



"Basic Environmental Data in Andalusia 2011 Edition" has been produced under the initiative of the Regional Ministry of Environment of the Junta de Andalucía, and directed by the Directorate General of Sustainable Development and Environmental Information in coordination with the Environment and Water Agency.

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Table of Contents	page		page	
TERRITORIAL CONTEXT	3	PRODUCTIVE SYSTEM	23	
ENVIRONMENTAL INDICATORS	4	ENVIRONMENTAL QUALITY AND PREVENTION Environmental Prevention	24 24	
NATURAL RESOURCES Climate and Climate Change	6	Air Quality Waste	25 26	
Land Vegetation cover and land use Water	8 10 12	URBAN ENVIRONMENT	28	
NATURAL AREAS	15	SOCIAL PERCEPTION, EDUCATION AND ENVIRONMENTAL VOLUNTEERING	29	
Natura 2000 Network Protected Natural Areas	15 16	PLANNING AND REGULATIONS	30	
MANAGEMENT OF THE NATURAL ENVIRONMENT Forests	18 18	STRUCTURE AND INVESTMENTS OF THE REGIONAL MINISTRY OF ENVIRONMENT	31	
Biodiversity and Geodiversity Hunting and Fishing management	20 21	DIRECTORY AND INFORMATION SOURCES	32	

In the bottom corner of each section you will find a QR code that will grant you access to further information on the corresponding subject at the Andalusian Regional Ministry of Environment's website. You only need a mobile device with camera and a code reading application, which you can download and install for free. After installing the application, place the camera at a distance of about 15 cm from the code and scan it to gain access to the corresponding web address. The websites gives you the possibility of downloading all the statistics (tables and charts) as editable spreadsheets, and the maps as interoperable web services that can be viewed with any GIS client (Geographical Information System).

• Surface area and population* [1][2][3][4]

Surface area of Andalusia (km²) Length of the Andalusian coastline (km)	87,597 1,101
Legal population of Andalusia (inhab.) 2010 Percentage of Andalusian population as regards Spain (%)	8,370,975
Percentage of Andalusian population as regards UE-27 (%)	1.67
Population density in Andalusia (inhab./km²) 2010	95.56 92.93
Spain 2010 (inhab./km²) UE-27 2008 (inhab./km²)	92.93
Aging rate in Andalusia 2010 (% pop. > 65 years old)	14.95
Distribution of Andalusian population per Territorial Domains 2010 (%)	
Coastal areas	38.26
Sierra Morena-Los Pedroches	2.88
Baetic Mountain Ranges and Valleys	17.05
Guadalquivir Valley	41.81

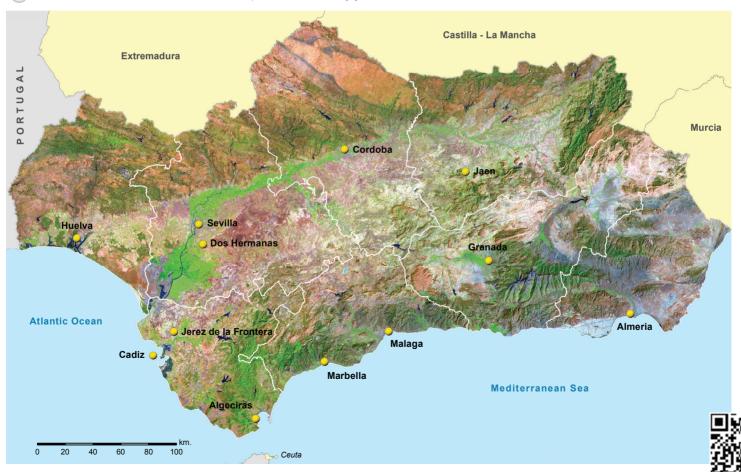
Population in Andalusia [3]

Distribution of Andalusian population per municipality size 2010

	Nº of municipalities	Population (%)						
Less than 5,000 inhab.	508	10.97						
Between 5,000 and 20,000 inha	b. 181	21.27						
Between 20,000 and 50,000 inh	iab. 52	17.13						
Between 50,000 and 100,000 in	hab. 17	14.69						
More than 100,000 inhab.	12	35.95						
Total of municipalities:	770							
Urban population, 2010	4	,404,630 (52.62%)						
Rest of Andalusia	:	3,966,345 (47.38%)						
Only the urban settlements set by the eight capital cities are included								

^{*} See information sources in the back cover.

Main Andalusian towns (> 100,000 inhab.) [3]





Environmental Indicators in Andalusia 2010

Environmental elements and factors

	EVOLUTION	SITUATION	TREND	INDICATORS
Climate	4	(2)	Ψ.	Global warming index
	1	<u>··</u>	Ψ	Water balance
	↑ ② ↑ Water ↑ ③ —			Waste water disposal and treatment
Water				Bathing water quality
	_	<u></u>	1	Quality of surface waters
	_	<u></u>	1	Groundwater quality
↓ □			_	Urban waste production
Urban waste	1	(1)	1	Urban waste treatment in Andalusia
Orban waste	1	(1	Recycling of urban waste evolution in Andalusia by type
	1	<u> </u>	1	Waste selective collection evolution in Andalusia
Dangerous	1	<u></u>	1	Declared production of hazardous waste in Andalusia
waste	1	<u></u>	1	Number of facilities for the treatment and/or storage of hazardous waste
→ Primary energy consumption in Andalusia		Primary energy consumption in Andalusia		
Energy	1	(1)	1	Final energy consumption per energy sources and activity sectors
	1	<u></u>	1	Renewable energy penetration rate

Natural environment evaluation and management

	EVOLUTION	SITUATION	TREND	INDICATORS						
Soil and desertification	4	②	?	tion of soil erosion						
Vegetation and drought	^	<u></u>	1	al water stress index						
	4	(2)	_	Land cover by built and altered surfaces						
Landa a sunstian	_	<u> </u>	_	Land cover by agricultural surfaces						
Land occupation	_	<u></u>	_	Land cover by forest and natural areas						
	_	<u> </u>	_	Land cover by waters and wetlands						
	1	<u></u>	1	Monitoring of catalogued flora and flora of interest						
	1	(1)	1	Collection of Germplasm in the vegetal propagation laboratory						
Biodiversity	1	0	1	Fauna included in the Andalusian census						
	1	©	1	Admission of animals in recovery centres for endangered species (CREA)						
	1	<u></u>	1	Protected Natural Areas in Andalusia						
Network of natural sites and green corridors	1	(2)	1	Public use facilities in the Network of Natural Protected Areas in Andalusia (RENPA)						
green comdors	1	(2)	1	Boundaries of cattle tracks						
	_	<u></u>	1	Forest fires						
Performances	1	<u> </u>	1	Phytosanitary state of forests						
and improvements	1	(2)	1	Monitoring of forest damages						
in the forest environment	1	(2)	1	Hunting and fishing activity						
	1	<u>·</u>	_	Forest improvements in public property areas						

Environmental quality evaluation and management

	EVOLUTION	SITUATION	TREND	INDICATORS				
Quality of Quality of			1	Polluting load of urban effluents along the coast				
coastal waters	1	<u> </u>	_	Polluting load of industrial effluents along the coast				
Quality of the 🔱 🙂 🗕		_	Emissions of tropospheric ozone precursor gases in Andalusia					
atmospheric environment	1	<u></u>	1	Air quality index for representative stations				



Environmental Indicators in Andalusia 2010

Urban environment, productive fabric and planning

	EVOLUTION	SITUATION	TREND	INDICATORS			
	4	<u></u>	_	Electricity consumption			
Environment and	1	<u>©</u>	1	Housing behaviour: Restoration and subsidised housing in Andalusian cities.			
the city			_	Evolution of the number of cars in Andalusia			
	?	<u>··</u>	1	Public green areas in the Andalusian capital cities and in towns with more than 100,000 inhabitants			
	1	<u></u>	1	Granting of integral environmental authorizations			
	_	<u></u>	_	Fertilizers consumption			
Environmental integration	1	(1)	1	Evolution of the ecological agriculture surface in Andalusia			
	₩	(1)	_	Mobility and accessibility			
	1	(2)	1	Tourism intensity in Andalusia			
European programs and initiatives	^	<u></u>	^	Budget invested in international cooperation projects by the Regional Ministry of Environment			

Innovation, information and knowledge

	EVOLUTION	SITUATION	TREND	INDICATORS
Environmental information and research	1	©	1	Guarantee of environmental information disclosure and availability
Social perception of environmental a airs	1	<u>•</u>	1	Citizens perception on environmental evolution in Andalusia
Environmental education	↑	000	↑	Participation in environmental education programs ALDEA Participation in environmental training programs at environmental education centers
Environmental volunteering	1	<u></u>	1	Participants in environmental volunteering programs

The environmental evaluation of each indicator is formulated by considering three parameters that refer to the evolution, situation and trends aspects. Evolution makes reference to the trajectory followed by an indicator through time. Situation represents the current condition of an indicator. Trends means the future perspective of an indicator, according to the policies, strategies, guidelines or plans a ecting it, and to the general context. Each of these aspects are represented graphically according to the following symbols:

- Favourable evolution or tendency
- Unfavourable evolution or tendency
- Stable evolution or tendency
- Favourable current situation
- Unfavourable current situation
- 🗀 Stable current situation
- ? Absence of data or insufficient data

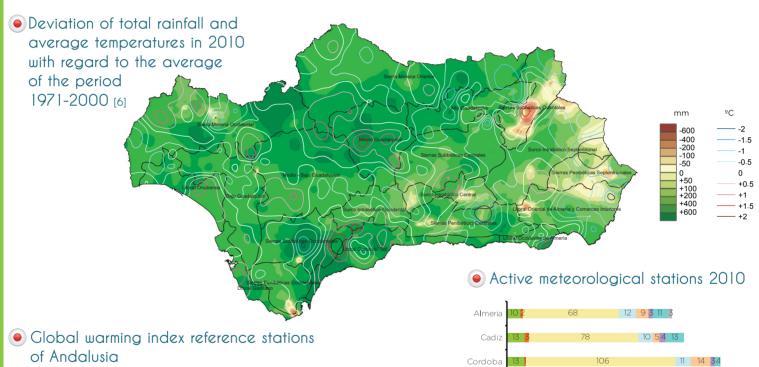
These indicators are a selection of the set of environmental indicators included in the publication "Environment in Andalusia. 2010 Report" of the Regional Ministry of Environment of the Junta de Andalucía.



