

REGIONAL MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING



Basic Environmental Data of Andalusia

2013



European Union

European Regional
Development Fund

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The digital version of this document is also available and can be downloaded from the Regional Ministry of Environment and Spatial Planning website.

www.juntadeandalucia.es/medioambiente




ecoedición

[pilot project]

Environmental impacts

Fossil resource depletion	Ozone layer depletion	Carbon footprint
 0,27 kg fossil fuel eq 6,03 %	 5,99E-08 kg CFC · 11eq 0,10 %	 0,93 kg CO ₂ eq 3,04 %

Impact referred to the average environmental impact of a European citizen per day

ecoedicion.eu JUNTA DE ANDALUCIA REGIONAL MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING LIFE08 ENVIE/000124

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In the upper corner of the page 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 and Spatial Planning'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 give 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 extension of Andalusia (km ²)	87,597.7
Length of the Andalusian coastline (km)	1,101
Population of Andalusia (inhab.), 2012	8,449,985
Percentage of Andalusian population as regards Spain (%)	17.88
Percentage of Andalusian population as regards EU-27 (%)	1.68
Population density in Andalusia (inhab./km²)	96.46
Spain 2012 (inhab./km ²), 2012	93.41
EU-27 2011 (inhab./km ²), 2011	116.92
Aging rate in Andalusia (% pop. > 65 years old)	15.42
Distribution of andalusian population per territorial domains, 2012 (%)	
Coastal areas	38.53
Sierra Morena-Los Pedroches	2.83
Baetic Mountain Ranges and Valleys	16.89
Guadalquivir Valley	41.75

POPULATION IN ANDALUSIA [3][4]

Distribution of Andalusian population per municipality size 2012		
	Nº of municipalities	Population (%)
Less than 5,000 inhab.	510	0.07
Between 5,000 and 20,000 inhab.	180	23.92
Between 20,000 and 50,000 inhab.	52	19.24
Between 50,000 and 100,000 inhab.	17	16.72
More than 100,000 inhab.	12	40.06
Total of municipalities	771	

Population of Urban Agglomerations in Andalusia, 2010

	Population (inhab.)
Population of the eight urban agglomerations linked to provincial capitals	4,404,630
Rest of Andalusia	3,966,345

* See information sources on the back cover.

MAIN ANDALUSIAN TOWNS (> 100,000 INHAB.) [3]

I. ENVIRONMENTAL ELEMENTS AND FACTORS				
	Evolution	Situation	Trend	Indicator
Climate	↓	😊	↓	Global warming index
Water	↓	😊	↓	Water balance
	↑	😊	↑	Waste water sanitation and treatment
	—	😊	↑	Inland bathing Water Quality
	↓	😊	—	Surface Water Quality
	↓	😊	—	Groundwater quality
Waste management	↓	😞	—	Urban waste production
	↓	😊	↑	Urban waste Treatment in Andalusia
	↑	😊	—	Selective collection in Andalusia
	↑	😊	↑	Containers for urban waste collection
	↑	😊	↑	Declared production of hazardous waste in Andalusia
	↑	😊	↑	Number of hazardous waste treatment and/or storage facilities
Energy	↓	😞	↑	Primary energy consumption in Andalusia
	↑	😊	↑	Final energy consumption per energy sources and activity sectors
	↑	😊	↑	Evolution of the Renewable Energies Development Index

II. NATURAL ENVIRONMENT EVALUATION AND MANAGEMENT				
	Evolution	Situation	Trend	Indicator
Soil and desertification	↓	😞	❓	Evolution of soil erosion
Vegetation and drought	—	😞	—	Average Vegetation Index. Hydrological period 2011–2012
Land cover and land use changes	↓	😞	↓	Built and altered surfaces land cover
	↓	😞	↓	Agricultural surfaces land cover
	↓	😞	↓	Forest and natural areas land cover
	↓	😞	↓	Waters and wetlands land cover
Biodiversity	↑	😊	↑	Monitoring of catalogued flora and flora of interest
	↓	😞	—	Germplasm recollection at the Vegetal Propagation Laboratory
	↑	😞	↓	Wildlife census in Andalusia
	—	😊	—	Admission of animals in endangered Species Recovery Centres.
Natural Areas Network and green corridors	↑	😊	—	Protected surface in Andalusia
	↑	😊	↑	Public use facilities in the Protected Natural Areas Network of Andalusia
	↑	😞	—	Cattle Track marking
Forest environment initiatives and exploitations	↑	😞	↑	Forest fires
	↑	😞	↑	Phytosanitary state of forest areas
	↑	😊	↑	Monitoring of forest damage
	↑	😞	—	Hunting and recreational fishing activity
	↑	😞	—	Exploitation of public forests



III. ENVIRONMENTAL QUALITY EVALUATION AND MANAGEMENT				
	Evolution	Situation	Trend	Indicator
Quality of coastal waters	↑	☹️	↑	Polluting load of urban effluents along the coast
	↑	😊	↑	Polluting load of industrial effluents along the coast
Air quality	↑	😊	—	Emissions of tropospheric ozone precursor gases in Andalusia
	↑	😊	—	Air quality index for selected stations

