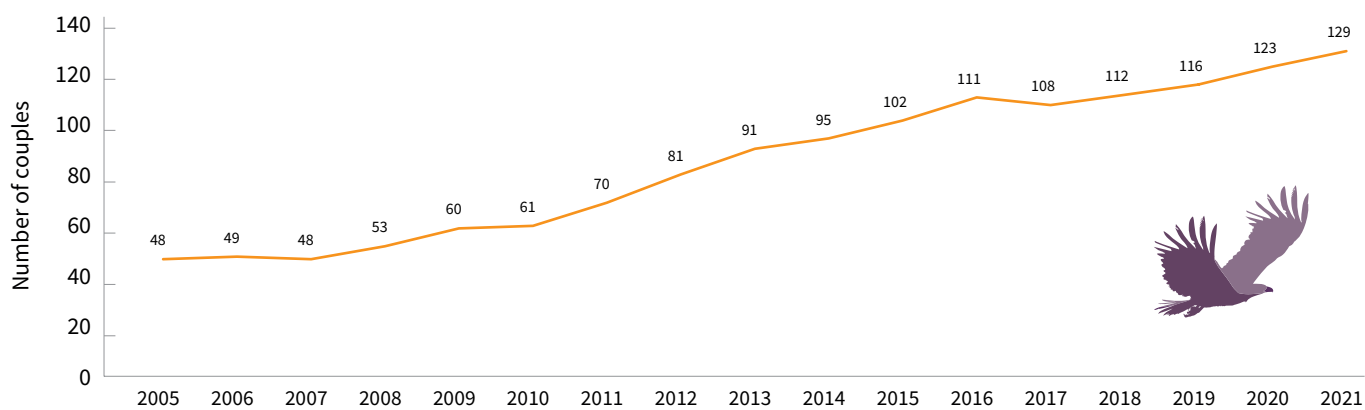


EVOLUTION OF IBERIAN LYNX POPULATION ESTIMATE



Population estimate: minimum number of different animals observed and identified (photographed by camera trapping) in a period of one year.

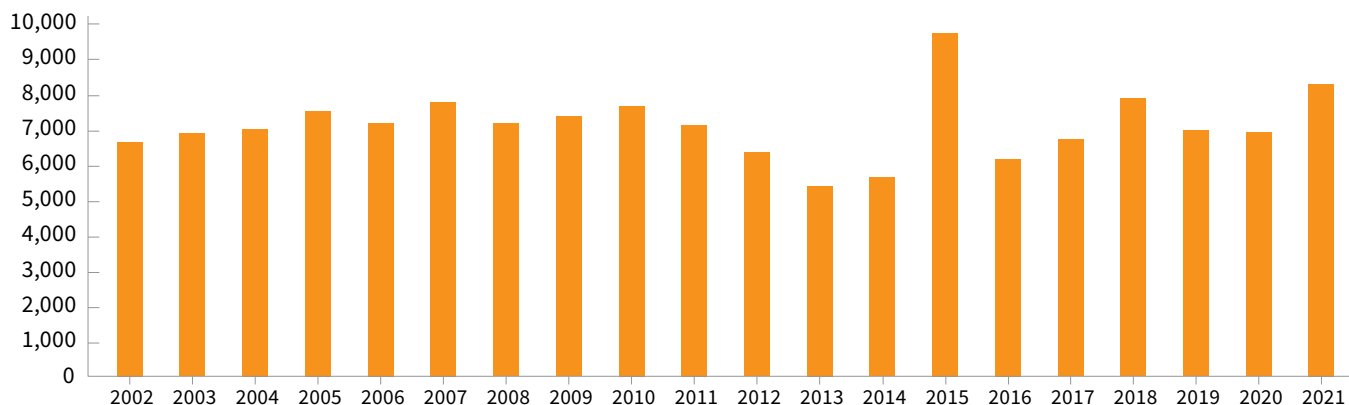
EVOLUTION OF THE IBERIAN IMPERIAL EAGLE



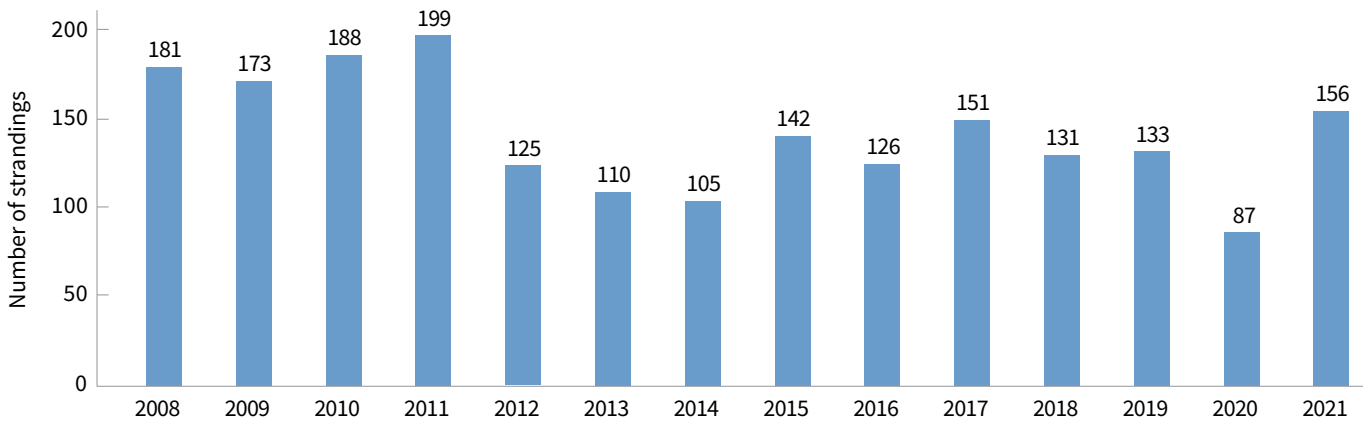
NECROPHAGOUS BIRDS POPULATION



ANIMALS ADMITTED LIVE IN CREAS



STRANDING OF CETACEANS IN ANDALUSIA



ANDALUSIAN BOTANICAL AND MICOLOGICAL GARDENS NETWORK 2021



2,205
exhibited
taxa

473
accessions collected in the
natural environment

288
endangered species in Andalusia, of which
201 are represented in the botanical gardens

685
endangered flora
units located

NUMBER OF FLORA TAXA IN WILDERNESS BOTANICAL GARDENS



PHYTOTOURIST DISSEMINATION PROGRAM. NUMBER OF VISITORS



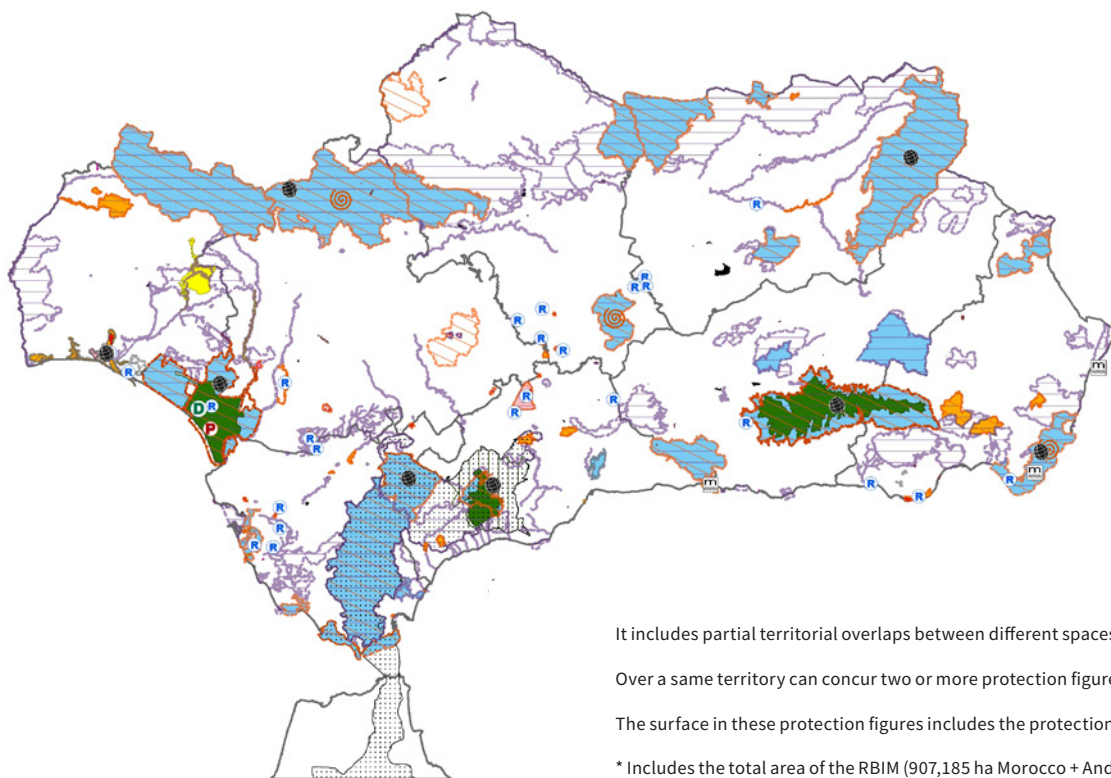
The dynamism of natural protected areas

The most significant milestone in 2021 in relation to the natural protected areas of Andalusia was the declaration of the Sierra de las Nieves National Park, declared by Law 9/2021, of July 1, making it the sixteenth member of the Network of National Parks and the third in Andalusia.

In 2021, the management of the natural spaces continued and the activity and projects derived from international commitments was maintained. In addition, public usage and employment associated with the facilities recovered with respect to 2020, with the easing of the measures to fight Covid-19. Investment aimed at improving and reconditioning the Andalusian network of livestock trails also increased.

NETWORK OF NATURAL PROTECTED AREAS (RENPA) 2021 2,918,847.5 hectares (ha) 2,836,665.7 ha land surface 82,181.8 ha marine surface	PUBLIC FACILITIES 2021 1,064 public facilities 512,785 visits	INVESTMENT IMPROVEMENT AND RECONDITIONING OF LIVESTOCK TRAIL NETWORK 2021 2.83 millions of euros 1.37 in 2020
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NETWORK OF NATURAL PROTECTED AREAS IN ANDALUSIA (RENPA) 2021



It includes partial territorial overlaps between different spaces, as well as marine surface.

Over a same territory can concur two or more protection figures.

The surface in these protection figures includes the protection zones where applicable.