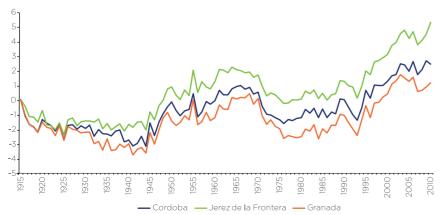
Climate and climate change

Dynamic characterization [5]

Geographic areas	Climate type	Annual average temperature (°C)	Annual average rainfall (I/m²)	Annual nº of rainy days	Nº of months within dry period	Annual thermal amplitude (°C)	Nº of days with frosts	Nº of days with snowfall
Atlantic Coastline	Oceanic Mediterranean	17-19	500-700	75-85	4-5	10-16	Free	Free
Guadalquivir Depression	Continental Mediterranean	17-18	500-700	75-100	4-5	18-20	2-20	Exceptional
Sierra Morena	Semi-arid Mediterranean	16-17	600-800	75-100	3-4	18-20	20-40	1-5
Mediterranean coast (up to Adra)	Subtropical Mediterranean	17-19	400-900	50-75	4-5	13-15	Free	Exceptional
Mediterranean coast and Southeast	Subdesertic Mediterranean	17-21	< 300	< 50	6-8	13-16	0-10	Exceptional
Intrabetic Furrow	Continental Mediterranean	13-15	300-600	60-80	4-5	17-20	30-60	2-6
Betic Mountain ranges	Mountain Mediterranean	12-15	400-1.000	60-100	3-4	16-20	30-90	2-30



Granada Huelva Jaen Malaga Seville



■ AEMet's automatic stations ■ AEMet's main stations ■ AEMet's secondary stations ■ RAIF ■ RIA ■ EARM ■ SN ■ Surveillance of Air Quality Network

AEMET - Spanish Meteorological Agency. RIA - Agrocliatic Information Network. RAIF - Phytosanitary information and alert Network. ERAM - Support network to combat forest fires. SN - Sierra Nevada Station Network.



Climate and climate change

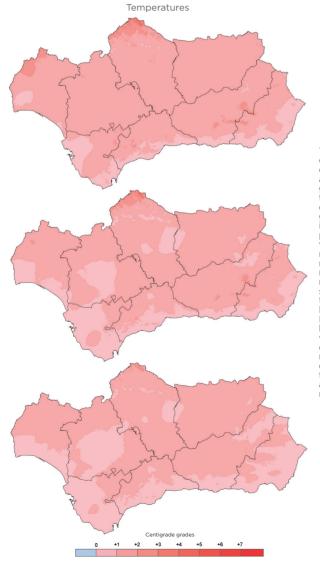
Emissions of greenhouse effect gases (GHG) in Spain and Andalusia

	1990	2005	2006	2007	2008	2009
Total emissions in Spain (tCO ₂ eq) (1)	285,123,288	435,112,268	427,281,389	438,676,782	405,740,285	367,548,424
Total emissions in Andalusia (tCO₂eq)(1)	36,836,000	65,825,826	65,355,537	67,248,051	58,188,347	55,974,558
Emissions of industrial sector in Andalusia (tCO ₂) (2)	-	32,346,078	31,763,563	33,447,038	27,233,711	25,644,523
Emissions of fuzzy sector in Andalusia (tCO_2eq)	-	33,479,748	33,591,974	33,801,013	30,954,636	30,330,035
Total emissions in Spain per inhabitant (tCO₂eq/hab)	7.23	9.86	9.56	9.71	8.79	7.84
Total emissions in Andalusia per inhabitant (tCO ₂ eq/hab)	5.25	8.32	8.15	8.27	7.05	6.71



(1) Gross emissions data, without subtracting drains (2) Industrial sector means the facilities of the European regime for emission rights trading. The cells with no data available are marked with a "-".

Climate scenarios in Andalusia: foreseen variations in the 2040-2069 period with regard to historical series

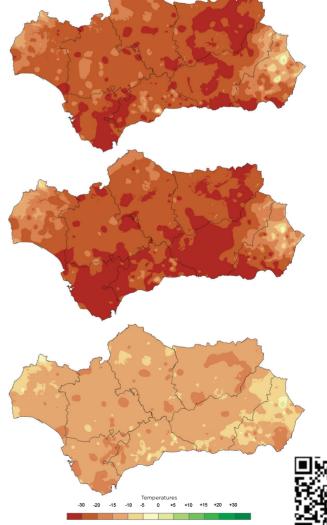


Scenario A1B

Scenario A2

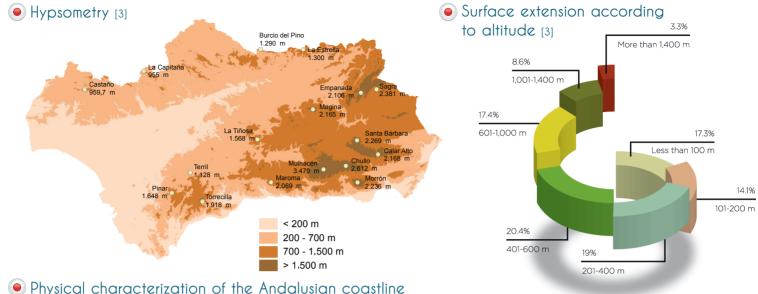
Scenario B1

The A1B scenario describes a world characterised by a fast economic growth, based on the balanced use of different enersources and in which regions progressively converge. The A2 scenario describes a heterogemore neous world characterised by selfsufficiency and by the preservation of local identities. The B1 scenario describes a converging world that advances towards economic, social and environmental sustainability, without additional climaterelated measures.

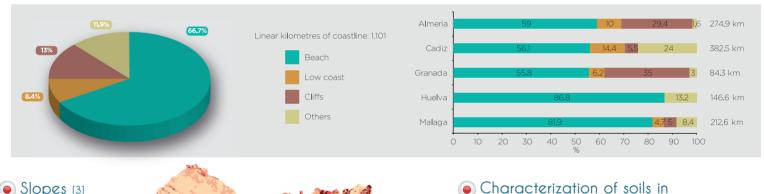


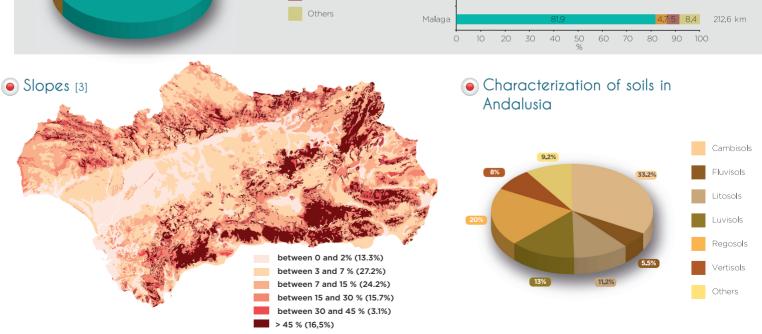
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Land



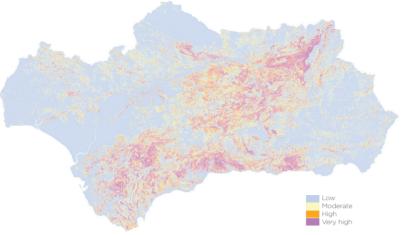




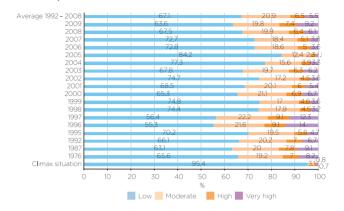


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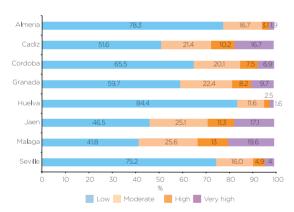