IV. URBAN ENVIRONMENT, PRODUCTIVE FABRIC AND PLANNING				
	Evolution	Situation	Trend	Indicator
Environment and the city	↓	😊	—	Electricity consumption in Andalusian cities
	↓	😊	—	Urban waste production in Andalusian cities
	↑	☹️	—	Housing Stock of Andalusia: Social housing and household renovations in Andalusian cities
	—	☹️	—	Proximity to green areas
Environmental Planning and Integration	↑	☹️	—	Grant of Integrated Environmental Authorizations
	—	😊	—	Fertilizers consumption
	↑	😊	↑	Evolution of the organic farming surface in Andalusia
	↑	☹️	—	Mobility and accessibility
European programs and initiatives	—	😊	↑	Territorial intensity of tourism activities in Andalusia
	↑	☹️	—	EU funding managed by the Ministry of Agriculture, Fisheries and Environment in international cooperation projects.

V. RESEARCH, INFORMATION AND PARTICIPATION				
	Evolution	Situation	Trend	Indicator
Environmental information and research	↑	😊	↑	Ensuring dissemination and access to environmental information
Social perception of environmental issues	↑	😊	↑	Citizen perception of the evolution of the environment in Andalusia
Environmental education and volunteering	↑	😊	↑	Participation in environmental education programs ALDEA
	↑	😊	↑	Participation in training programs at environmental education centres
	↑	☹️	↑	Participants in environmental volunteering programs
	↑	☹️	—	Hours of voluntary work in environmental volunteering programs

The environmental assessment of each indicator is made by considering three aspects: the evolution, the status and the trend. The evolution refers to the progress of an indicator over time. The status refers to an indicator's current state. 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:

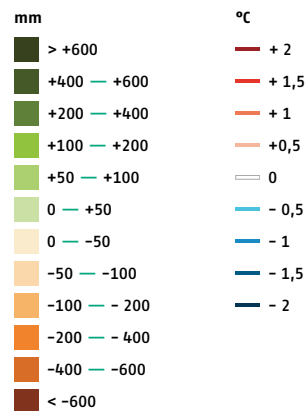
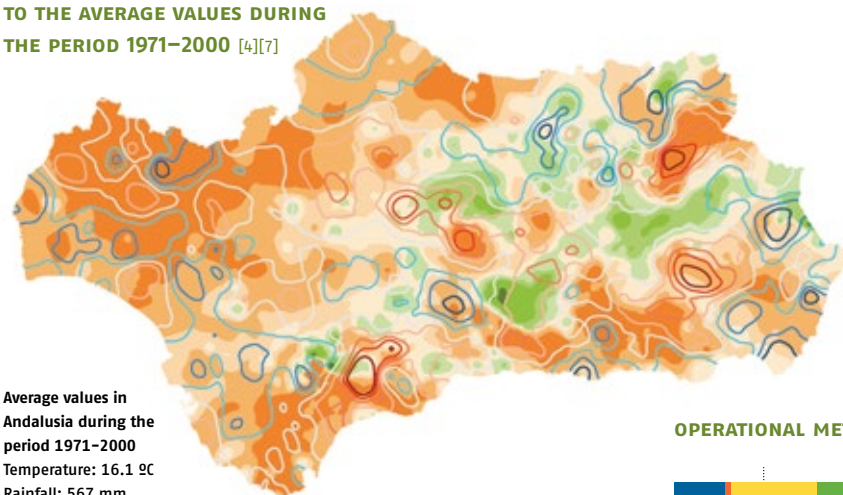
These indicators are selected from the set of environmental indicators included in the Annual Reports on the Environment in Andalusia 2011 and 2012 by the Regional Ministry of Environment and Spatial Planning of the Junta de Andalucía.

Legend	
↑	Favourable evolution or trend
↓	Adverse evolution or trend
—	Stable evolution or trend
😊	Favourable current situation
☹️	Adverse current situation
☺️	Stable current situation
?	Absence of data or insufficient data

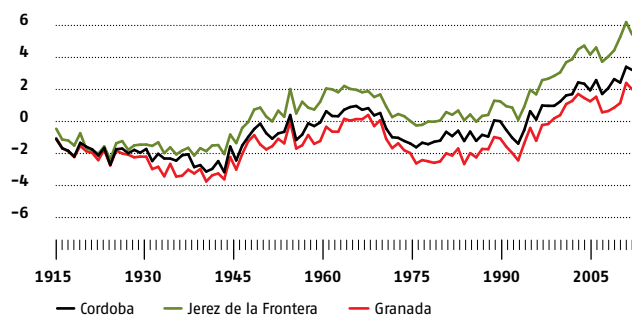
CLIMATIC CHARACTERIZATION OF THE LARGE GEOGRAPHIC AREAS IN ANDALUSIA [6]