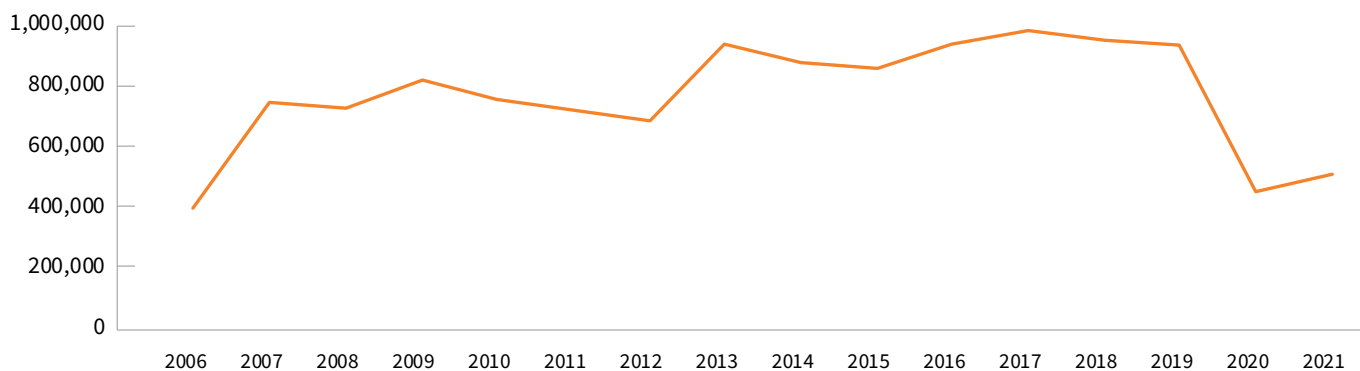
* Includes the total area of the RBIM (907,185 ha Morocco + Andalusia). In the overlap areas, it is counted only once.

Natura 2000 Network	No.	Surface (ha)
Sites of Community Importance (SIC)	190	2,608,368.4
Special Areas of Conservation (SCA)	176	2,559,075.4
Special Protection Areas for Birds (SPAB)	63	1,665,310.4

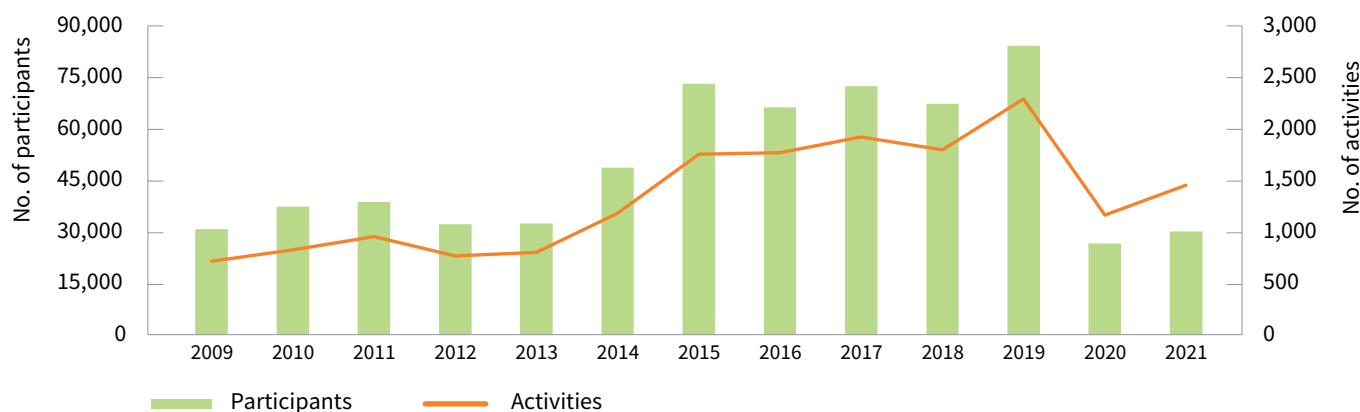
Protection figures	No.	Surface (ha)
National Park	3	244,132.0
Natural Park	24	1,440,075.5
Protected Landscape	2	19,663.6
Natural Site	32	91,446.3
Periurban Park	21	6,020.1
Natural Monument	59	1,556.4
Natural Reserve	28	21,806.6
Concerted Nature Reserve	5	804.2

Areas protected by international instruments	No.	Surface (ha)
Biosphere Reserve	9	2,052,102.0*
World Heritage	1	54,251.7
Geopark	3	259,044.5
RAMSAR wetland	25	143,138.8
Specially Protected Areas of Importance for the Mediterranean (ZEPIM)	4	84,132.0
Intercontinental Mediterranean Biosphere Reserve (RBIM)	1	907,185.0

NUMBER OF VISITS TO RECEPTION FACILITIES



PARTICIPATION IN THE PROGRAM OF VISITS TO NATURAL SPACES



FACILITIES FOR PUBLIC USE OFFERED BY THE REGIONAL MINISTRY 2021

Province	Number
Almeria	102
Cadiz	156
Cordoba	77
Granada	222
Huelva	134
Jaen	218
Malaga	99
Seville	56
Andalusia	1,064

LIVESTOCK TRAILS BY PROVINCE

Province	Number of trails	Length (km)
Almeria	547	3,278
Cadiz	742	4,577
Cordoba	733	5,219
Granada	642	3,698
Huelva	314	2,348
Jaen	761	5,167
Malaga	458	2,421
Seville	917	6,019
Andalusia	5,114	32,728

Last update: 2019.



FOREST AND NATURAL SURFACES¹

43,953 km²

50.2% of the regional surface

PUBLIC MOUNTAINS 2021

1,441 mountains

1,265,126 ha

DAMAGED TREES IN SAMPLED PLOTS² 2021 [2]

22.3% defoliation in hardwoods
2020 **23.7%**

13.1% defoliation in conifers
2020 **14.5%**

GAME SPECIES CAPTURED

37,883 deer individuals

394,577 red kite individuals

1,017,037 wild rabbit individuals

FOREST FIRES 2021

553 forest losses

178 fires and **375** outbreaks

12,583.3 ha affected

59.4% area of scrubland and **40.6%** area of woodland

FORESTRY ACTIVITIES 2021

25 projects processed

40.1 millions of euros invested

NETWORK OF FOREST NURSERIES 2021

870,000 plants produced

¹ Information taken from the cartographic database of the SIOSE-Andalusia project (Land Use Information System of Spain) updated in 2016 (methodological adjustment in 2021).

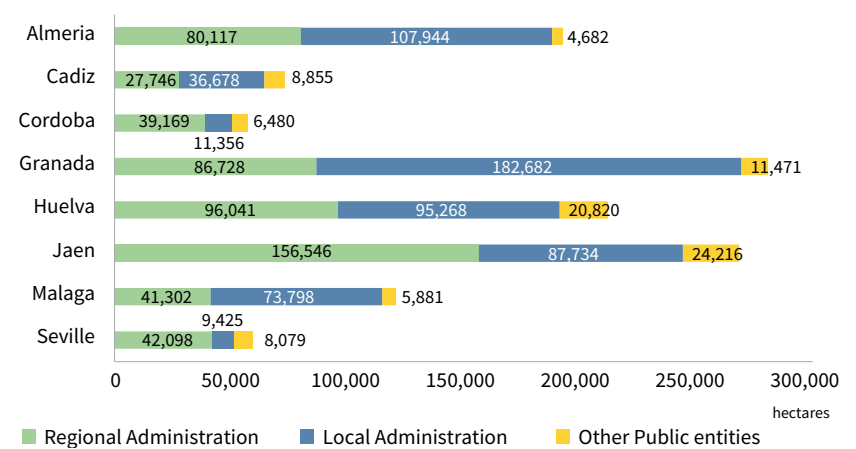
² Damaged trees are those that exceed 25% defoliation, including feet dead and missing.

In 2021, the state of the forests remained stable, similar to that of the previous year, with no significant changes in the degree of defoliation of the woodland, although different trends were observed depending on the species, as the incident rate in leafed trees continued to increase moderately, while in conifers it decreased.

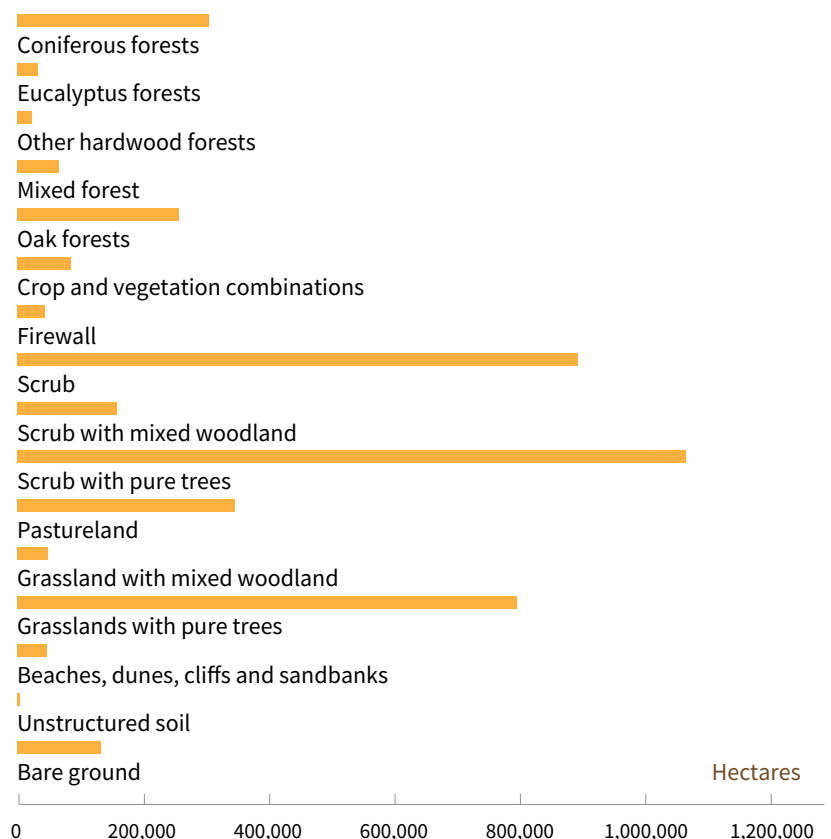
Negative aspects include a fall in the number of captures of the main game species. Nevertheless, for yet another year, the main player in the forest areas was the impact of a huge fire in Sierra Bermeja, responsible for the increase of the mean area per loss and the total area affected.

On the other hand, a significant increase was recorded in investment in forestry activities.