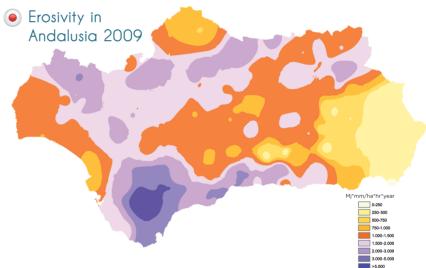


Estimation of soil erosion in Andalusia.
 Temporal evolution

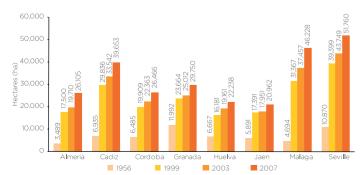


Estimation of soil erosion in Andalusia per province 2009

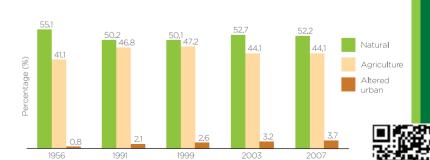




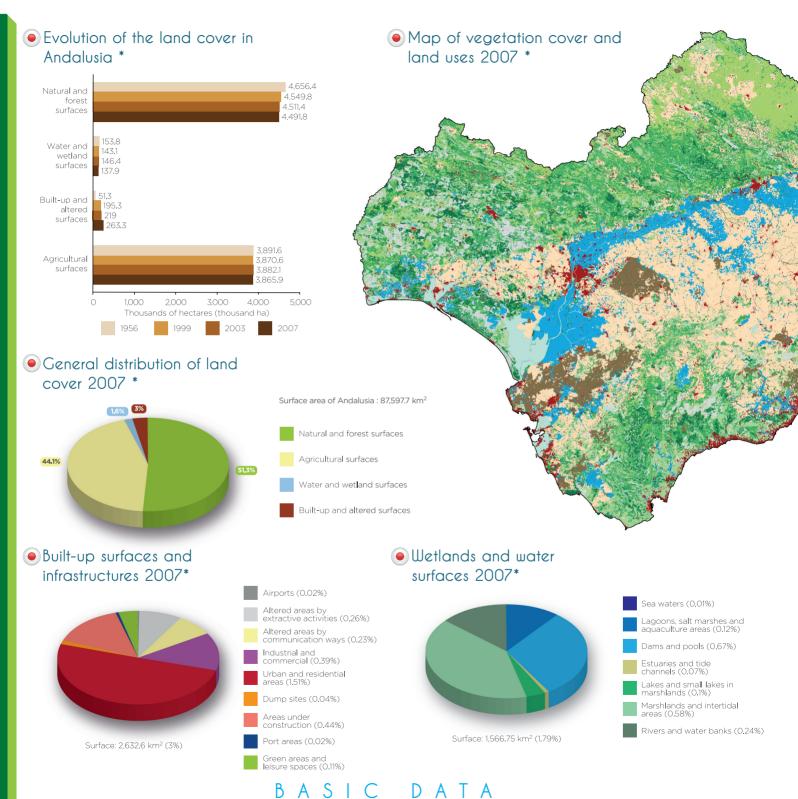
 Evolution of the urban surface in Andalusia per province

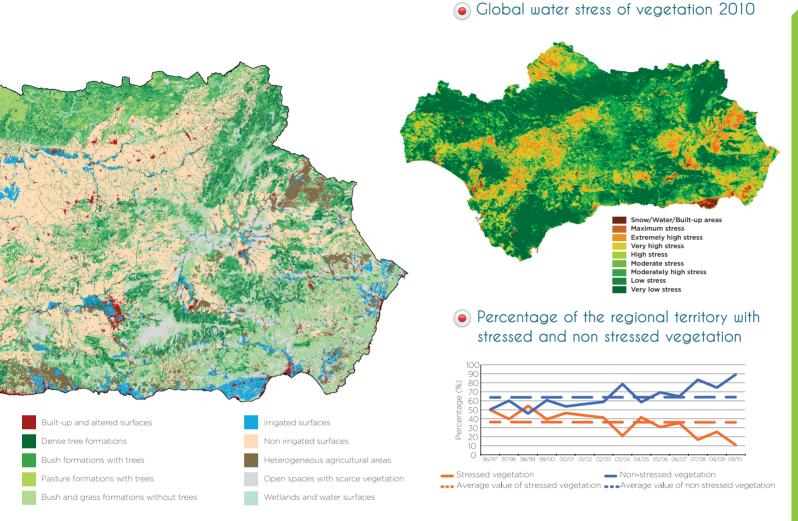


Landscape evolution in Andalusia

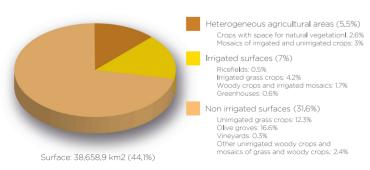




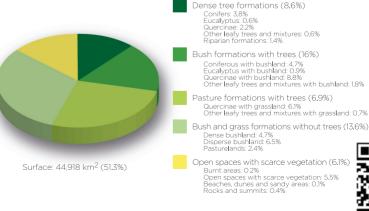




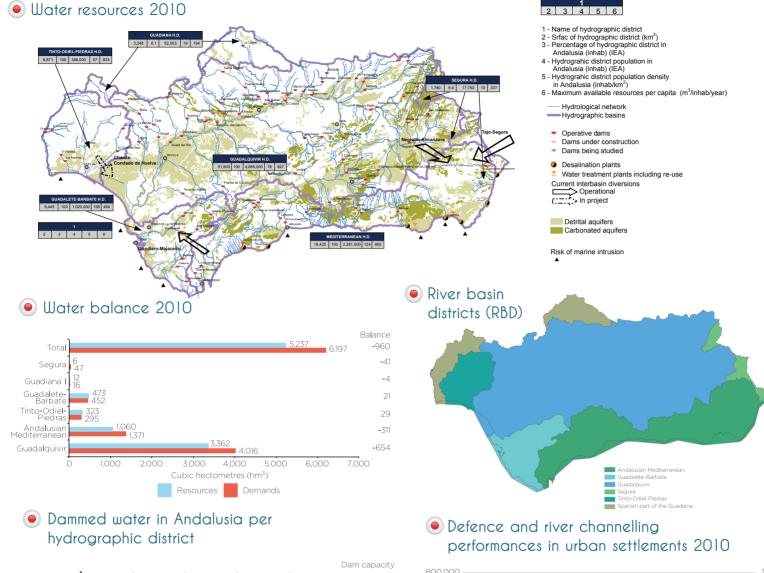
Agricultural surfaces 2007 *



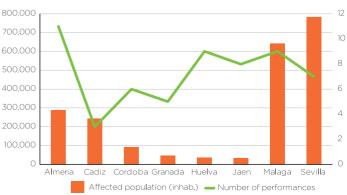
Natural and forest surfaces 2007*



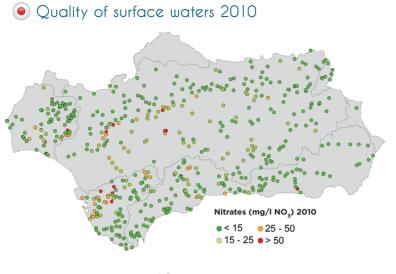


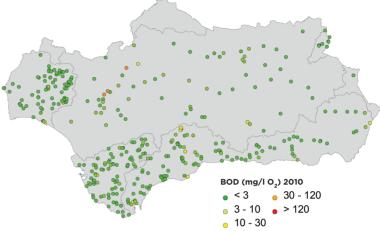


1,176.9 hm³ Mediterranear 799.5 377.4 Guadalete-1,353.5 1,651.7 hm³ 298.2 Barbate Tinto-Odiel-727.1 1,107.9 hm³ Piedras 6,706.6 7.985,5 hm³ 1,278.9 Guadalquivir 9,586.7 11,922 hm³ Total 40 80 100 20 60 Not dammed capacity (hm3) Dammed water (hm³)





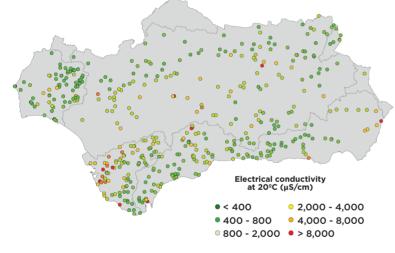




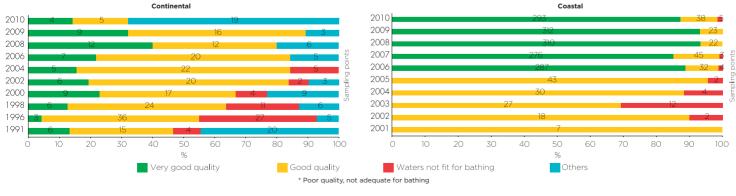
Urban Waste Water Treatment Plants (UWWTP) in Andalusia 2010

	Unde	er construction	Operating		
Province	Number	Equivalent charge	Number	Equivalent charge	
Almeria	3	1,527	128	1,022,417	
Cadiz	6	258,583	74	1,712,530	
Cordoba	9	77,826	37	1,067,816	
Granada	6	23,345	82	957,965	
Huelva	7	72,779	60	814,512	
Jaen	3	39,377	80	796,284	
Malaga	3	17,034	74	2,478,696	
Seville	11	148,774	53	2,835,723	
Andalusia	48	639,245	588	11,685,943	

Equivalent charge is the theoretical number of people that would generate a waste water volume equivalent to the sum of the waste water generated by the population, industry and agricultural and farming activities. Data include all the urban areas with working or under construction waste water treatment plants (WWTP), including those with less than 2,000 inhabitants-equivalent (inhab-eq).