Geographic areas	Climate type	Annual average temperature (°C)	Annual average rainfall (l/m ²)	Annual Nº of rainy days	Nº of months within dry period	Annual temperature range (°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 depression	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

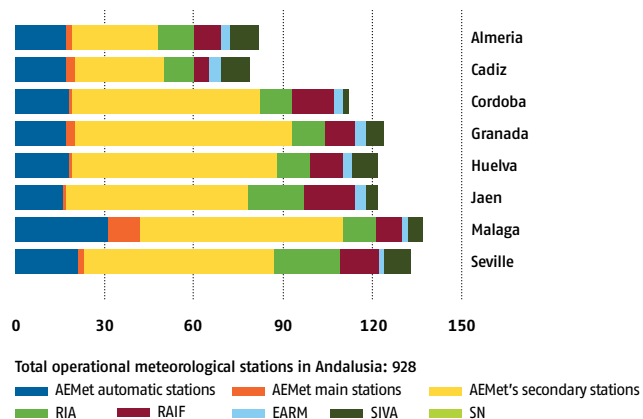
TOTAL RAINFALL DEVIATIONS AND AVERAGE TEMPERATURES IN 2012 COMPARED TO THE AVERAGE VALUES DURING THE PERIOD 1971-2000 [4][7]



GLOBAL WARMING INDEX MEASURED AT REFERENCE STATIONS IN ANDALUSIA, 1915-2012



OPERATIONAL METEOROLOGICAL STATIONS, 2012



AEMet: Spanish Meteorological Agency; RIA: Agroclimatic Information Network; RAIF: Phytosanitary information and alert network; EARM: Support network for the INFOCA Plan; SIVA: Surveillance of Air Quality Network; SN: Sierra Nevada Station Network.

COMPARISON OF THE EVOLUTION OF GREENHOUSE GASES (GHG) BETWEEN SPAIN AND ANDALUSIA [4][8]

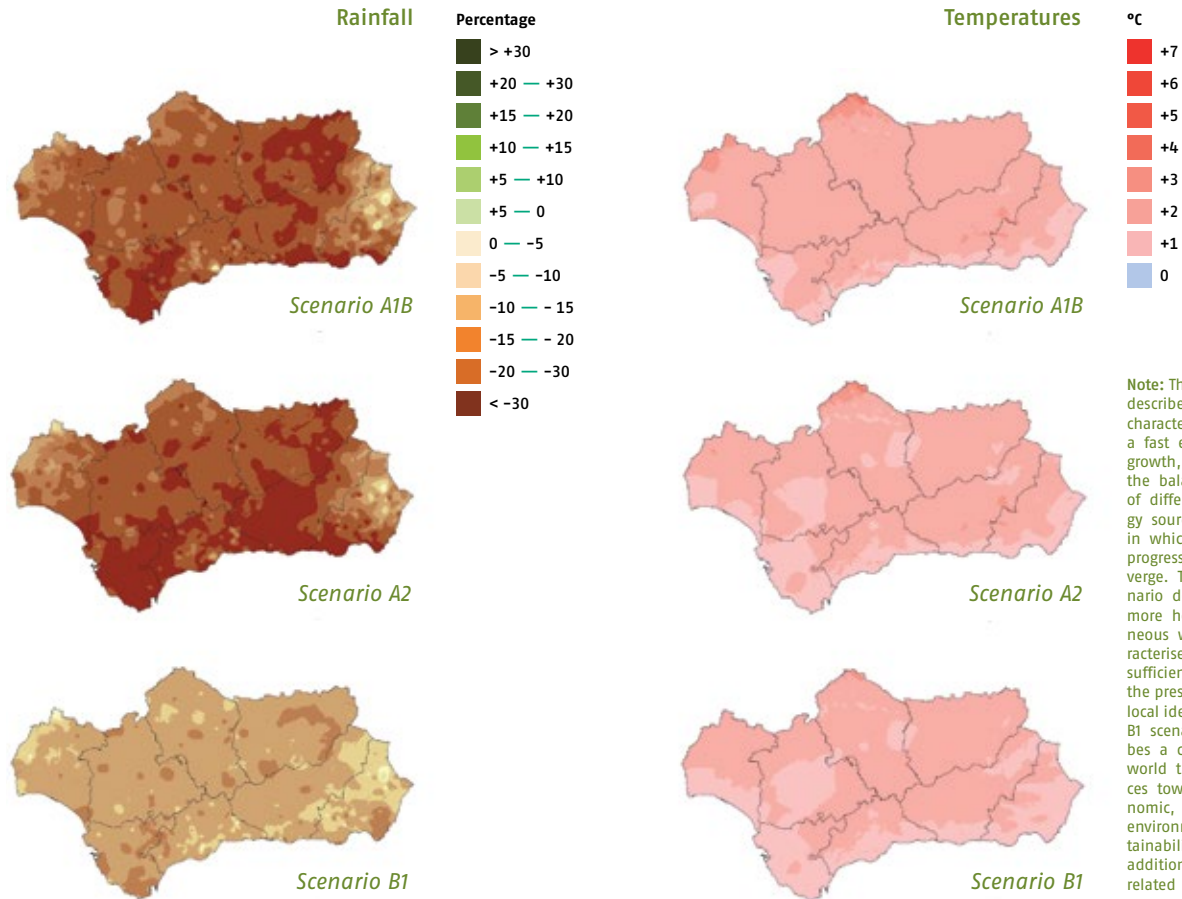
	1990	2005	2006	2007	2008	2009	2010
Total emissions in Spain (ktCO ₂ eq) (1)	285,054	435,428	427,227	436,327	403,819	366,266	355,898
Total emissions in Andalusia (ktCO ₂ eq) (1)	36,627	66,225	65,626	67,252	58,320	56,412	55,386
Industrial Sector Emissions in Andalusia (ktCO ₂ eq) (2)	-	32,346	31,764	33,447	27,234	25,645	-
Diffuse Sector Emissions in Andalusia (ktCO ₂ eq)	-	33,480	33,592	33,801	30,955	30,330	-
Total emissions in Spain per inhabitant (tCO ₂ eq/hab)	7.23	9.86	9.56	9.71	8.79	7.84	7.57
Total emissions in Andalusia per inhabitant (tCO ₂ eq/hab)	5.25	8.32	8.15	8.27	7.05	6.71	6.62