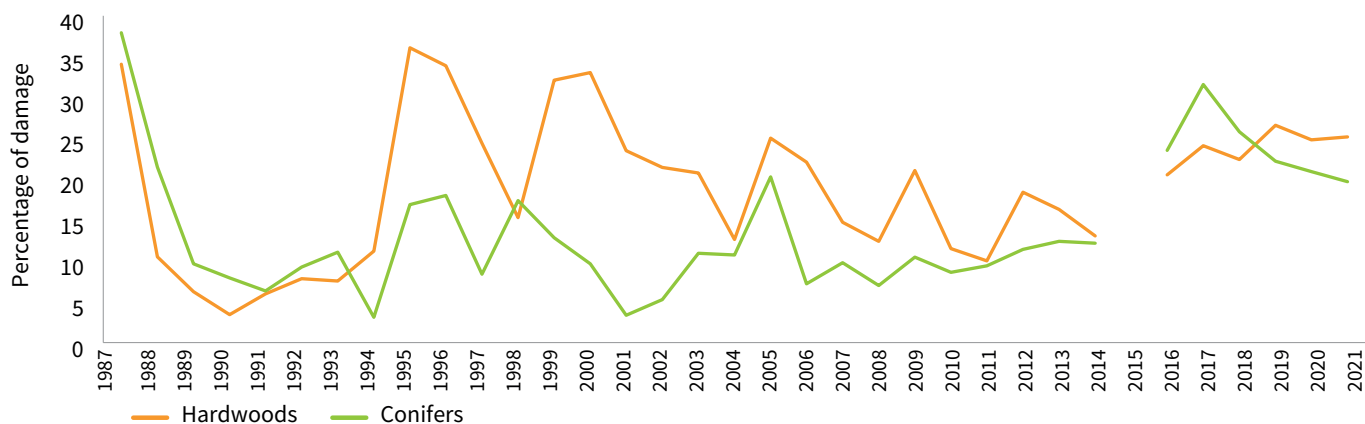
MOUNTAINS IN ANDALUSIA OF PUBLIC OWNERSHIP 2021



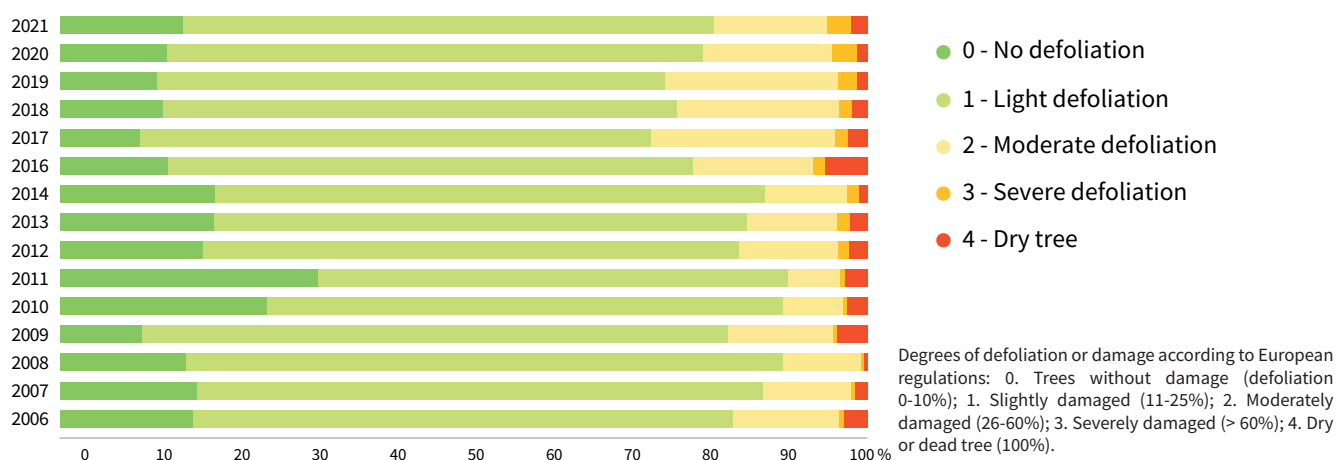
FOREST AND NATURAL SURFACES, SIOSE 2016



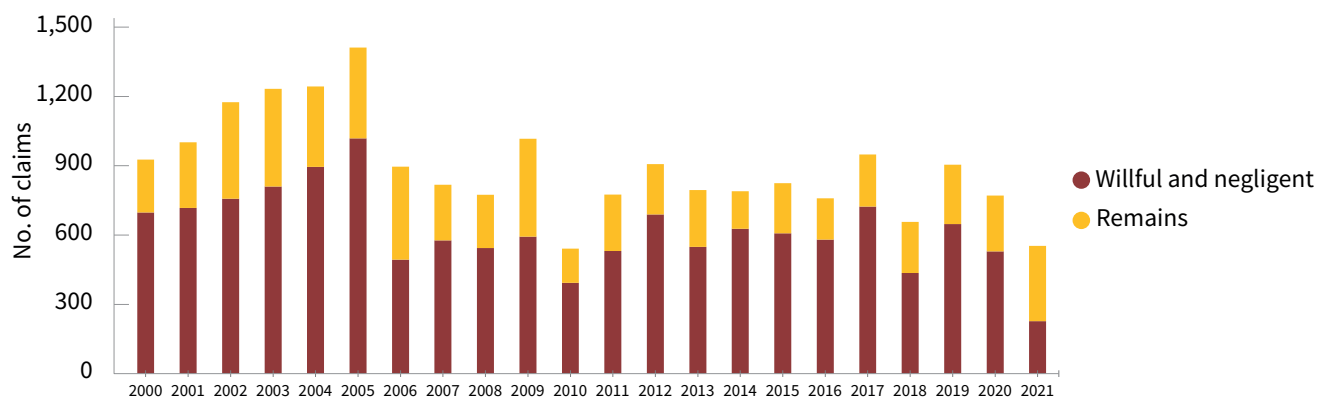
PHYTOSANITARY STATUS OF THE FORESTS. PERCENTAGE OF DAMAGED TREES ACCORDING TO GROUPS OF SPECIES [2]



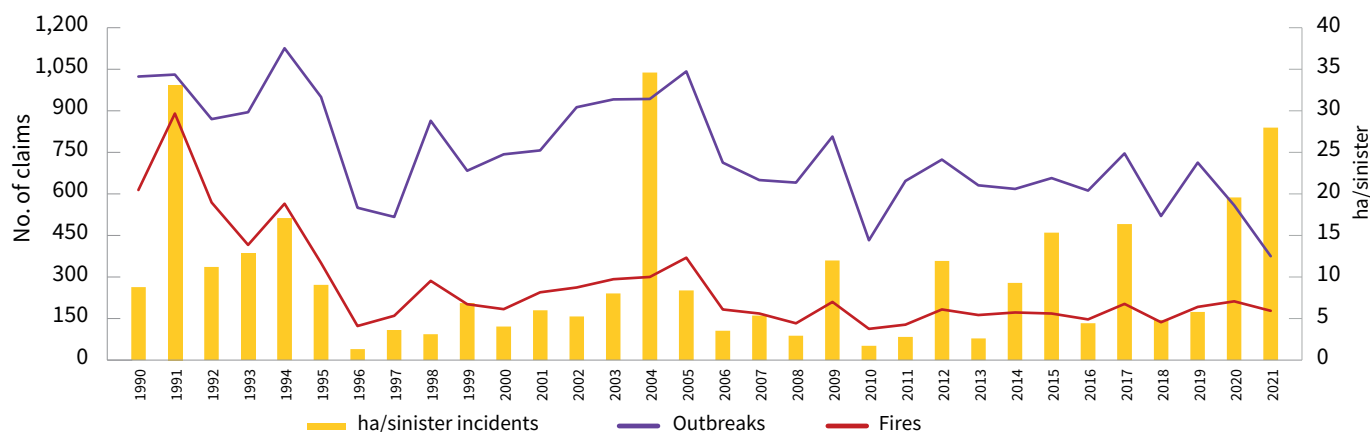
PHYTOSANITARY STATUS OF THE FORESTS. PERCENTAGE OF DAMAGED TREES BY CLASS [2]



NUMBER OF CLAIMS PER CAUSE



AVERAGE AREA AFFECTED AND NUMBER OF CLAIMS



Air quality continued improving in 2021, predictably, due to the maintenance of the measures to reduce activity and mobility applied to prevent Covid-19 and due to favourable atmospheric conditions, particularly affecting the indicators most linked to risks to health.

Nevertheless, at some control points, the limits for sulphur dioxide (Huelva Industrial Zone) and nitrogen dioxide (Bay of Algeciras Industrial Zone) were exceeded on occasion. The high level of tropospheric ozone was also of note. This characteristic is shared with the other regions in the south of Europe subject to high solar radiation, although the figures were lower than in 2020.



AIR QUALITY INDEX

97% days with admissible situation

AIR QUALITY AND HEALTH

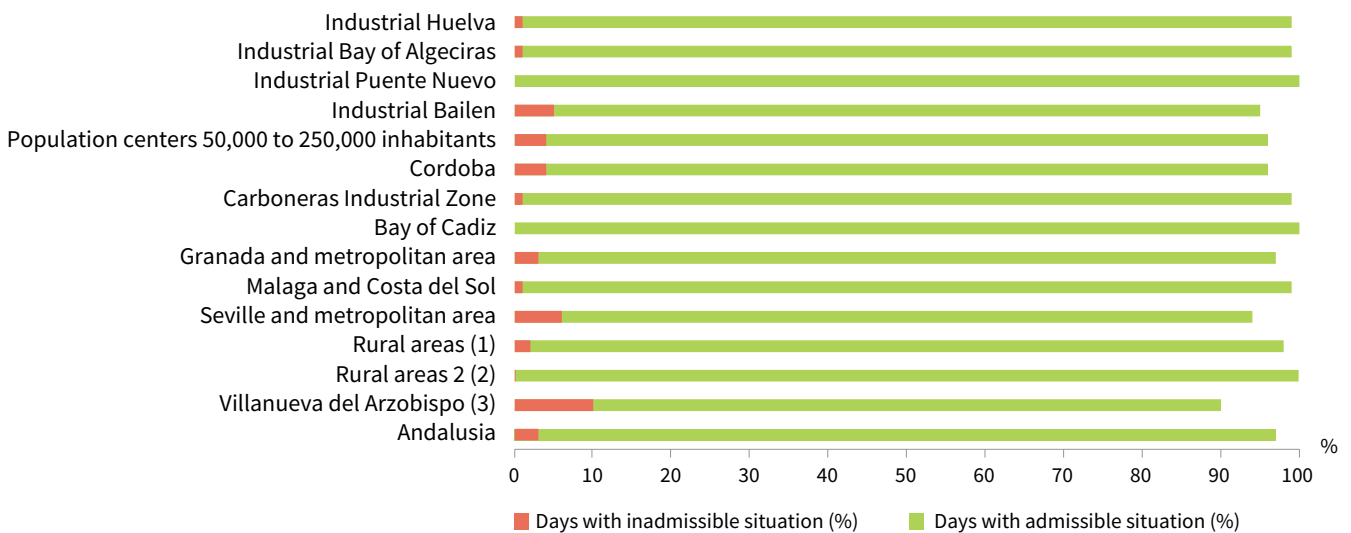
PM₁₀¹ 22 µg/m³

AVERAGE ANNUAL OZONE CONCENTRATION INDEX (SOMO 35)² 6,398 µg/m³

¹ Population-weighted annual average concentration of particulate matter in bottom stations in urban agglomerations. The legal limit is met (40 µg/m³); OMS recommendation is exceeded (20 µg/m³).

² The OMS defined the mean concentration index annual ozone to assess the exposure of the population to ozone, based on the maximum threshold of concentration - 70 micrograms of ozone per m³ (35 parts per billion)-.