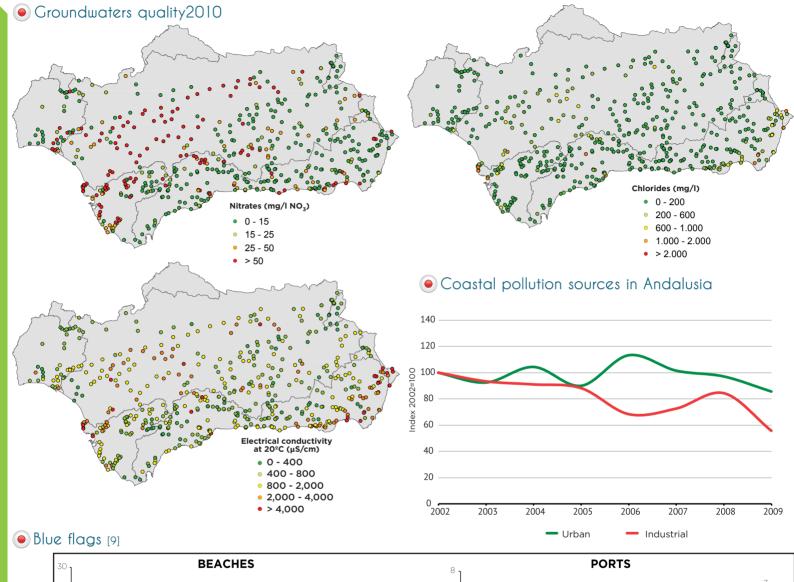


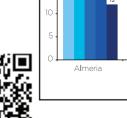
Bathing water quality [8]

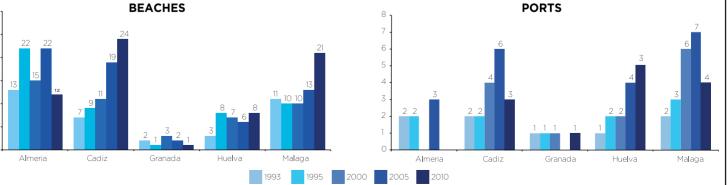


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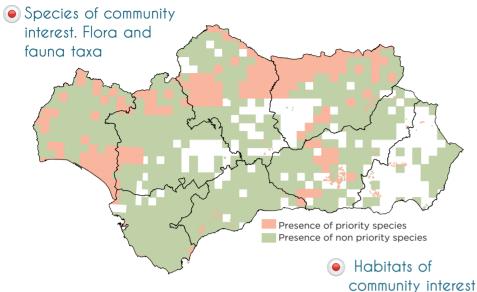










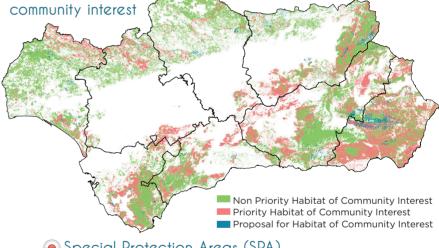


		Spain	Andalusia		
	Total	Priority	Total (*)	Priority (*)	
Flora	101	32	49 (49%)	18 (56%)	
Invertebrates	23	3	14 (61%)	1 (33%)	
Fish	16	2	11(69%)	1 (50%)	
Amphibians	3	1	1 (33%)	0(0%)	
Reptiles	9	1	5 (56%)	1 (100%)	
Mammals	20	4	16 (80%)	3 (75%)	
Total	172	43	96 (56%)	24 (56%)	

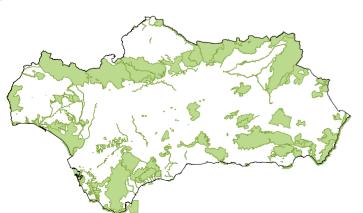
^{*} The percentage is calculated with regard to all the species present

Non Priority Habitat of Community Interest 23 Priority Habitat of Community Interest 13 Proposal for Habitat of Community Interest 1	Habitats	%*
Proposal for Habitat of Community Interest 1	Non Priority Habitat of Community Interest	23
	Priority Habitat of Community Interest	13
Habitat Total Surface 37	Proposal for Habitat of Community Interest	1
Traditat Total Sarrace	Habitat Total Surface	37

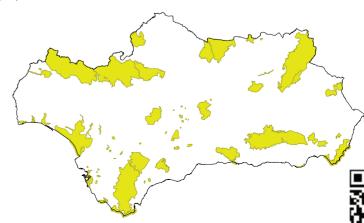
^{*} The table includes exlusively Habitats of Community Interest that are directly related to vegetal formations. The surface percentages are calculated with regard to the total surface of Andalusian habitats.







Special Protection Areas (SPA)



Percentage of protected territory in Andalusia and Spain

Distribution of natural spaces per protection figures [7]

x 10

Protection figure	Number	Surface (ha)
National Park	2	140,135.05
Natural Park	24	1,422,029.11
Natural Site	32	90,621.88
Natural Reserve	28	21,727.25
Suburban Park	21	5,994.77
Natural Monument	40	1,061.62
Protected Landscape	2	19,663.59
Arranged Natural Reserve	5	804.22
ZIC (ZEPA+ZEC) ¹	63	69,665.62
Total ²	154	1,702,022.8

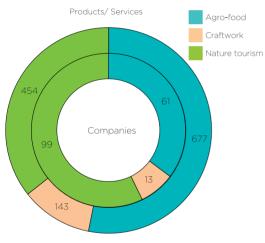
 Currently there is no declared SACs, so the number of ACIs matches the number of SPAs. Surface data for this figure correspond to the two only SPAs that share no space with any other protection figure (Alto Guadiato and Campiñas de Sevilla).

of Sevilla).

2. Existing overlaps between different protection figure (Alto Guariato and Campinas de Sevilla).

2. Existing overlaps between different protection figures have been deduced from the total surface calculation.

Brand Natural Park of Andalusia, 2010

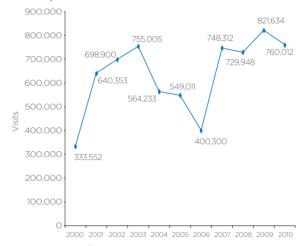


 Evolution of the number of visits to reception and information facilities

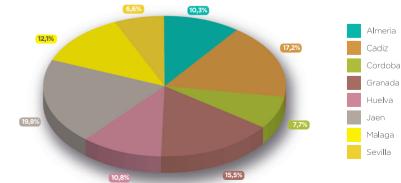
The spaces of the Natura 2000 Network are no included.

Andalusia Spain

8.9



 Provincial distribution of existing facilities in Protected Natural Areas 2010

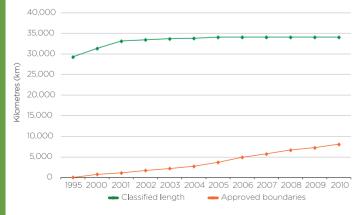


Sierra Pelada

El Saltillo

Lagunas de Palo

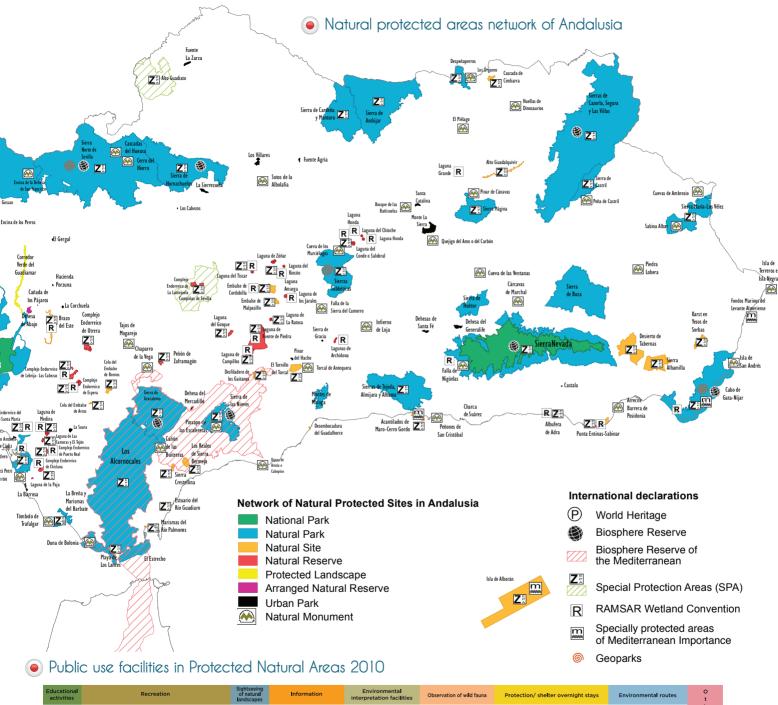




BASIC DATA

Ida de

Protected natural areas



* "Others" includes the following facilities: camping areas, craft houses, bar-restaurant stands and scientific observatories

128

point 25

CR

Hotel

112

ľa





K

343

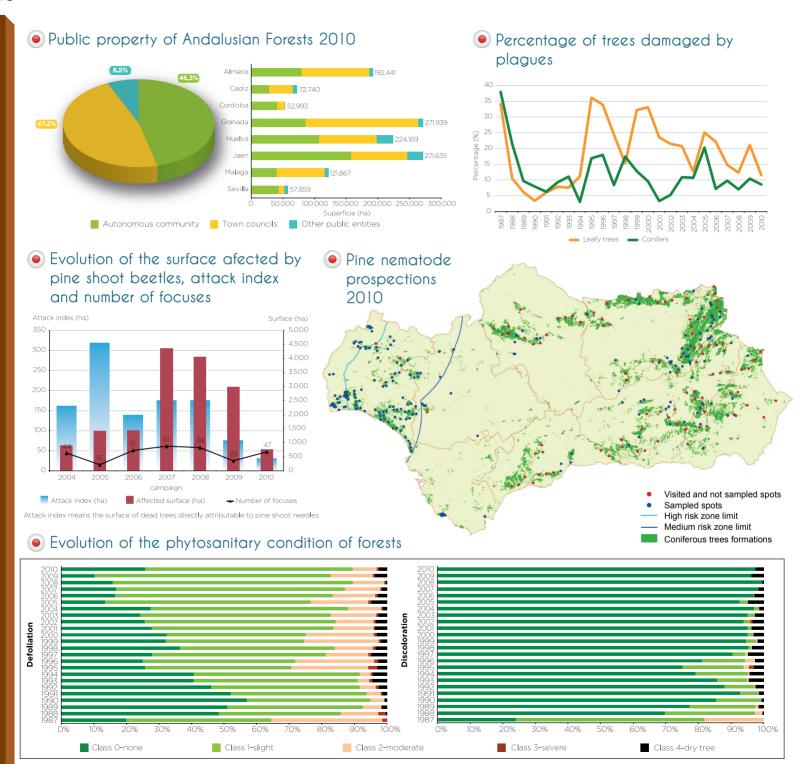
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ΙV

shelter

camping area

R



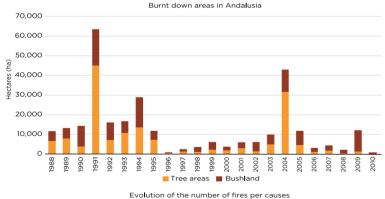
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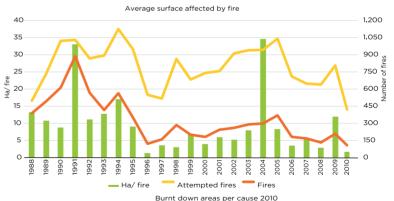