(1) Gross emissions data, without subtracting carbon sinks.

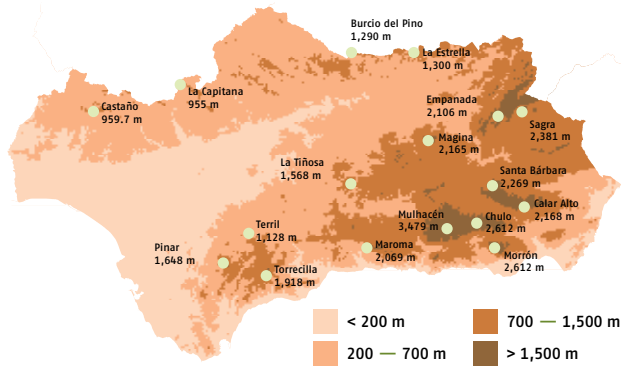
(2) Industrial sector refers to facilities of the European Union Emissions Trading System (EU ETS).

No data: "--".

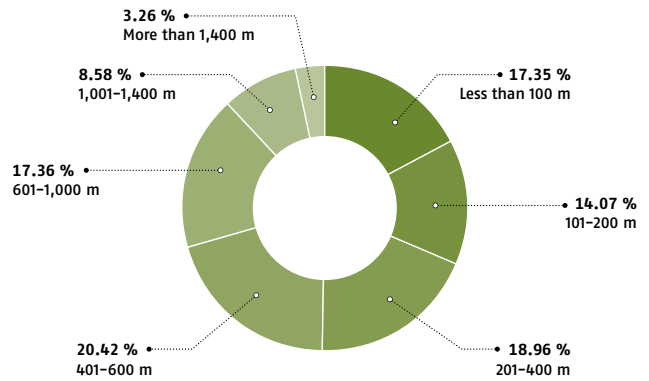
CLIMATE SCENARIOS IN ANDALUSIA: FORESEEN VARIATIONS FOR THE 2041-2070 PERIOD WITH REGARD TO HISTORICAL SERIES



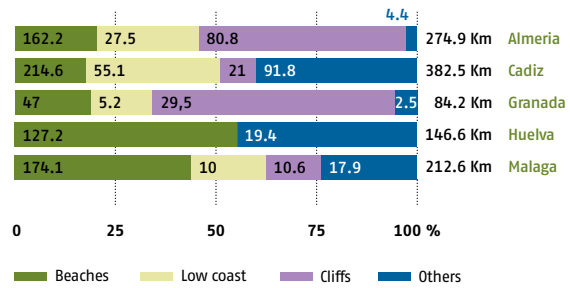
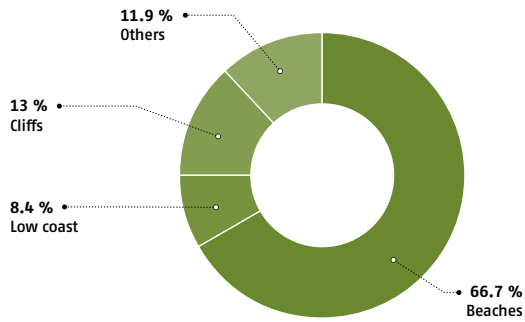
HYPSEMOMETRY [3]