AIR QUALITY INDEX BY ZONE 2021

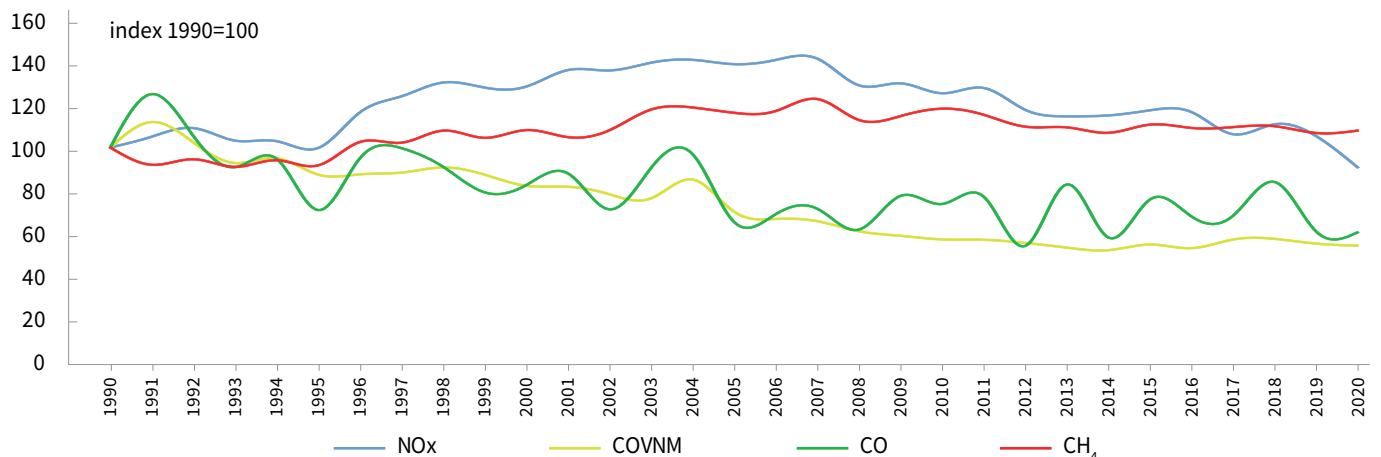


(1) Rural areas. In this area only SO₂, NO₂ and O₃ is evaluated .

(2) Rural areas 2 (municipalities of rural areas less Villanueva del Arzobispo). In this area only evaluates PM₁₀ and CO.

(3) Villanueva del Arzobispo. In this zone only PM₁₀ and CO are evaluated.

EMISSIONS OF TROPOSPHERIC OZONE PRECURSOR GASES [2]



Circular economy: something more than waste

In 2020, the decrease in the generation of municipal waste was positive, both the total and per inhabitant; however, a lower level of recovery or recycling was recorded together with a reduction in the capacity for selective waste collection, affecting paper-cardboard and glass, although the volume of light packaging increased.

The basic records for hazardous waste worsened, as the total production increased and by unit of the GDP. That is to say, economic growth was more dependent on the production of this type of waste.

It is worth mentioning the approval in April 2021 of the Integrated Waste Management Plan of Andalusia. Towards a Circular Economy on the Horizon 2030 (PIRec 2030).

TOTAL MUNICIPAL WASTE WITHDRAWAL 2020

4,645.0 thousand of tonnes
1.5 kg inhabitant /day

DECLARED GENERATION OF HAZARDOUS WASTE 2020

307.3 thousand of tonnes
0.5% more than in 2019

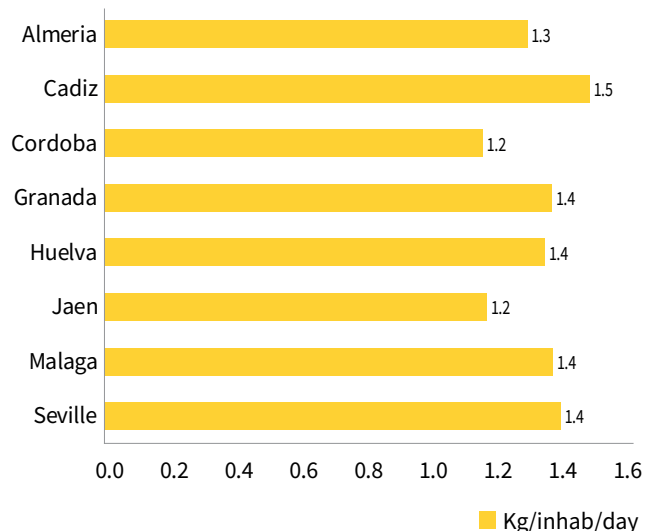
TREATMENT OF MUNICIPAL WASTE 2020



CONTAINERS FOR SEPARATE REMOVAL OF MUNICIPAL WASTE 2020

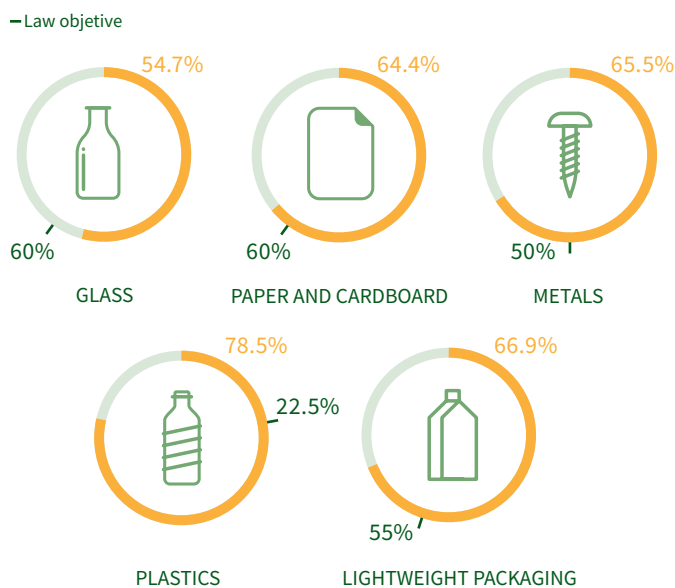


GENERATION OF MUNICIPAL WASTE 2020

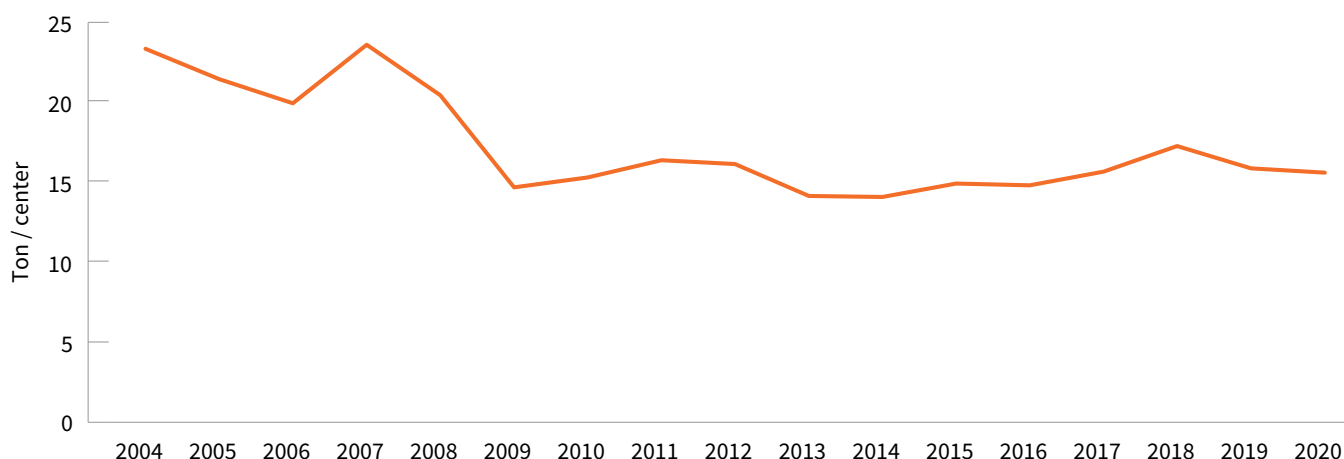


Collection waste is not included separate, only the mixed.

PACKAGING RECYCLING RATE 2020



DECLARED GENERATION OF HAZARDOUS WASTE



The environmental impact of energy

PRIMARY ENERGY 2020 [8]

Consumption **16,239 ktep**

19,124 ktep in 2019

Consumption from renewable sources

3,588.7 ktep

Renewable energy penetration

22.1%

19.5% en 2019

Degree of self-sufficiency **21.8%**

Consumption per capita: **1.9** tep/inhabitant

FINAL ENERGY 2020 [8]

Consumption **11,774.6** ktep

Renewable consumption: **844.5** ktep

Consumption per capita: **1.4** tep/inhabitant

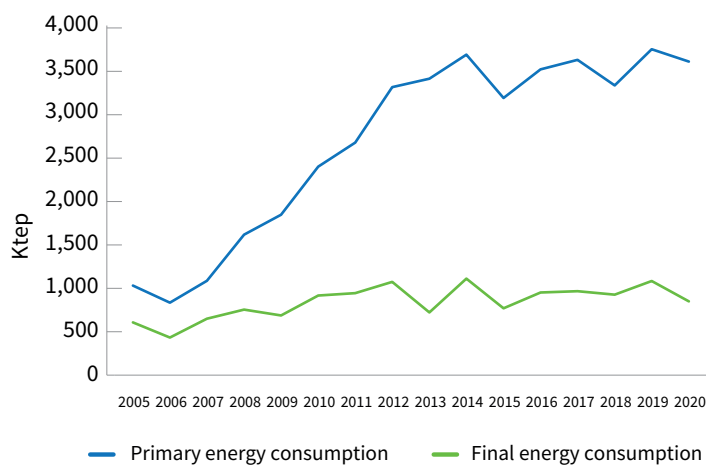
INSTALLED RENEWABLE ELECTRICAL POWER IN 2021 [8]

8,940.8 MW, un **46.1%** of the total electrical power

2020 was characterised by the fall in the demand for energy, caused by the limitation imposed on activity and travel during the fight against Covid-19, which resulted in a significant reduction in consumption in the transport and industrial sectors, and an increase in the domestic sector.

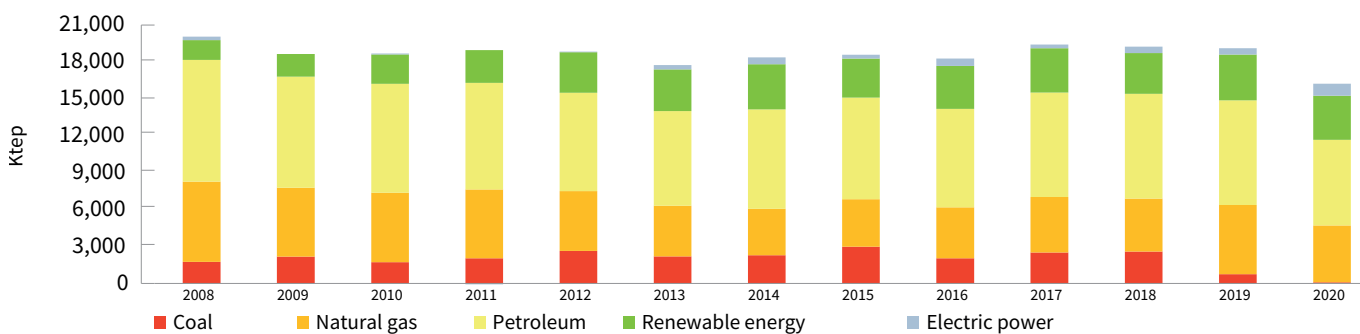
The reduction had a greater impact on non-renewable energies: oil products, natural gas and, in particular, coal, than on renewables. This directly resulted in the improvement in the penetration percentage of renewables and, consequently, a higher level of self-supply and a lower level of emissions.