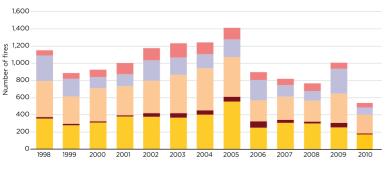


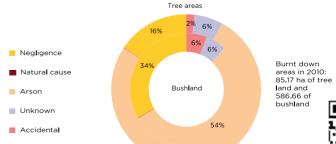


Forest fires









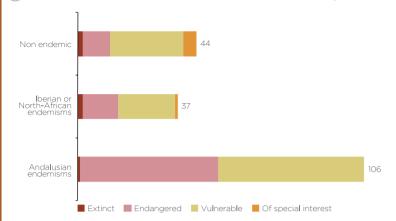
76%



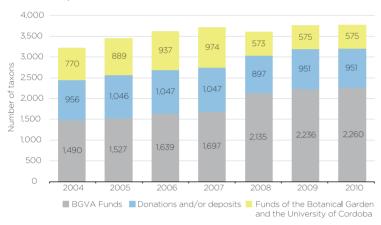
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Biodiversity and Geodiversity

Andalusian catalogue of endangered flora species



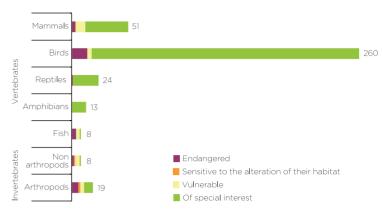
Taxa preserved in the Andalusian Vegetal Germoplasm Bank (BGVA)



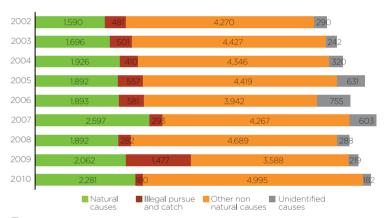
Evolution of Iberian lynx reproductive populations

Year	Territorial females	Reproductive females	Minimum num- ber of cubs	Population estima- tion (specimens)
2001	31-32	-	12	Partial data
2002	28-30	21	36	Partial data
2003	30-31	16	29	126 (116-135)
2004	37	26	42-43	132 (123-141)
2005	37-40	20	39	139 (130-147)
2006	42-44	32	73	188 (179-191)
2007	42-44	21	37	188
2008	50	22	72-73	196-199
2009	58	23-45	69	225
2010	66	37	82	253

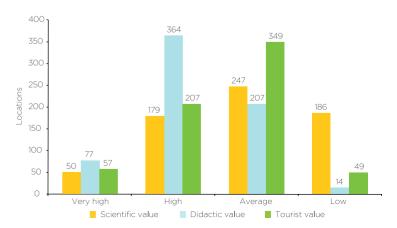
Andalusian catalogue of endangered wildlife



Cause of admissions in Endangered Species Recovery Centres (CREA)



Assessment of locations included in the Andalusian Inventory of Geo-resources









1,242

1.225.7

815<u>785.2</u>

Fishing preserves per type 2010

Province	Туре	Fishing regime	Number of preserves	Number of preserves without death	Length (km)	Surface (ha)
Almeria	Trout preserve	High mountain	1	1	3.48	-
Cadiz	Trout preserve	Low mountain	1	0	5.29	-
Cordoba	Cyprinidae and other species preserves	Intensive	1	0	-	12.80
		High mountain	6	5	30.09	242.72
Granada	Trout preserve	Low mountain	6	2	43.72	42.00
		Intensive	2	0	3.20	0.28
Huelva	Cyprinidae and other species preserves	Intensive	3	2	-	48.94
		High mountain	6	6	34.09	-
Jaen	Trout preserve	Low mountain	16	6	84.33	289.11
		Intensive	3	0	10.69	-
Malaga	Trout preserve	Low mountain	2	2	16.34	-
Sevilla	Trout preserve	Intensive	1	0	5.70	-

Evolution of hunting licences per type

Cordoba

1,142.8 1.090

Game preserves 2010

656.3

Almeria

1,600 1.400

800

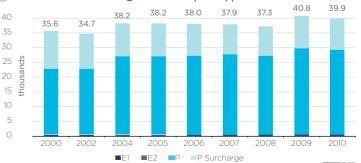
600 400



Granada ■ Number of preserves ■ Surface (thousand of ha)

Class A: Firearms; class B: Other authorized procedures; class C: Falconry birds, ferrets, male partridge birdcall or hunting packs of hounds

Evolution of fishing licences per type



Class P surcharge: Licence for fishing trout; class P: Licence for fishing all species but trout; class E1: Licence for motorboat; class E2: Licence for paddle boat



Productive System

2,2 %

Economic activity and environment 2008

6,1 % 0,7 % 10,8 %



INTERNATIONAL MARKET	2009	2010*
Imports (thousands of €)	18,073,077.19	23,217,791.71
Exports (thousands of €)	14,477,561.07	18,471,761.07
Balance	-3,595,516.12	-4,746,030.64

* Provisional data

GDP AND INCOME *:	GDP PER CAPITA, 2008	GROSS AVAILABLE INCOME PER CAPITA 2008
Andalusia (€/hab.)	18,384	12,480
Spain (€/inhab.)	23,866	15,433

* Provisional data

EMPLOYED POPULATION IN ANDALUSIA 2010	Men	Women	Total	
Employed (thousands of people)	1,645.3	1,214.0	2,859.3	
Unemployed (thousands of people)	604.6	505.9	1,110.5	
Employment rate (%)	67.7	50.1	58.7	
Unemployment rate (%)	26.9	29.4	28.0	

Livestock [11][12]

2,000

45,000

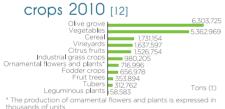
40,000 35,000 34,586.2

€ 30,000

€ 25,000

20,000

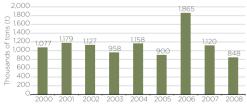
15,000 10.000

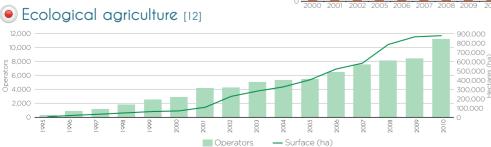


Production of agricultural

thousands of units Provisional data







BASI

Consumption of phytosanitary

products [13]



15.6 %

6,8 %

11,7 %

4,1 %

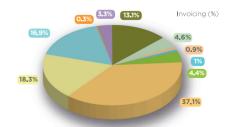
Number of employees in the environmental sector

< 10,000 10,000 - 15,000

> 15,000



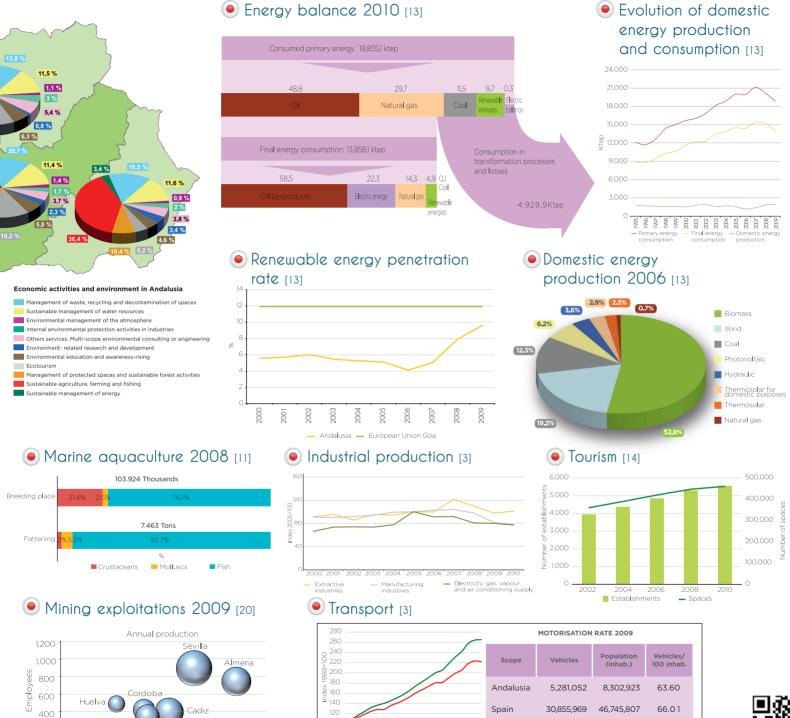
Business volume on environmental activities, 2008



Remarks: In 2008 the environmental goods and services sector employed more than 100.000 people in Andalusia, generating an income of more than 7300 million euro (averagely 1,78 million euro (re-stablishment).