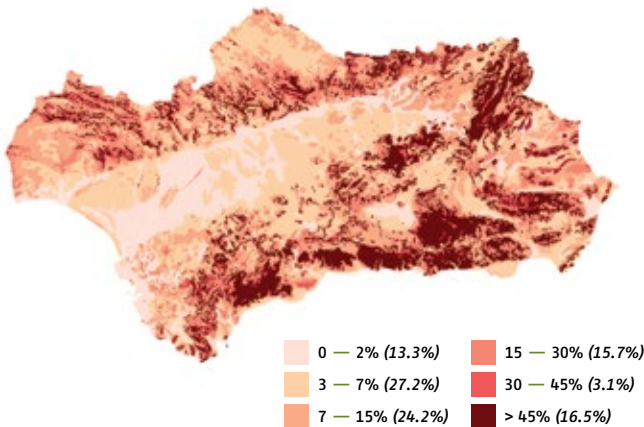
SURFACE AREA OF ANDALUSIA ACCORDING TO ALTITUDE [3]



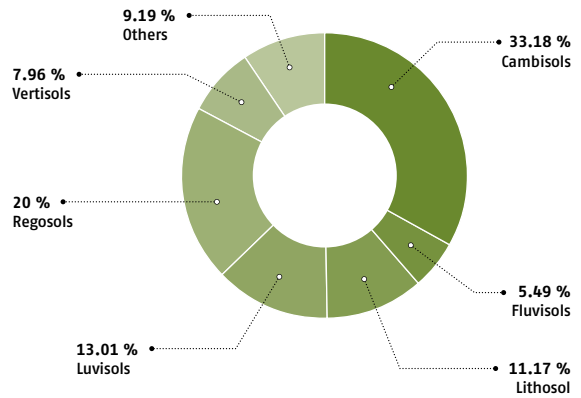
PHYSICAL CHARACTERIZATION OF THE ANDALUSIAN COASTLINE



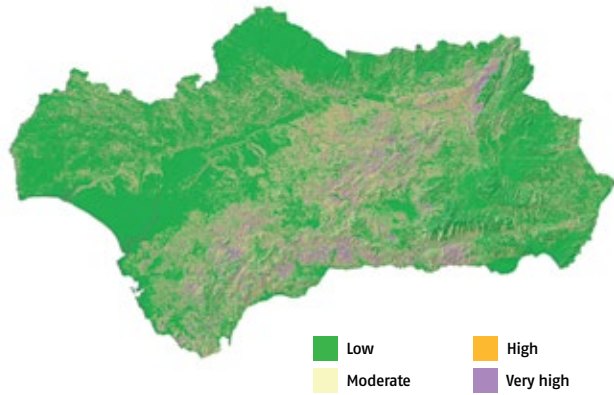
SLOPES [3]



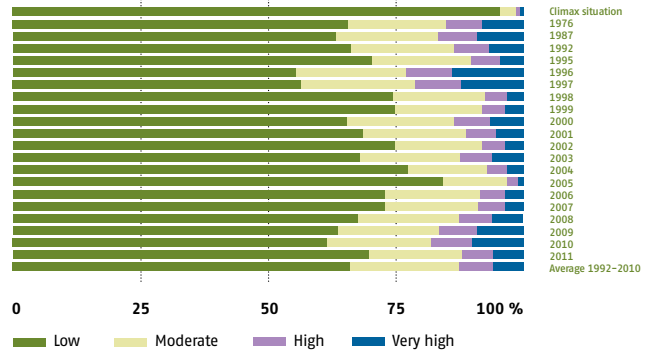
CHARACTERIZATION OF SOILS IN ANDALUSIA



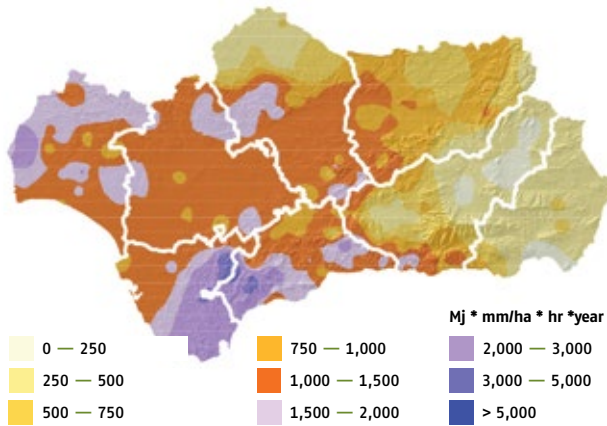
ESTIMATION OF SOIL EROSION IN ANDALUSIA 2011