PRIMARY AND FINAL ENERGY CONSUMPTION FROM RENEWABLE SOURCES [8]



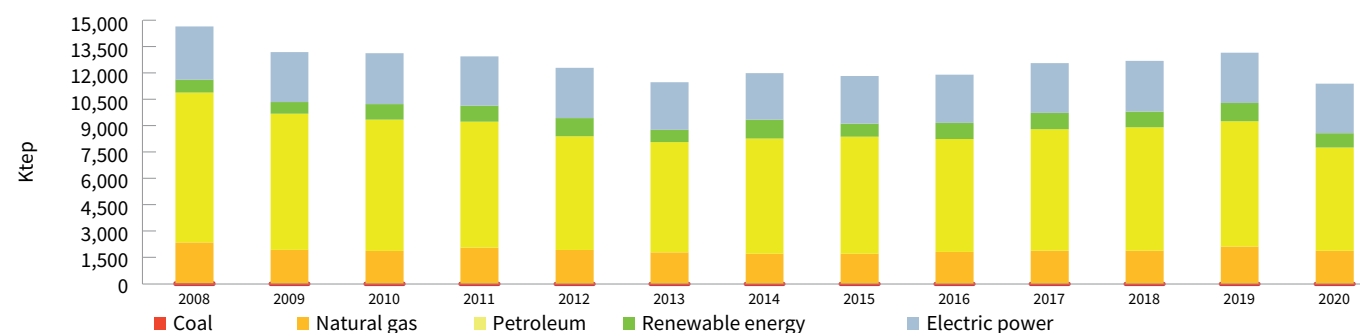
ktep: Thousands of tonnes of crudeoil equivalent.

PRIMARY ENERGY CONSUMPTION BY SOURCE [8]



ktep: Thousands of tonnes of crudeoil equivalent.

FINAL ENERGY CONSUMPTION BY SOURCE [8]



ktep: Thousands of tonnes of crudeoil equivalent.

EMISSION 2020 ^{[2][3]}

EMISSION OF CO₂ PER INHABITANT

2.5 t/inhab in cities

5.8 t/inhab in intermediate density areas

6.1 t/inhab in rural areas

EMISSION OF CO₂

28.5% emitted in cities

54.9% emitted in intermediate density areas

16.7% emitted in rural areas

MUNICIPAL WASTE COLLECTION 2020

4,567,440 tonnes

49.6% collected in cities

39.1% collected in intermediate density areas

11.3% collected in intermediate density areas

540 kilograms per inhabitant

551 kg/inhab in cities

529 kg/inhab in intermediate density areas

529 kg/inhab rural areas

ELECTRICAL ENERGY CONSUMPTION 2019 ^[3]

34 millions of megawatts/hour¹

41.8% in cities

45.8% in intermediate density areas

12.4% in rural areas

¹ Information from Carbon footprint of Andalusian municipalities application.

SOIL SEALING IN ANDALUSIA (SIOSE 2016)

4.5% of the total surface

15.6% in cities (2.2 ha/inhab)

5.4% in intermediate density areas (5.6 ha/inhab)

2.4% in rural areas (11.5 ha/inhab)

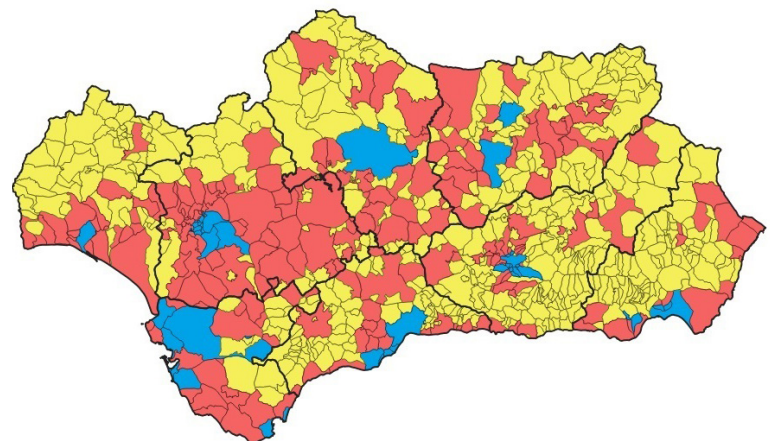
A study has been made involving the analysis of the environmental situation of the Andalusian towns according to their degree of urbanisation. The study uses the classification published by the Institute of Statistics and Cartography of Andalusia, in which the region is divided into three categories: densely populated cities or zones, zones with an intermediate density and rural zones (scarcely populated).

The indicators used include emissions, waste, electricity consumption and artificial surfaces.

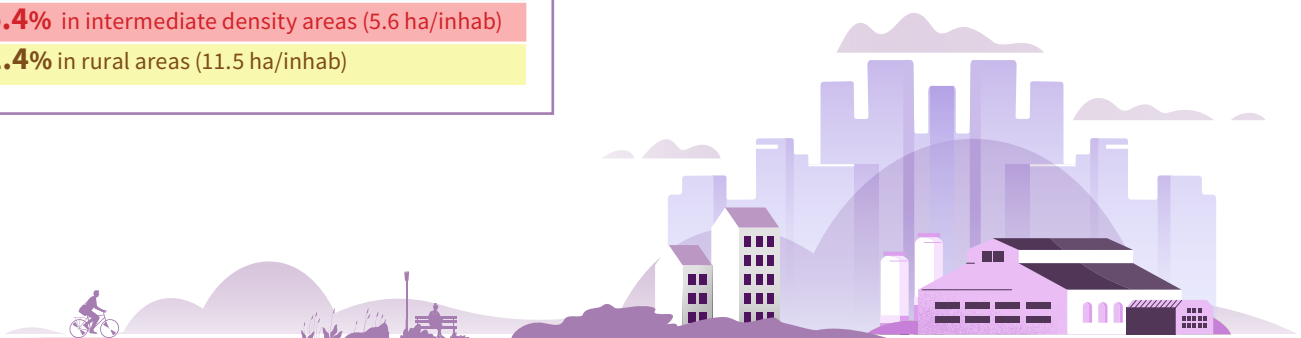
TPOLOGY OF MUNICIPALITIES ACCORDING TO THEIR DEGREE OF URBANISATION ^[3]

	No. municipalities (2020)	% surface (2019)	% population (2021)
Cities	45	6.7	48.4
Intermediate density areas	208	39.1	40.0
Rural areas	532	54.2	11.6
Andalusia	785	100.0	100.0

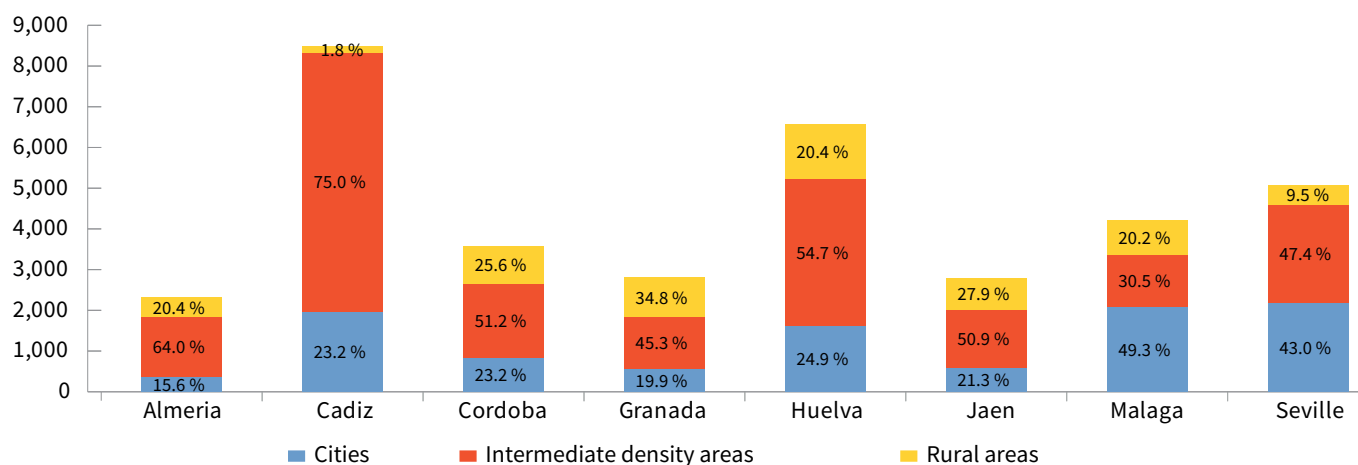
MUNICIPALITIES OF ANDALUSIA ACCORDING TO THEIR DEGREE OF URBANISATION 2020^[3]



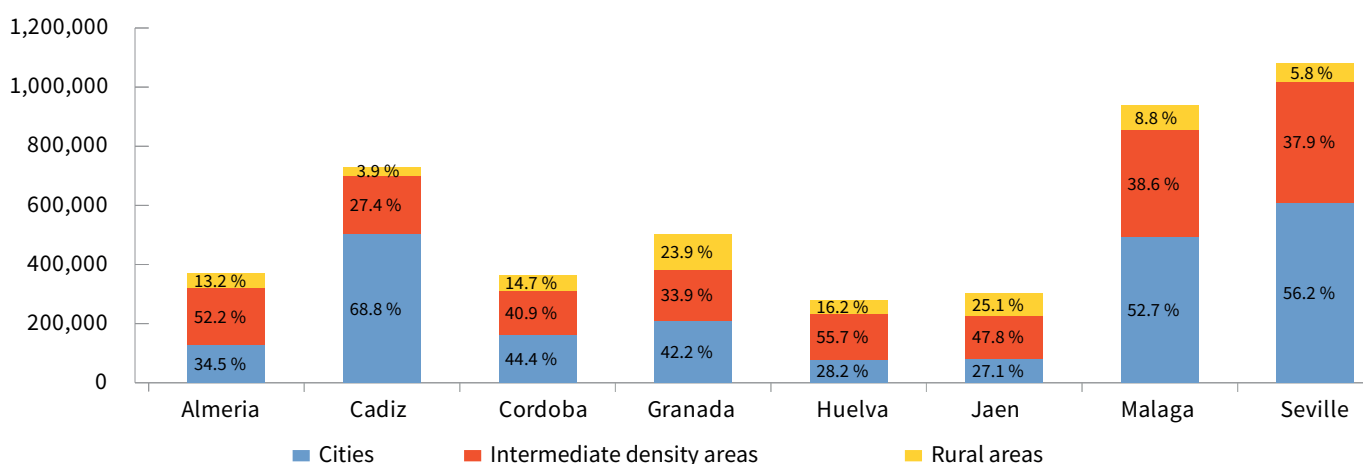
● Cities ● Intermediate density areas ● Rural zones



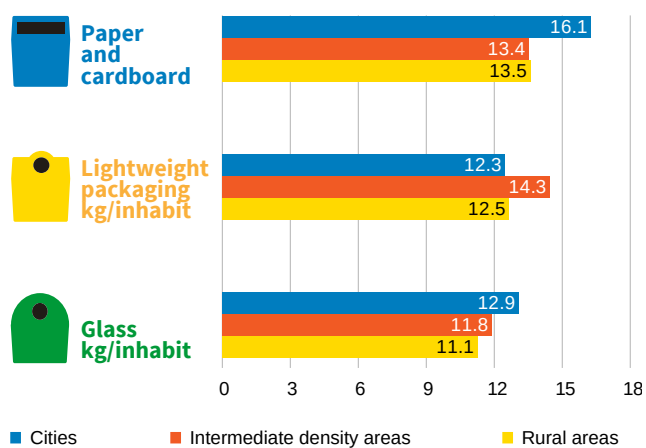
KILOTONNES OF CO₂ EMITTED INTO THE ATMOSPHERE 2020



TONNES OF MUNICIPAL WASTE COLLECTION 2020



SELECTIVE COLLECTION OF MUNICIPAL WASTE (KG/INHABIT)



Economic activity and environment

Related to primary sector, agricultural activity is decisive for the establishment of a model of sustainable development with a low environmental impact. In 2021, the area used for integrated farming got slightly better, by 0.9%, while organic farming had the highest increase, 24% with respect to 2020. Aquaculture remained in a worse situation in 2020, with figures for production and value falling from 33.5% and 27.2% respectively, with respect to 2019.