Others services. Multi-scope environmental consulting or engineering



200

140 160

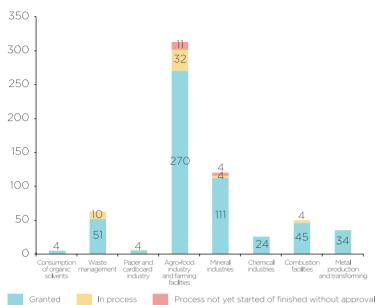
40 60 80 100 120 Number of exploitations



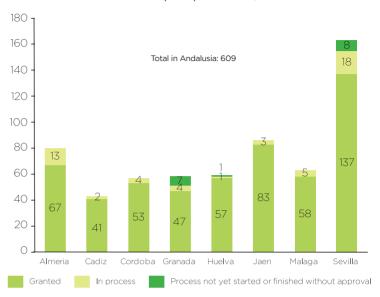
Population data come from the review of the Municipal

Environmental prevention

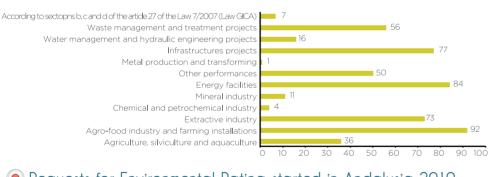
Integrated Environmental Authorizations (AAI) in Andalusia per activity sector, 2010

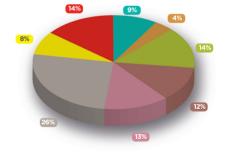


Integrated Environmental Authorizations (AAI) in Andalusia per province, 2010



Requests for Unified Environmental Authorizations (AAU) started in Andalusia 2010





Almeria

Cadiz Cordoba

Granada Huelva

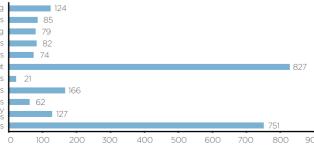
Jaen

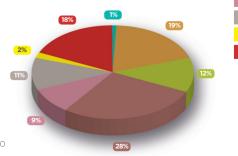
Malaga

Sevilla

Requests for Environmental Rating started in Andalusia 2010



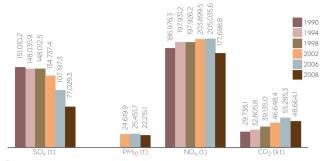




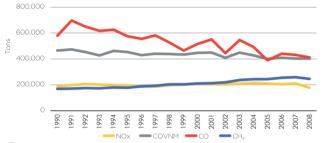
BASIC DATA

Quality of the atmosferic environment

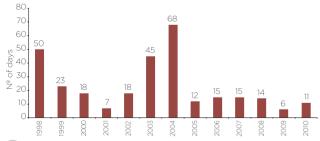
 Atmospheric emissions in Andalusia Main pollutants 1990-2008



 Emissions of tropospheric ozone precursor gases in Andalusia 1990-2008



Episodes of high pollution in Andalusia 1998-2010



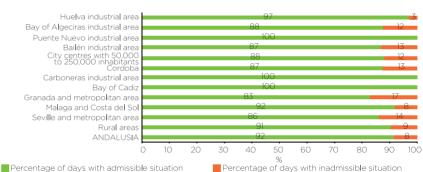
 Evolution of noise pollution inspections and tests carried out in Andalusia 2000-2010



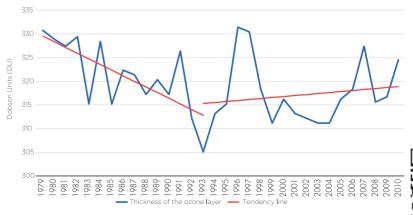
Monitoring and Surveillance of Air QualityNetwork 2010



Atmospheric emissions in Andalusia
 Global rating 2010



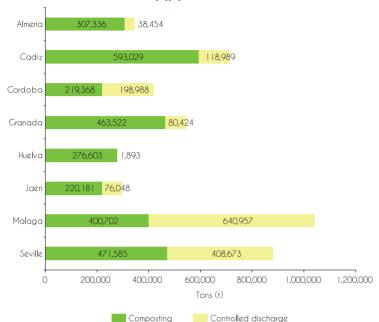
 Average thickness of the ozone layer over Andalusia 1979-2010





Waste

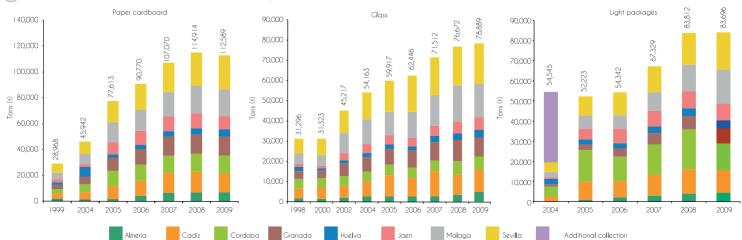
Urban waste production and treatment 2009 [2][7]



Urban waste production in Andalusia 2009 (t/year) 1 4,860,802
Urban waste production in Spain 2009 (t/year) 1 25,569,956
Percentage with regard to Spain's total (%) 19
Kg/inhabitant/day production of urban waste in Andalusia 2009 2 1.6
Kg/inhabitant/day production of urban waste in Spain 2009 2 1.5

Including selective collection
 Population data referred to the 2009 census

Selective collection and waste recycling [15]



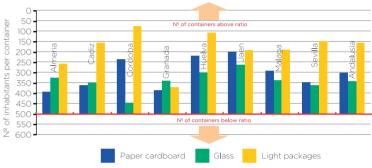
Urban waste treatment in Andalusia 2009

65.4%



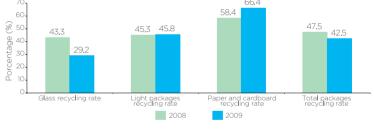
346%

 Containers ratio (inhab./ container) for selective collection of urban waste per provinces 2009



The current legislation requires a minimum ratio of one container per each 500 inhabitants

Packages recycling rate [15]



Facilities for selective collection of urban waste 2009 There Androws Branch And

Declared production of hazardous waste in Andalusia 2009

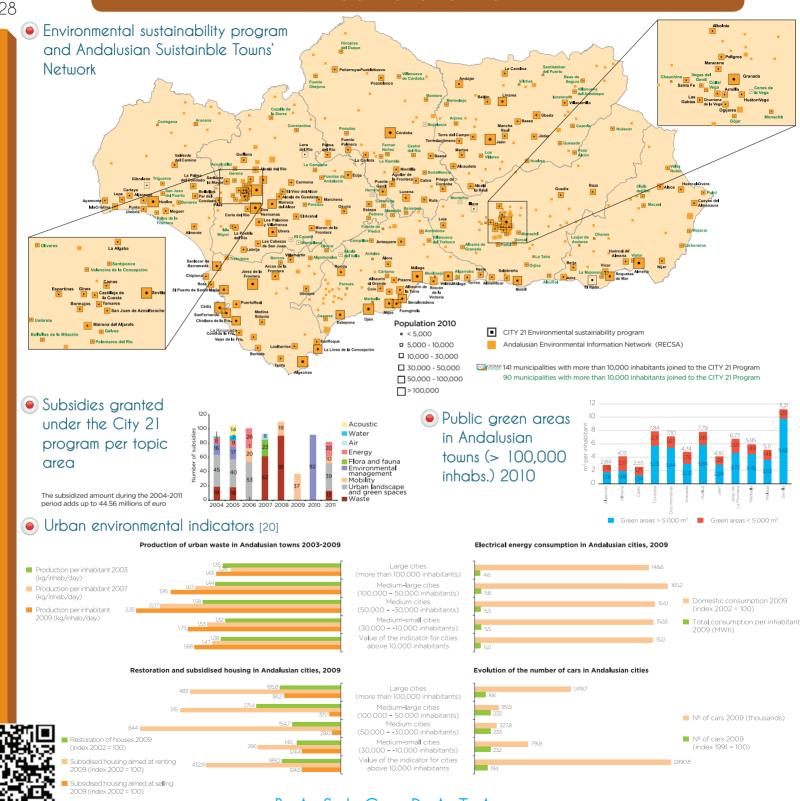
Transfer station





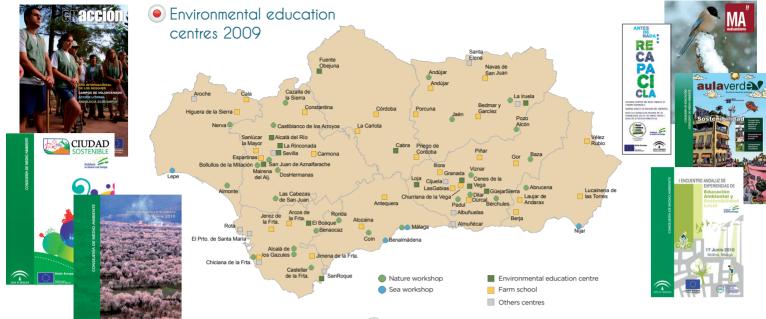
ANDALUSIA 2011

Urban environment



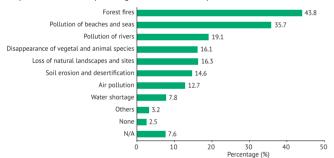


Social perception, education and environmental volunteering

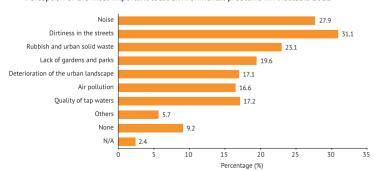


Ecobarometer [17]