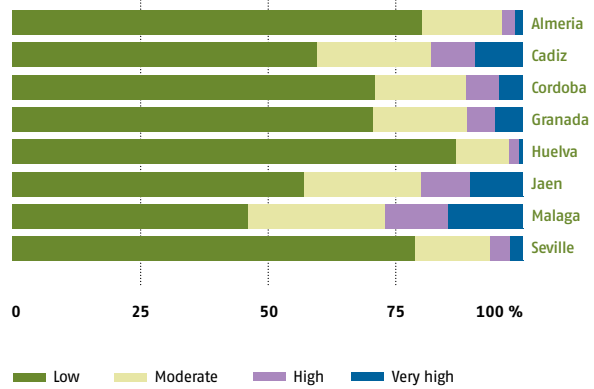
EXTENSION OF ANDALUSIA AFFECTED BY SOIL EROSION. EVOLUTION



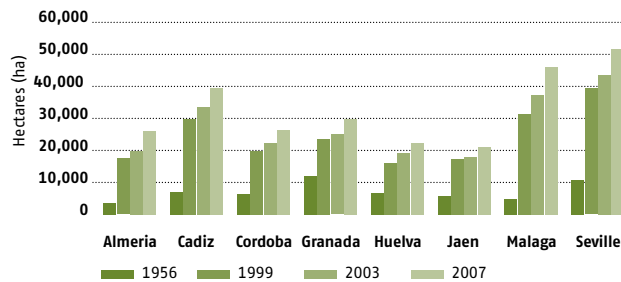
EROSIVITY IN ANDALUSIA 2011



EXTENSION OF ANDALUSIA AFFECTED BY SOIL EROSION PER PROVINCE 2011



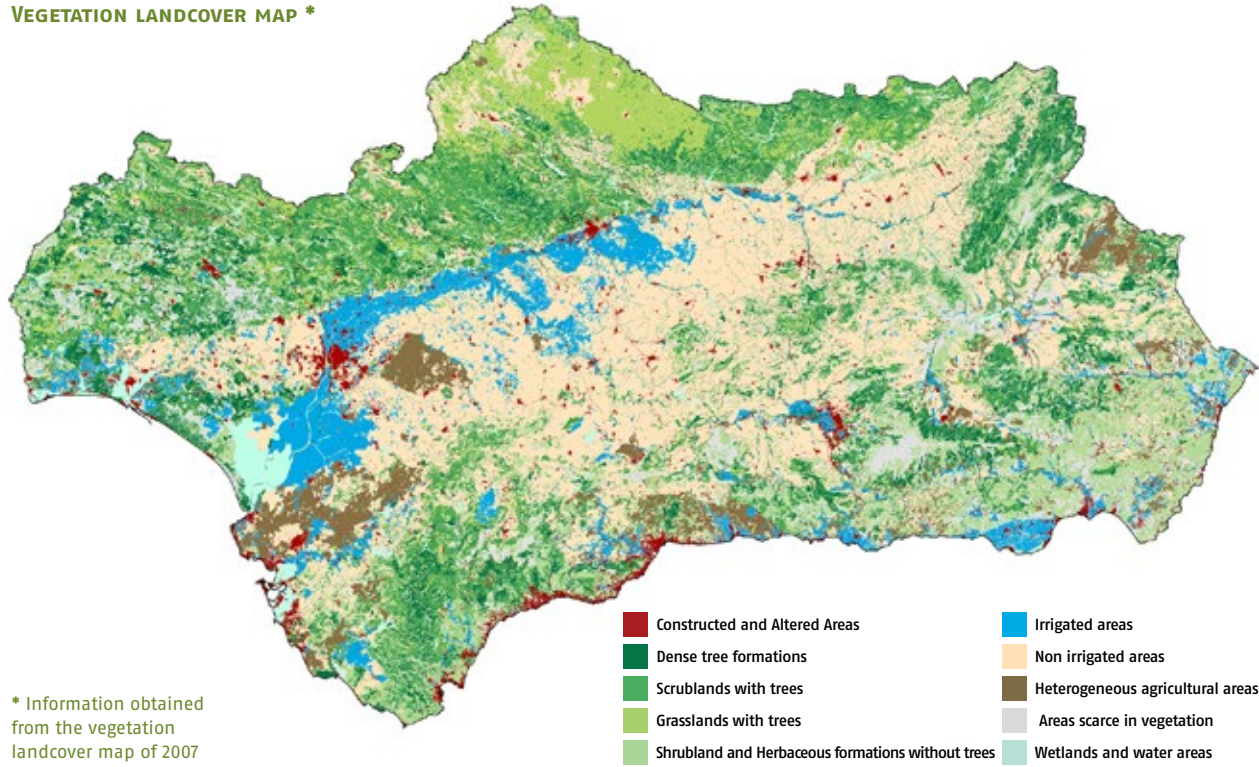
EVOLUTION OF THE URBAN SURFACE IN ANDALUSIA PER PROVINCE



EVOLUTION OF THE MAJOR LANDSCAPE AREAS IN ANDALUSIA



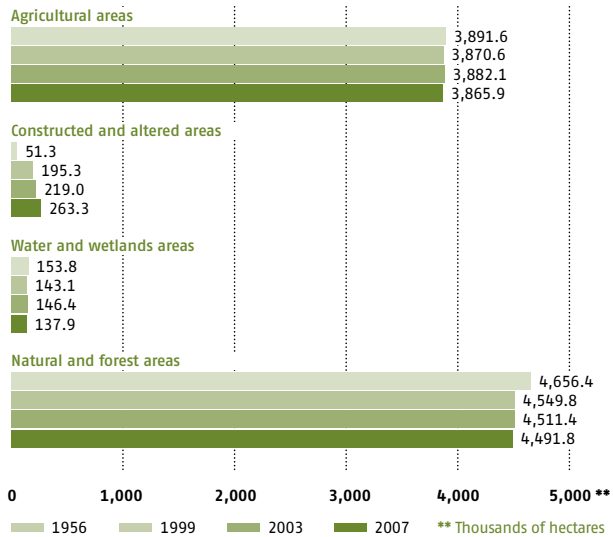
VEGETATION LANDCOVER MAP *



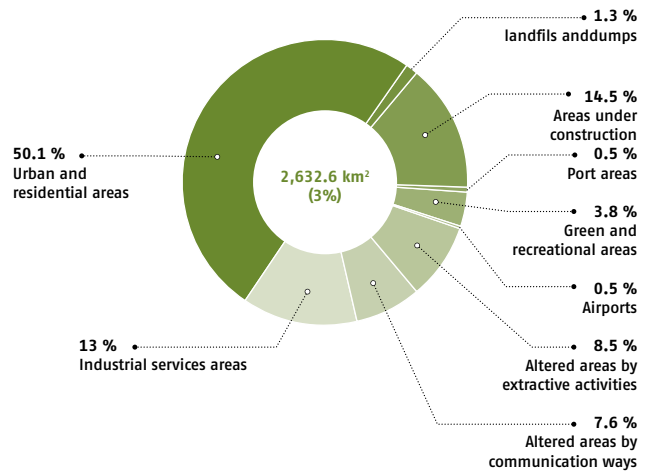
* Information obtained from the vegetation landcover map of 2007

- Constructed and Altered Areas
- Irrigated areas
- Dense tree formations
- Non irrigated areas
- Scrublands with trees
- Heterogeneous agricultural areas
- Grasslands with trees
- Areas scarce in vegetation
- Shrubland and Herbaceous formations without trees
- Wetlands and water areas