Environmental control of the economic activity improved thanks to the significant increase in the processing of AAI (Integrated Environmental Authorisation) for agrifood industries and farms, while the processing of AAU (Unified Environmental Authorisation) decreased.

Tourism began to recover after Covid-19, although not reaching the previous records, with increases in the total number of tourists received and in the number of travellers staying in rural tourism establishments.

ANDALUSIA NATURAL PARK BRAND 2021

135 companies

1,430 services

AREA OF INTEGRATED AGRICULTURE 2021 [5]

524,230 ha

AREA OF ECOLOGICAL AGRICULTURE 2021 [5]

1,369,758 ha

AQUACULTURE 2020 [5]

6,724 tonnes

53,165,000 euros

INDUSTRY AND ENVIRONMENTAL QUALITY 2021

AAI¹ resolved files: **133**

AAU² resolved files: **224**

¹ Integrated environmental authorizations.

² Unified environmental authorizations.

TOURISM 2021[3]

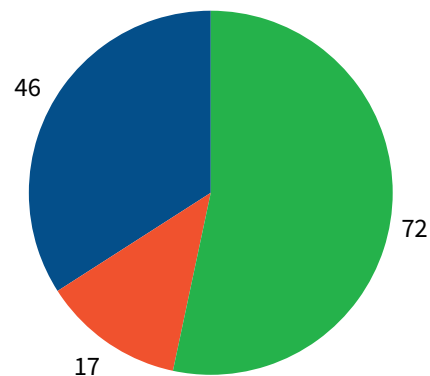
No. of tourists who visited Andalusia: **20,112,157**

No. of travelers in rural tourism accommodation: **287,324**

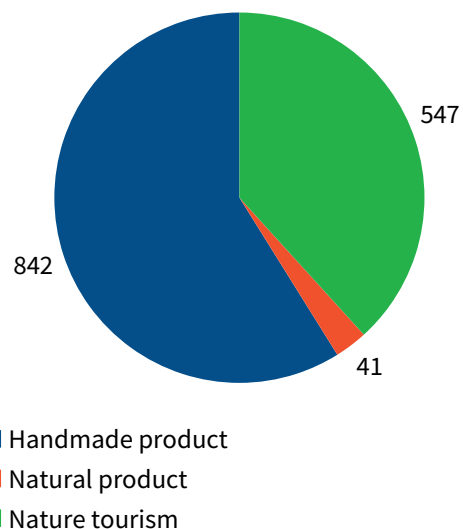
Provisional dates.

NATURAL PARK BRAND 2021

No. of companies 2021



No. of products or services 2021



- Handmade product
- Natural product
- Nature tourism

SUSTAINABLE BUSINESS ADVICE FOR NATURAL PROTECTED AREAS IN ANDALUSIA - AESENA 2021

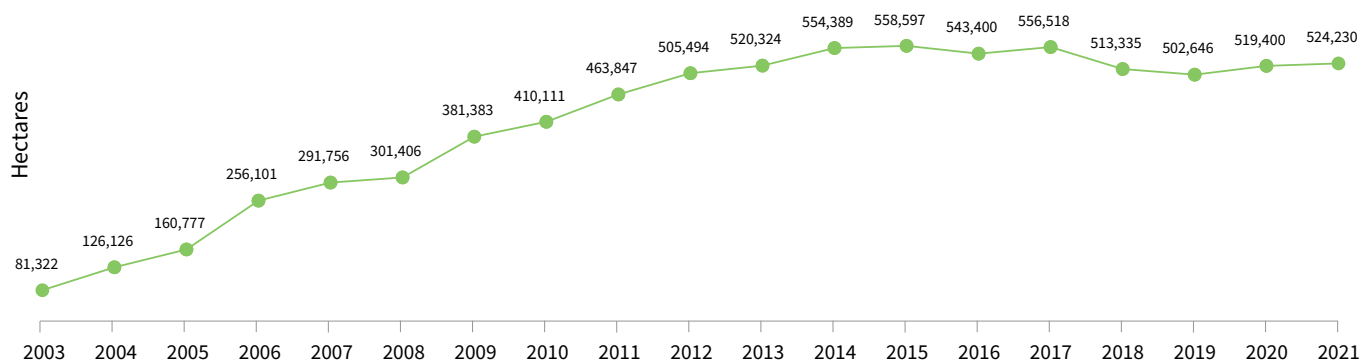
101 about the business model

87 about Andalusian Natural Park Brand

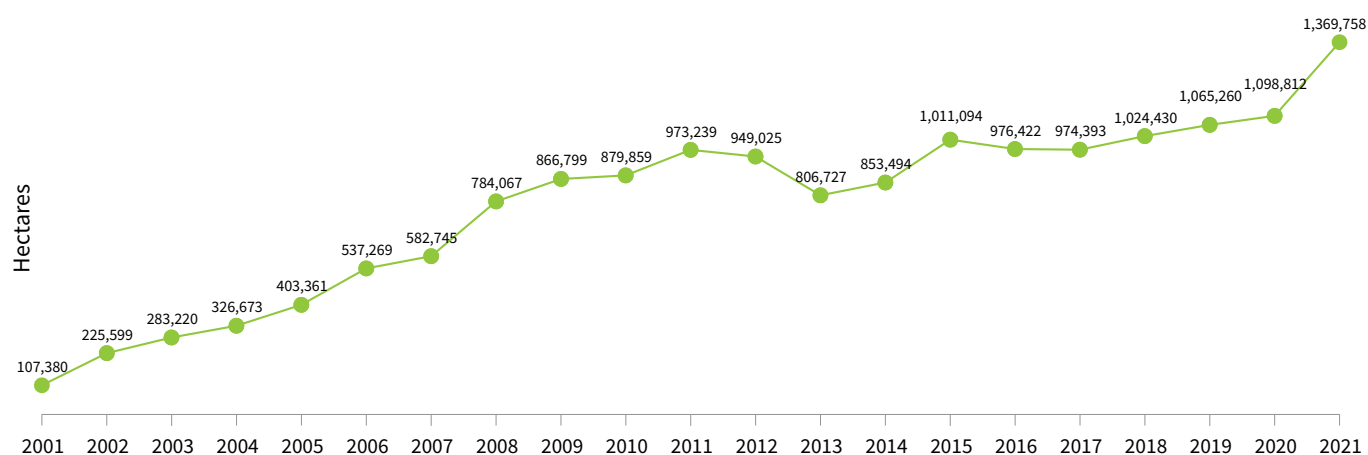
82 for carrying out an environmental diagnosis

Total **270** Advices

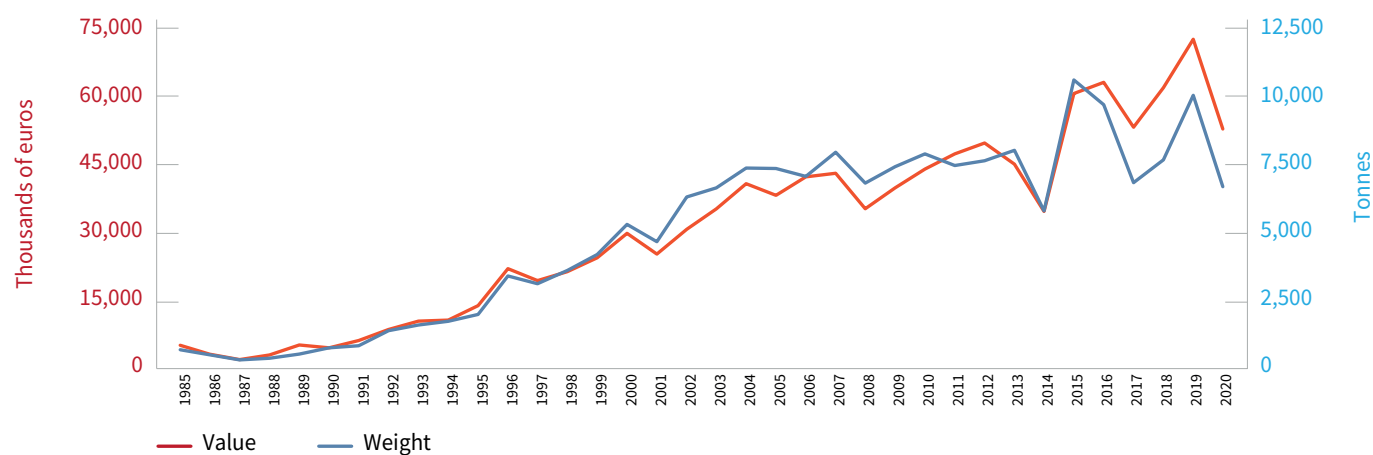
INTEGRATED AGRICULTURE [5]



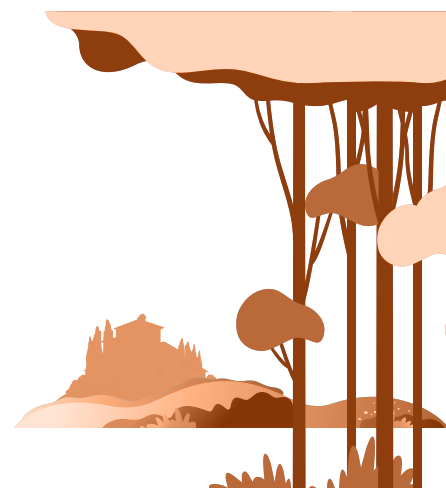
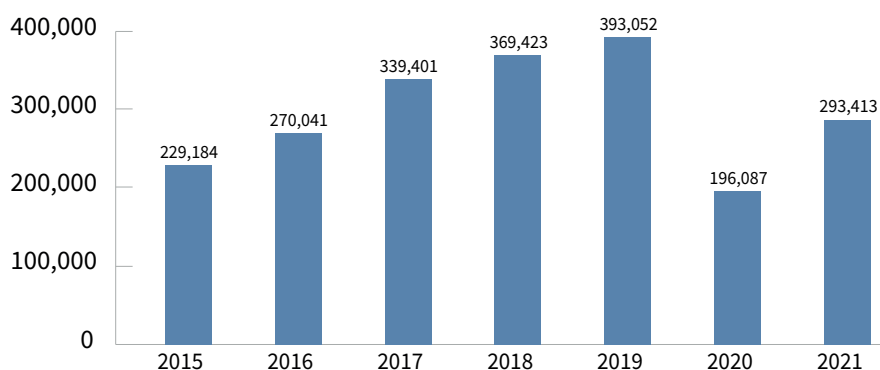
ECOLOGICAL AGRICULTURE [5]



COMMERCIALIZED PRODUCTION OF MARINE AQUACULTURE [5]



EVOLUTION OF NUMBER OF TRAVELERS IN RURAL TOURISM ACCOMMODATION [3]