Perception of the most important global environmental problems in Andalusia 2011



Perception of the most important	local environmental	problems in Andalusia 2011



 Participation in campaigns of the environmental education program "Aldea Activa" 2010 [18]

Campaign	Activity	Centres	Teachers	Student
Grow with your tree	Reforestation	444	5,239	62,178
Let's take care of the coast	Data gathering and analysis	126	917	10,05
Ecological food	Promotion of ecologic food	64	-	8,49
Education for the Conservation of the Andalusian Network of Botanical Gardens	Knowledge of Andalusian flora	172	927	11,68
Bird education	Knowledge of birds and their habitats	16	22	1,00
Water, naturally	Awareness-raising on water values	33	49	5,03
Natural site of Doñana	Knowledge of the rural environment	80	314	5,60
Natural site of Sierra Nevada	Knowledge of the rural environment	36	45	95
Kyoto educa	Awareness on Climate Change	226	3,255	41,15
Nature and you	Environmental awareness-rising in natural spaces	395	1,652	25,86
Natural and Landscape resources Module	Knowledge of natural values	1	10	5
Andalusian Network of Ecoschools	Environmental audit	194	5,678	71,15
Educational trips, activities in environmental education centres.	Environmental education	174	332	4,46
One day with the lynx	Awareness-rising for promoting preservation	18	60	1,37
Total		1,979	18,500	249,07

Local volunteer environmental programs 2010

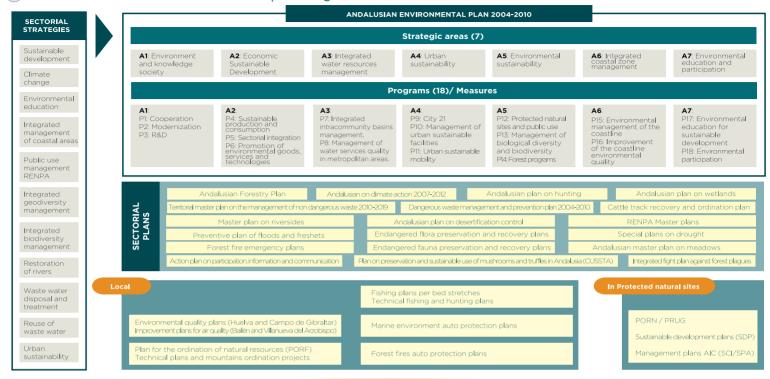
Program	Participants	Volunteer Working Hours (VWH)
Andarrios	1,116	13.024
Ringing of flamingos (Odiel and Fuente de Piedra marshlands)	690	13.110
Coastal birds	100	4.500
Environmental volunteering camps	133	10.640
Loggerheada sea turtle Program - Cabo de Gata	159	3.672
Coastal action day	345	1.202
Life-Lynx volunteering	30	4.680
Iberian Lynx volunteering- Estepona	15	1.620
Mediterranean mount volunteering	600	3.600
Eremite program	16	3.120
MIGRES program	120	18.480
Posimed project	40	400
Local projects	1,300	78.000
Doñana volunteering network	48	1.338
Sierra del Huétor volunteering network	45	901
Bay of Cadiz volunteering network	58	777
La Breña and Barbate marshlands volunteering network	65	927
Occidental coast of Huelva and Odiel marshlands volunteering network	75	5.884
Sierra Mágina volunteering network	61	1.315
Sierra Nevada volunteering network	65	6.604
Sierra Nieves volunteering network	59	1.470
Sierra Norte volunteering network	52	2.631
Andalusian coast environmental volunteering networks	172	8.434
Total	5,364	186,329



ANDALUSIA 2011

Planning and regulations

Current situation of environmental planning in Andalusia



Main Andalusian environmental regulations

STRUCTURE AND ORGANIZATION

- Law 1/2011 of February 17th, on restructuring the Anda-
- · Decree 148/1994 of August 2nd on restructuring the Regional Ministries. (creation of the Regional Ministry of
- Decree 105/2011 of April 19th, which establishes the organic structure of the Regional Ministry of Environment.
- Decree 66/2011 of March 29th, means and services on coasts transferred by the Spanish National Government to the Andalusian Regional Government.
- Decree 104/2011 of April 19th, approving the internal regulations of the Environment and Water Agency of Andalı ısia

- Law 9/2010 of July 30th, on Waters of Andalusia.
- Decree 14/2005 of January 18th on the transfer of means and services on hydraulic resources transferred by the Spanish National Government to the Andalusian Regional
- Decree 357/2009 of October 20th, which determines the territorial sphere of the hydrographic limits of the intracommunity basins within Andalusia.

NATURAL PATRIMONY

- Law 2/1989 of July 18th, approving the Inventory of Protected Natural Sites of Andalusia and establishes additional protecting measures.
- · Law 2/1995 of June 1st, modifying the Law 2/1989 of July 18th, approving the Inventory of Protected Natural Sites of Andalusia and establishing additional protecting measures.
- Law 8/1999 of October 27th on the Natural Site of
- Law 8/2003 of October 28th, on Wild Flora and Fauna • Decree 225/1999 of November 9th on the regulation and development of natural monuments.

- Decree 95/2003 of April 8th, on the regulation of the Network of Protected Natural Sites and their Registry. Decree 98/2004 of March 9th, creating the Inventory of
- Wetlands of Andalusia and the Andalusian Committee on
- · Decree 137/2006 of July 4th, on the transfer of functions and services by the Spanish National Government to the National Parks of Doñana and Sierra Nevada
- Decree 15/2011 of February 1st establishing the general planning regime of uses and activities in natural parks and approving the speeding up of administrative procedures.
- Decrees on Natural Resources Management Plans
- (PORN) of Natural Spaces declared by the Law 2/1989. · Agreement of October 5th 2010 of the Government Council approving the Andalusian Geodiversity Integrated Management Strategy.
- · Agreement of September 27th 2010 of the Government Council approving the Andalusian Biodiversity Integrated Management Strategy,
- Agreements approving Sustainable Development Plans (SDP) for the Andalusian Natural Parks.

MANAGEMENT OF THE NATURAL ENVIRONMENT

- Law 2/1999 of July 15th on Andalusian Forestry.
 Law 5/1999 of July 29th on forest fire prevention.
- Law 7/2010 of July 14th, on the "Dehesa"
- Law 208/1997 of September 9th on the Andalusian forest regulation.
- Decree 155/1998 of July 21st, approving the Regulation on cattle tracks in Andalusia.
- Decree 247/2001 of November 13th, approving forest fire prevention and fight regulation.
- Decree 182/2005 of July 26th approving the Hunting Agreement.
- Decree 232/2007 of July 31st, approving the Andalusian Plan on Hunting, • Decree 13/2008 of January 22ndt, approving the organi-
- sation and functioning regime of the Andalusian institute of hunting and continental fi shing.
- Decree 14/2008 on January 22nd, approving the certifi

- cation and the gaming quality distinction of Andalusia.
- Decree 371/2010 of September 14th approving the Andalusian Forest Fire Emergency Plan and modifies the Forest Fire Prevention and Fight Regulations approved by the Decree 247/2001 of November 13th.
- · Agreement of March 27th, 2001 of the Gouvernment Council approving the Plan for the Recovery and Structuring of the Network of Cattle Tracks in Andalusia
- Agreement of September 7th 2010 of the Gouvernment Council approving the adequation of the Andalusian Fo-

ENVIRONMENTAL QUALITY AND PREVENTION

- Law 7/2007 of June 9th, on the integrated management of environmental quality.
- Decree 283/1995 of November 21st, approving the Regulation on waste of Andalusia.
- Decree 292/1995 of December 12th, approving the Re gulation of Environmental Impact Evaluation of Andalusia (repeated, without prejudice to the establishment of
- the fourth transitory disposition of the Law 7/2007, • Decree 297/1995 of December 19th, approving the Re
- gulation on Environmental Assessment • Decree 14/1996 of January 16th, approving the Regulation on Coastal Waters Quality
- Decree 189/2002 of July 2nd, approving the floods and freshets in Andalusian urban basins prevention plan.
- · Decree 326/2003 of November 25th, approving the Regulation on protection against acoustic pollution in Andalusia.
- Decree 99/2004 of March 9th, approving the review of the dangerous waste management plan in Andalusia 2004-2010
- Decree 356/2010 of August 3rd regulating the Unified Environmental Authorization, establishing the organizaton and working regime for the registry of authorizations for performances subject to environmental prevention and monitoring instruments, of potentially air-polluting activities and of facilities that emit volatile organic compounds

- and modifying the contents of the Appendix I to the Law 7/2007 of July 9th, on the Integrated Management of Environmental Quallity
- Decree 357/2010 of August 3rd approving the Night Sky Quality Protection Regulations against light pollution.
- Decree 397/2010 of November 2nd approving the Territorial Director Plan on Not Dangerous Waste of Andalusia 2010-2019
- Decree 169/2011 of May 31st approving the Energy Efficiency and Saving and Renewable Energy Promotion
- Decree 239/2011 of July 12th regulating the quality of atmospheric environment and creating the Registry of Air Quality Assessment Systems in Andalusia
- · Agreement of June 5th 2007 of the Government Council, approving the Climate action Andalusian plan 2007-2012: Mitigation program.
- · Agreement of August 3rd 2010 of the Government Council approving the Andalusian Climate Change Adap-
- · Agreement of May 3rd 2011 of the Government Council approving the Andalusian Urban Sustainability Strategy.