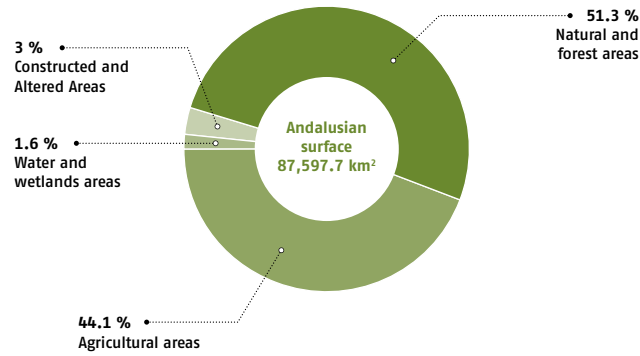
LANDCOVER EVOLUTION IN ANDALUSIA *



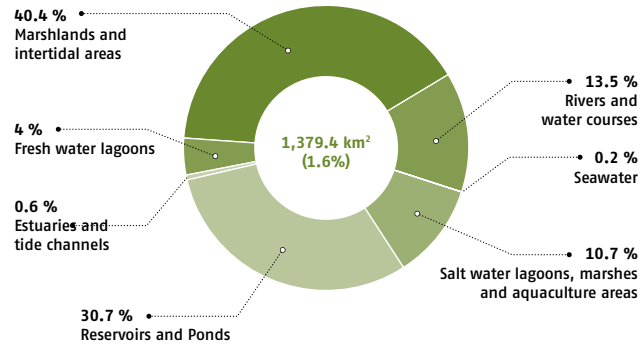
CONSTRUCTED AND ALTERED AREAS *



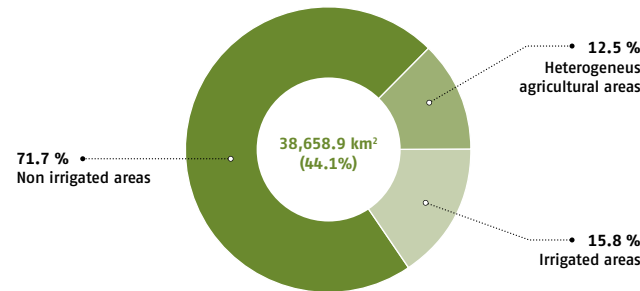
GENERAL DISTRIBUTION OF LAND COVER *



WATER AND WETLANDS AREAS *

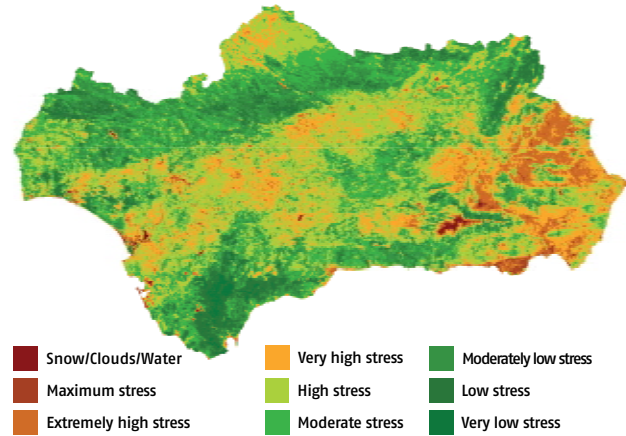


AGRICULTURAL AREAS *

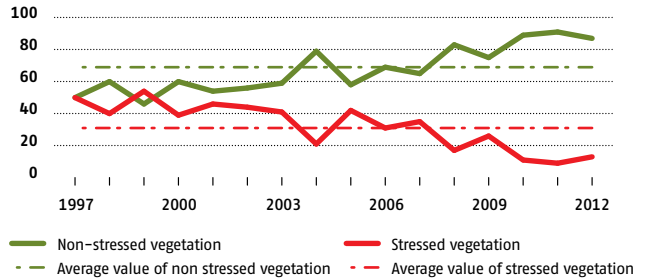


Remarks: Heterogeneous agricultural areas (5.5%): crops with space for natural vegetation (2.6%) and mosaics of irrigated and unirrigated crops (3%). Irrigated surfaces (7%): ricefields (0.5%), irrigated arable crops (4.2%), woody crops and irrigated mosaics (1.7%) and greenhouses (0.6%). Non irrigated surfaces (31.6%): non irrigated arable crops (12.3%), olive groves (16.6%), vineyards (0.3%) and other unirrigated woody crops and mosaics of arable and woody crops (2.4%).

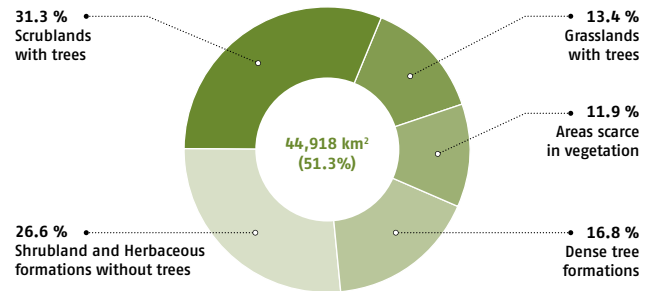
AVERAGE VEGETATION INDEX. HYDROLOGICAL PERIOD 2011-2012



PERCENTAGE OF THE REGIONAL TERRITORY WITH STRESSED AND NON STRESSED VEGETATION



NATURAL AND FOREST AREAS *