Improving access to environmental information

TOTAL UNIQUE USERS 2021

1,307,256 on the environmental web

REQUEST FOR ENVIRONMENTAL INFORMATION 2021

317 requests received and attended

OFFER OF SERVICES IN THE CHANNEL OF THE REDIAM 2021

4,640 facts sheets published

2,750 consultation and download services of information

2,322 contents of the download area new or updated

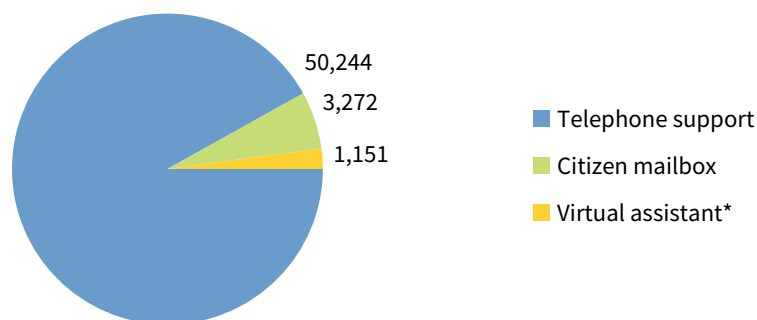
INTEGRATED CARE SERVICE CITIZEN (SIAC) 2021

54,667 consultations attended

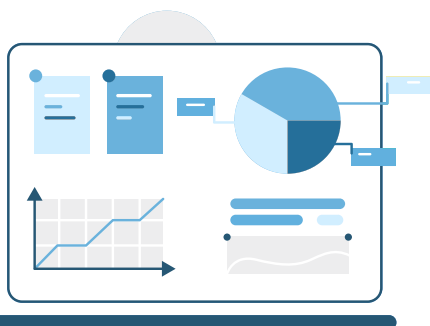
In 2021, a significant decrease was registered in the number of users of the Ministry's Environmental Information Portal, which incorporated the Web and the Rediam channel in June. The growth in the number of services offered, including information sheets, content and downloads was maintained, but the number of enquiries made and dealt with at the Public Information Service also fell.

However, the requests for environmental information increased. In particular there were two types of applicants: the general public and professionals and enterprises.

SIAC. CONSULTATIONS ATTENDED 2021



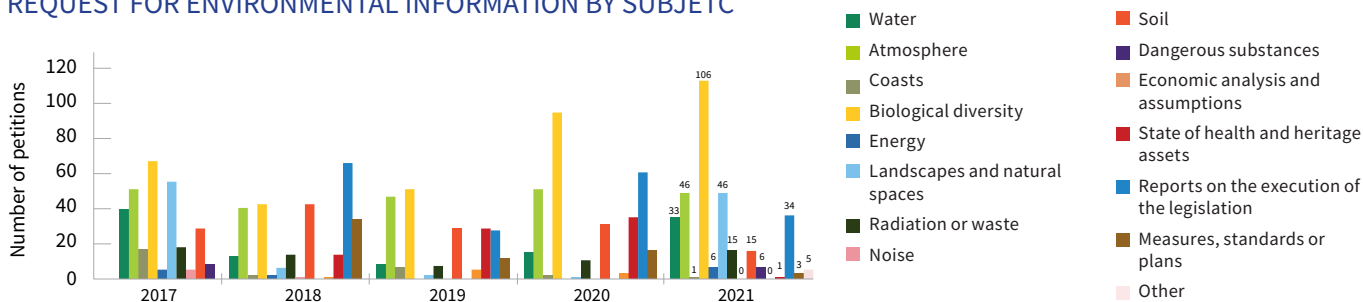
*Consultations answered until September 2021.



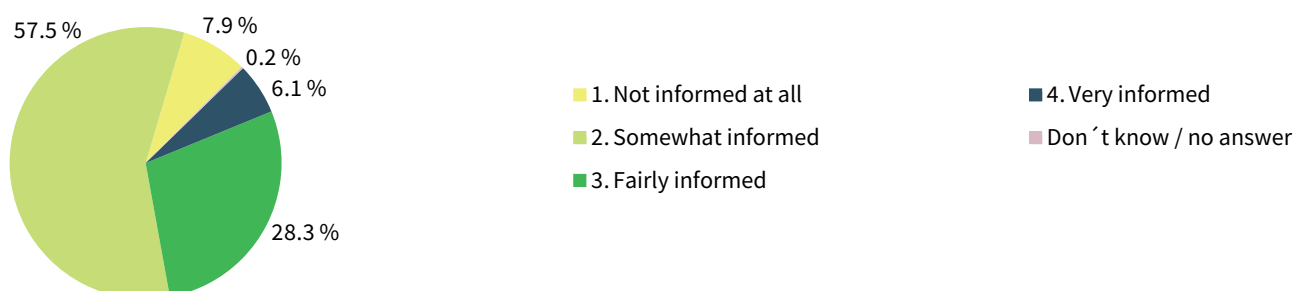
EVOLUTION OF THE USE OF THE ENVIRONMENTAL WEB

Year	Total unique users	Sessions	Pages per session	Average session duration
2017	1,801,882	3,230,692	2.94	00:02:54
2018	1,687,885	2,900,636	3.04	00:03:00
2019	1,749,813	2,900,862	2.85	00:02:56
2020	2,085,130	3,332,130	2.75	00:02:49
2021	1,307,256	2,094,978	2.73	00:02:46

REQUEST FOR ENVIRONMENTAL INFORMATION BY SUBJECT



LEVEL OF INFORMATION ON ENVIRONMENTAL ISSUES. ECOBAROMETER 2021



Training, participation and environmental awareness

CAZORLA TRAINING CENTER AND FORESTRY EXPERIMENTATION 2021

871 participants

VOCATIONAL TRAINING FOR EMPLOYMENT WITH ENVIRONMENTAL CONTENT 2021 [9]

54 training actions distributed among **24** different specialities

1,673 participants

PARTICIPATION AND ENVIRONMENTAL AWARENESS PROGRAM 2021

6,751 participants

The easing of the Covid-19 control measures permitted some of the training activities developed by the Regional Government of Andalusia to be resumed. This was reflected in an increase in the number of students, both at the Cazorla Forestry Experimentation and Training Centre, and at Professional Training Centres. Along the same lines, awareness activities were promoted in natural spaces included in the Natura 2000 Network through the Environmental Awareness and Participation Programme.

In 2021, a new Ecobarometer campaign was set up. This is an instrument for analysing the perception, behaviour and attitudes of the general public with respect to the environment and its evolution over time.

TRAINING ACTIONS CARRIED OUT AT THE CAZORLA TRAINING CENTER 2021

Type of course	Courses	Teachers	Women students	Men students	Hours of lectures
Training actions	31	110	193	407	791
Forest and natural environmental management	1	10	9	46	2,000
Other courses promoted by different organizations and entities	9	41	61	155	170
Total	41	161	263	608	2,961

PARTICIPATION AND ENVIRONMENTAL AWARENESS PROGRAM 2021



6,751 participants



Participation and environmental dissemination actions
2,457 (47.2% men and 52.8% women)



Thematic days of environmental awareness:
1,281 (47.9% men and 52.1% women)



Awareness actions:
3,013 (47.3% men and 52.7% women)

MAIN ENVIRONMENTAL PROBLEMS IN ANDALUSIA. ECOBAROMETER 2021

Main environmental problems	Men	Women	Total
Deterioration of beaches and seas	31.5%	33.2%	32.3%
Lack of water	31.6%	32.7%	32.2%
Air quality and pollution	30.0%	33.0%	31.6%
Forest fires	19.5%	21.2%	20.4%
Soil erosion and desertification	20.6%	17.6%	19.0%
Deterioration of rivers, wetlands and groundwater	17.4%	16.6%	17.0%
Loss of landscape and natural landscapes	13.8%	12.7%	13.2%
Disappearance of animals and plant species	11.7%	11.2%	11.4%
Invasive species	5.0%	3.6%	4.3%
Others	2.4%	2.5%	2.4%
Total number	1,475	1,544	3,019

Question 21: Thinking about our Autonomous Community. Could you tell me the two most important related to the environment that in your opinion Andalusia has today? (Two options without order of priority).
The percentages are calculated on the total.

Planning and strategic environmental assessment

In 2021, the updating of the strategic planning was completed in two crucial areas for defining environmental policy in the medium and long-term: climate change and circular economy.

The two strategic plans approved, the Andalusian Plan of Action for the Climate (PAAC) and the Integrated Waste Management Plan of Andalusia. Towards a Circular Economy on the Horizon 2030 (PIRec 2030) establish the network of environmental planning and transfers the national and European directives and the commitments signed in international agreements to the Andalusian regional area of competence.

It was also an important year for strategic environmental assessment (SEA), as new ideas were explored for triggering processes of use for environmental improvement, the construction of human equipments and knowledge management.

ANDALUSIAN PLAN OF ACTION FOR THE CLIMATE	INTEGRATED WASTE MANAGEMENT PLAN OF ANDALUSIA. PIRec 2030	PLANS WITH OPEN PROCEDURE OF SEA IN 2021
3 Programs: Mitigation and Energy Transition; Adaptation; Communication 6 strategic objectives 12 sector objectives 137 lines of action Budget: 1,783 millions of euros	3 Action programs: Prevention; Management; Awareness, sensitization and communication 68 specific objectives 160 action measures Budget: 447.6 millions of euros	24 plans <hr/> COMPLETED STRATEGIC ENVIRONMENTAL ASSESSMENT IN 2021 13 plans

STRATEGIC ENVIRONMENTAL PLANS CURRENT AND UNDER DEVELOPMENT

HORIZONTAL PLANS	BIODIVERSITY AND NATURAL ENVIRONMENT	WATER	WASTE AND POLLUTION	CLIMATE AND ENERGY	ENVIRONMENTAL SECTOR EMPLOYMENT
Environment Plan of Andalusia 2030 (in preparation)	Andalusian Forest Plan Horizon 2030 (in preparation)	Tinto, Odiel and Piedras Hydrological Plan 2022-2027 (approved in 2023)	Andalusian Air Quality Strategy (approved in 2020)	Andalusian Climate Action Plan 2030 (2021-2030)	Strategy for the Generation of Environmental Employment in Andalusia 2030 (2018-2030)
Andalusian Strategy for Sustainable Development 2030 (2018-2030)	Andalusian Strategy for Integrated Management of Biodiversity, 2011-2020 (under review)	Guadalete and Barbate Hydrological Plan 2022-2027 (approved in 2023)	Integrated Waste Management Plan of Andalusia. Towards a Circular Economy in Horizon 2030 (2021-2030)	Energy Strategy of Andalusia 2030 (2022-2030)	
	Andalusian Strategy for Integrated Geodiversity Management, 2010-2018 (under review)	Hydrological Plan for the Mediterranean Basins 2022-2027 (approved in 2023)			
	Master Plan for the Improvement of Ecological Connectivity in Andalusia, a green infrastructure strategy (approved in 2018)	Flood Risk Management Plans (in preparation 2022-2027)			
	Andalusian Hunting Plan 2032 (in development)				

Environmental indicators

The environmental indicators give a highly aggregated view to enable monitoring of the most significant aspects of the environment in Andalusia. The list below consists of a selection taken from environmental indicators system of the Environmental Information Network of Andalusia, which was also published in the 2022 Andalusia Environment Report.