ENVIRONMENTAL INFORMATION

• Decree 347/2011 of November 22nd approving the structure and functioning of the Andalusian Environmental Information Network and the access to environmental



Structure and investments of the regional ministry of environment

General competences of the Regional Ministry of Environment of the Junta de Andalucía

According to the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the preparations of the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the preparation of the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the preparation of the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the preparation of the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the preparation of the President's Decree 17/2008, of March 22th, the Regional Ministry of Environment is competent for the President of the P ration and execution of the Governmental policy concerning the competences of the Autonomous Community of Andalusia as regards the environment and water, particularly, the following:

a) The monitoring, preservation, sustainable use, improvement and restoration of the natural patrimony and biodiversity in Andalusia, as well as the protection of soil and vegetal cover, and the development of performances for fighting against

b) The promotion of the adequate assignation of land cover and sustainable exploitation of renewable natural resources, thus contributing to the improvement of the socioeconomic conditions of the rural population.

c) The promotion of sustainable development by remarking the socioeconomic character of the environment and natural resources as generators of sustainable economy and of new employment sources.

d) The socioeconomic dynamization, management and protection of the Network of Protected Natural Sites of the Autonomous Community of Andalusia, and their declaration proposal, without prejudice to the Local Administration competences

e) The formulation of basic criteria, programming, planning and normative development with regards to the preservation of biodiversity, and landscape richness and variety in Andalusia.

f) The protection, preservation and management of environmental public domain goods, as cattle track.

g) The authorization of use in the public maritime-terrestrial domain protection easement area and, in general, of the remaining competences concerning coastline management belonging to the Regional Gouvernment of Andalusia assigned, as well as the promotion and development of performances for the integrated and sustainable management and protection of the coastline

h) The integrated management of environmental quality by means of the application and development of prevention and environmental control instruments.

i) The protection and improvement of air, water and land environmental quality by means of the application of quality rules, emission limit values and improvement plans.

j) The planning and development of waste management models that minimize their production at source and promote their

k) The promotion of environmental management instruments and volunteer mechanisms for the exercise of a shared responsibility aimed at improving environmental quality.

1) The development and promotion od performaces related to the normalization of environmental information, the access to environmental information and public participation in environment-related subjects

m)The programming, promotion and boost of environmental education and awareness-rising activities, thus favouring the social and recreational use of the natural patrimony.

n) The regulation, development and application of the environmental responsibility and environmental damages reparation

ñ) The exercise of the competences of the Autonomous Community of Andalusia concerning waters. The protection and recovery of the water's whole cycle and the promotion of its sustainable, e. cient and responsible use in favour of common interest. The authorizations and concessions in public hydraulic domain and associated areas and, in general, the exercise of the competences corresponding to the Water Administration according to the in-force legislation in Andalusia.

o) The development, monitoring and assessment of the Andalusian strategy on sustainable development.

p) The planning and development of performances aimed at consolidating sustainable cities and a sustainable urban deve-

q) The planning and development of performances aimed at consolidating sustainable cities and a sustainable urban development model

From own funds (self-financing)

ERDF

Cohesion

From European funds

200,683,285 €

r) The integration of environmental aspects in the sectorial policies of the Regional Gouvernment of Andalusia

Investments of the Regional Ministry of

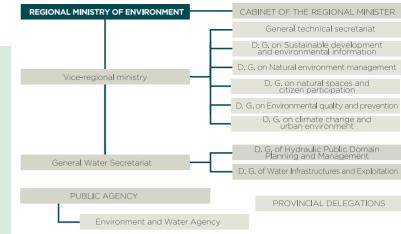
319,941.550 €

11,539,365 €

s) All those competences expressly attributed to it by other rules

Environment 2011

41 063 216 €



Collegiate body of social participation:

Environment and Biodiversity

- Andalusian environment council
 Andalusian biodiversity council
- · Biodiversity and environment provincial levels

- Andalusian Water Council
 Commissions exploitation of transfers •Water Comissions of the Hydrographic Districts

Natural Areas:

- Governing boards
 Governing boards of foundations
 Participation councils
 Andalusian wetlands committee
- Committee of Biosphere Reserves

International cooperation projects

INTERREG IV - EUROPEAN TERRITORIAL COOPERATION (2007-2013)

Interreg IV A: Cross-border Cooperation

Operating program of cross-border cooperation Spain-Portugal

- Cross-border territorial action for the preservation of the Iberian lynx (IBERLINX 2)
- Development and harmonization in Spain and Portugal of new indicators, methodologies and strategies for the application of the Water Framework Directive in transition and coastal water bodies of the Guadiana river
- · Guadiana routes: Project of tourist structuration of patrimonial, cultural and natural off er in the cross-border area of the Guadiana river (GUADITER)
- Sustainable Tourism in the Low Guadiana river (UADITURS)

Interreg IV B: Transnational Cooperation

MED program (Spain, Portugal, France, Italy, Malta, Slovenia, Croatia, Bosnia and Herz., Albania, Greece

- Common strategy of regional action against the erosion of the coastline and the eff ects of climate change for a sustainable coast planning in the Mediterranean basin (COASTANCE)
- · Creation of a network for the reinforcement and improvement of the establishment of the Mediterranean Integrated Pollution Prevention and Control (MED-IPPC-NET)
- Techno-environmental Platform of the Agro-food sector in the Mediterranean (AGROEN-VIRONMED)
- Network Marine Protected Areas in the North Mediterranean (MedPAN NORTH)
- Territory, landscape and renewable energies (ENERSCAPES)

Atlantic program (UK, Ireland, Spain, Portugal and France):

• Response and prevention of Atlantic regions' coastal pollution response (ARCOPOL)

SUDOE program (Spain, Portugal and France):

- Culture of forest fi re risk in forest-population interface areas (PYROSUDOE)
- Water and Territories (WAT)
- Adaptation to climate change eff ects (ADAPTACLIMA)

Interreg IV C: European Interregional Cooperation (UE 27 + Switzerland and Norway)

- . Common information for European air (CITAIR 2)
- · Network of European regions for eco-innovation (ECREIN+)
- · Biodiversity and natural heredity prevention (PERIURBAN)

EUROPEAN NEIGHBOURHOOD AND PARTNERSHIP INSTRUMENT (2007-2013)

Operating program of cross-border cooperation Spain-Outside borders (POCTEFEX): (Spain and Morocco)

- · Integral development (agricultural, rural, environmental, cultural and artistic) within the scope of the Intercontinental Biosphere Reserve of the Mediterranean (INTERGRARBIM)
- Recovery of endangered traditional crafts in Andalusia and Morocco (ROAPE)
- Program of technological transference concerning waters (PROTTMA 3)



ANDALUSI

EAGGF-EAFRD

Others funds

Directory of the Regional Ministry of Environment of the Junta de Andalucía

Central Headquarters

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Information services

- Regional Ministry of Environment Web Site: http://www.juntadeandalucia.es/medioambiente E-mail: buzondelciudadano.cma@juntadeandalucia.es
- Service of Information and Environmental Prospective: Tlf: (+34) 955 625 871 / sipa.dgdsia.cma@juntadeandalucia.es.
- REDIAM Channel:
- http://www.iuntadeandalucia.es/medioambiente/site/web/rediam Andalusian Climate Change Portal:
- http://www.juntadeandalucia.es/medioambiente/site/pacc

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Environment and Water Agency

Regional Ministry of Agriculture and Fishing.

[14] Regional Ministry of Tourism, Commerce and Sport.

of Statistics and Regional Ministry of Environment.

Business association for the protection of plants (AEPLA)

Ecovidrio, Ecoembes and Regional Ministry of Environment.

[16] Sustainable Cities and Towns Campaign, Ministry of Environment and Rural and Marine A airs, Spanish Federation of Towns and Provinces (FEMP),

[18] Regional Ministry of Education and Regional Ministry of Environment.

Andalusian Institute of Statistics and Regional Ministry of Environment.

Andalusia Federation of Towns and Provinces (FAMP), Andalusian Institute

[17] Andalusian Institute of Social Studies (IESA-CSIC) and Regional Ministry of Environment.

Andalusian Energy Agency. Regional Ministry of Economy, Innovation and Science.

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Information sources

- []] Furostat.
- Spanish National Institute of Statistics (INE).
- Andalusian Statistics and Cartography Institute (IECA), Regional Ministry of Economu, Innovation and Science.
- Regional Ministry of Public Works and Transports.
- Encyclopaedia of Andalusia and Ministry of Agriculture, Fishing and Food (*) Spanish national meteorological agency (AEMET) and Regional Ministry of Environment.
- Spanish Ministry of Environment and Rural and Marine Affairs, (*) and Regional Ministry of Environment.
- [8] Regional Ministry of Health of Junta de Andalucia.
- European Foundation for Environmental Education Association of Environmental and Consumer Education (EFEE-ADEAC)
- [10] Spanish Ministry of Environment and Rural and Marine Affairs. (*)
- (*) Current Spanish Ministry of Agriculture, Food and Environment.
- [20] Regional Ministry of Economy, Innovation and Science.

The information whose source is not mentioned corresponds to the Environmental Information Network of Andalusia (REDIAM) of the Regional Ministry of Environment of the Junta de Andalucía.