TOPIC	INDICATOR	EVOLUTION	STATUS	TREND
Climate	Normalized different vegetation index	●	●	●
	Moisture Index	●	●	●
	Vegetation global water stress	●	●	●
	Mean, maximum and cumulative vegetation index	●	●	●
Climate change	Thermal anomalies and global warming rate	●	●	●
	Ozone layer thickness	●	●	●
	Ultraviolet Index (UVI)	●	●	●
	Emissions of greenhouse gases	●	●	●
	Emissions trading scheme (RCDE)	●	●	●
Soil and land use	Erosivity of rain and soil losses	●	●	●
Water	Available water resources	●	●	●
	Sanitation and purification of waste water	●	●	●
	Surface water quality	●	●	●
	Groundwater quality	●	●	●
Coastline and blue economy	Concessions of occupation of the Maritime Terrestrial Public Domain	●	●	●
	Authorizations for use or occupation in the Maritime Terrestrial Public Domain	●	●	●
	Authorizations for use or occupation in the Protection Easement Zone	●	●	●
	Polluting load of urban effluents discharged onto the coast	●	●	●
	Industrial discharges to the coast	●	●	●
	Sanitary qualification of coastal bathing waters	●	●	●
	Sea surface temperature	●	●	●
	Chlorophyll-a concentration	●	●	●
Diffuse attenuation coefficient	●	●	●	



The environmental assessment of each indicator is made considering three aspects: the evolution, the status and the trend.

1. The evolution reflects to the progress of an indicator over time.
2. The estatus refers to an indicator's current state.
3. The trend expresses the estimated future progress of an indicator based on policies, strategies, guidelines and plans which will affect it as well as the general context.

Each one of these aspects is represented by the following symbols:

- Positive / Good result / Favourable
- Intermediate / Acceptable result / Stabilized
- Negative / Bad result / Unfavorable

TOPIC	INDICATOR	EVOLUTION	STATUS	TREND
Biodiversity	Inclusion of wild flora in botanical gardens	●	●	●
	Germplasm collection at the Plant Propagation Laboratory	●	●	●
	Fauna recorded in Andalusia	●	●	●
	Conservation of necrophagous birds	●	●	●
	Income of animals in the CREAs	●	●	●
Natural Protected Areas	Protected area in Andalusia	●	●	●
	Equipment for public use and citizen participation in RENPA	●	●	●
Forest spaces	Forest fires	●	●	●
	Phytosanitary status of forest masses	●	●	●
	Investments in forest actions	●	●	●
Air quality	Air quality index by zones	●	●	●
	Average annual concentration index of particles less than 10 microns	●	●	●
	Average annual ozone concentration index	●	●	●
	Emissions of acidifying and eutrophying gases	●	●	●
	Emissions of tropospheric ozone precursor gases	●	●	●
Circular economy	Municipal waste production	●	●	●
	Municipal waste treatment	●	●	●
	Selective collection and recycling	●	●	●
	Hazardous waste production	●	●	●
Energy	Primary energy consumption	●	●	●
	Final energy consumption	●	●	●
	Renewable energy penetration percentage	●	●	●
Economic activity and environment	Integrated management of environmental quality	●	●	●
	Evolution of the surface in integrated production	●	●	●
	Evolution of the area of organic farming	●	●	●
Environmental information	Active dissemination of environmental information	●	●	●
	Access to environmental information	●	●	●

STRUCTURE AND ORGANIZATION

President's Decree 10/2022, of July 25 on the restructuring of the Ministry.

Decree 162/2022, of August 9, establishing the organic structure of the Ministry of Sustainable, Environmental and Blue Economy.

WATER AND COASTAL AREAS

Law 9/2010, of July 30, on Waters of Andalusia.

Decree-law 30/2020, of November 24, on measures to expedite the processing of the declaration of a drought situation in the area of the Intra-Community river basin districts of Andalusia.

Decree-law 2/2022, of March 29, which extends the urgent measures to alleviate the effects produced by the situation of exceptional drought in the Intra-Community hydrographic demarcations of Andalusia, and adopts urgent, administrative and fiscal measures, of support to the agricultural and fishing sector.

Decree 14/2005 of January 18, on the transfer of means and services by the Spanish National Government to the Andalusian Regional Government regarding hydraulic resource management.

Decree 357/2009 of October 20, which determines the Territorial limits of the Inter-Community river basins in Andalusia.

Decree 66/2011 of March 29, on the transfer of means and services by the Spanish National Government to the Andalusian Regional Government regarding Coastal Area planning and management.

Decree 109/2015 of March 17, approving the Regulations on Discharges into the Hydraulic Public Domain and the Marine-Terrestrial Public Domain of Andalusia.

Decree 477/2015 of November 17, regulating the Collegiate Bodies for Administrative and Social Participation of the Andalusian Water Administration.

Decree 178/2021, of June 15, which regulates the indicators of hydrological drought and the exceptional measures for the management of water resources in the Intra-Community Hydrographic Demarcations of Andalusia.

Agreement of October 26, 2010, of the Governing Council, declaring the hydraulic works aimed at fulfilling the objective of water quality in Andalusian to be of interest to the Autonomous Community of Andalusia.

NATURAL HERITAGE

Law 2/1989, of July 18, approving the Inventory of Protected Natural Areas of Andalusia and establishes additional protecting measures.

Law 2/1995 of June 1, modifying the Law 2/1989 of July 18, approving the Inventory of Protected Natural Areas of Andalusia and establishing additional protecting measures.

Law 3/1999 of January 11, which created the Sierra Nevada National Park.

Law 8/1999 of October 27, on the Natural Area of Doñana.

Law 8/2003 of October 28, on Wild Flora and Fauna.

Law 3/2017 of May, regulating footpaths of the Autonomous Community of Andalusia.

Law 9/2021, of July 1, declaring the Sierra de las Nieves National Park.

Decree 225/1999 of November 9, on the regulation and development of the natural monument of Andalusia protection figure.

Decree 95/2003 of April 8, on the regulation of the Network of Protected Natural Areas and their Registry.

Decree 98/2004 of March 9, creating the Inventory of Wetlands of Andalusia and the Andalusian Committee on Wetlands.

Decree 137/2006 of July 4, on the transfer of functions and services by the Spanish National Government to the National parks of Doñana and Sierra Nevada.

Decree 23/2012, of February 14, which regulates the conservation and sustainable use of wild flora and fauna and their habitats.

FOREST MANAGEMENT

Law 2/1992 of July 15, on Andalusian Forestry.

Law 5/1999 of July 29, on the forest firefighting and prevention.

Law 7/2010 of July 14, on the “Dehesa”.

Decree 247/2001 of November 13, approving forest firefighting and prevention regulation.

Decree 232/2007 of July 31, approving the Andalusian Hunting

Decree 160/2016, of October 4, which modifies the Andalusian Forest Fires Emergency Plan by Decree 371/2010, of September 14, which approves the Andalusian Forest Fires Emergency Plan and modifies the Forest Fires Prevention and Firefighting Regulations approved by Decree 247/2001, of November 13.

Decree 126/2017, of July 25, which approves the Regulations on Hunting in Andalusia.

Decree 172/2017 of October 24, which approves the master Plan for the pastures of Andalusia, creates the Monitoring Committee of same and modifies Decree 57/2011, of March 15, which regulated the Andalusian Committee for the Pasture and Decree 530/2004, of November 16, which regulates the composition, functions and regulations of the Biodiversity Council of Andalusia.

ENVIRONMENTAL QUALITY AND PREVENTION

Law 2/2007, of March 27, on the promotion of renewable energy and saving and efficiency energy in Andalusia.

Law 7/2007 of July 9, on the integrated management of environmental quality.

Law 3/2015, of December 29, on measures for Integrated management of Environmental Quality, Water, taxes and Animal Health.

Law 8/2018 of October 8, on measures to combat climate change and for the transition to a new energy model in Andalusia.

Law 1/2020 of July 13, on improving the thermal and environmental conditions of education centres in Andalusia by means of bioclimatic techniques and the use of renewable energies.

Decree-law 2/2018, of June 26, on the simplification of energy regulations and the promotion of renewable energies in Andalusia.

Decrees 31/2006, of February 14, approving the Air Quality Improvement Plan in the municipality of Bailen.

Decree 239/2011, of July 12, which regulates the quality of the atmospheric environment and creates the Registry of Air Quality Assessment Systems in Andalusia.

Decree 6/2012 of January 17, which approving the Regulation on protection against noise pollution in Andalusia, and modifying Decree 357/2010 of August 3, approving the Night Sky Quality Protection Regulations against light pollution.

Decree 7/2012 of January 17, approving the Plan for the prevention and management of hazardous waste in Andalusia 2012-2020.

Decree 73/2012 of March 20, approving the Regulation of waste of Andalusia.

Decree 231/2013 of December 3, which approving improvement plans for air quality for certain areas in Andalusia.

Decree 131/2021, of April 6, which approves the Integral Waste Plan of Andalusia. Towards a Circular Economy in 2030 Horizon.

Decree 234/2021, of October 13, approving the Andalusian Climate Action Plan.

Agreement of September 22, 2020, of the Governing Council, approving the Andalusian Air Quality Strategy.

ENVIRONMENTAL INFORMATION

Law 3/2013 of July 24, approving the Statistical and Cartographic Plan of Andalusia 2013-2017 (amended by Law 6/2017 of December 27, extending the validity of the Plan until 2020).

Law 1/2014, of June 24, on Public Transparency of Andalusia.

Decree 347/2011 of November 22, approving the structure and functioning of the Andalusian Environmental Information Network and the access to environmental information.



Directory and information sources

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SECRETARÍA GENERAL DE SOSTENIBILIDAD, MEDIO AMBIENTE Y ECONOMÍA AZUL

Dirección General de Política Forestal y Biodiversidad

Dirección General de Sostenibilidad Ambiental y Cambio Climático

Dirección General de Espacios Naturales Protegidos

SECRETARÍA GENERAL TÉCNICA

Associated entities

Fundación Doñana 21

Agencia de Medio Ambiente y Agua de Andalucía *

Agencia Pública de Puertos de Andalucía **

*Link to [Consejería de Agricultura, Pesca, Agua y Desarrollo Rural](#).

**Link to [Consejería de Fomento y Articulación del Territorio](#).

Information sources:

- Web site of Consejería:

juntadeandalucia.es/organismos/sostenibilidadmedioambienteyeconomiaazul.html

- Web site Environmental of Andalusia:

www.juntadeandalucia.es/medioambiente/site/portalweb

- Citizen helpline: 954 54 44 38

- Citizen mailbox: www.juntadeandalucia.es/medioambiente/buzondelciudadano

- Rediam Channel: www.juntadeandalucia.es/medioambiente/rediam

Information sources:

[1] Instituto Nacional de Técnica Aeroespacial.

[2] Ministerio para la Transición Ecológica y el Reto Demográfico.

[3] Instituto de Estadística y Cartografía de Andalucía.

[4] Instituto Nacional de Estadística.

[5] Consejería de Agricultura, Pesca, Agua y Desarrollo Rural.

[6] Ministerio de Sanidad.

[7] Asociación de Educación Ambiental y del Consumidor (ADEAC).

[8] Agencia Andaluza de la Energía.

[9] Consejería de Empleo, Empresa y Trabajo Autónomo.

The information where the source of the data is not mentioned, corresponds to the Red de Información Ambiental de Andalucía (REDIAM) of the Consejería de Sostenibilidad, Medio Ambiente y Economía Azul.

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