Remarks: Dense tree formations (8.6%): conifers (3.8%), eucalyptus (0.6%), quercinae (2.2%), other leafy trees (0.6%) and riparian formations (1.4%). Shrublands with trees (16%): coniferous and scrubland (4.7%), eucalyptus and scrubland (0.9%), quercinae and scrubland (8.8%) other leafy trees and mixtures scrubland (1.8%). Grasslands with trees (6.9%): quercinae and grassland (6.1%) and other leafy trees and scrubland grassland (0.7%). Shrubland and Herbaceous formations without trees (13.6%): dense shrubland (4.7%), disperse shrubland (6.5%) and pasturelands (2.4%). Areas scarce in vegetation: destroyed by fire (6.1%); burnt areas (0.2%), other areas scarce in vegetation (5.5%), beaches, dunes and Sandpits areas (0.1%) Grgs and Mountain peaks (0.4%).



WATER RESOURCES IN ANDALUSIA, 2012



- Hydrographic network
- Hydrographic basins
- ▲ Risk of marine intrusion
- Existing dams (84)*
- Dams under construction (2)*
- Dams being studied (1)*
- Non conventional resources**
- Debrining plants (2)*
- Desalination plants (4)*
- ◆ Wastewater treatment plant with reuse (5)*
- Aquifers**
- Detritic aquifers
- Carbonated aquifers
- Interbasin diversions**
- Operational
- In project

* Total amount of infrastructures.

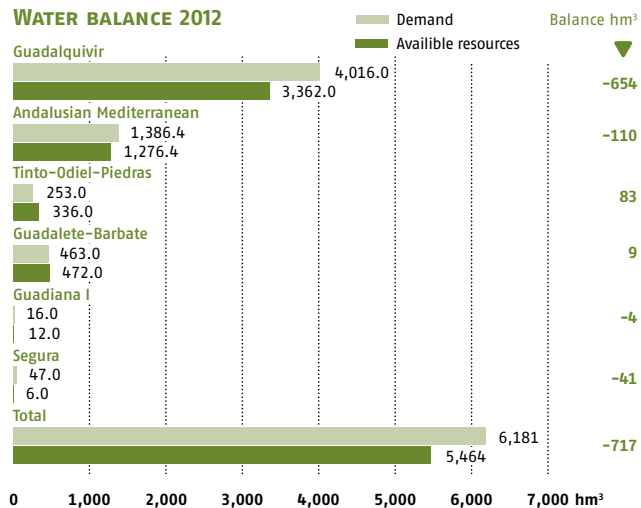
RIVER BASIN DISTRICTS (RBD)



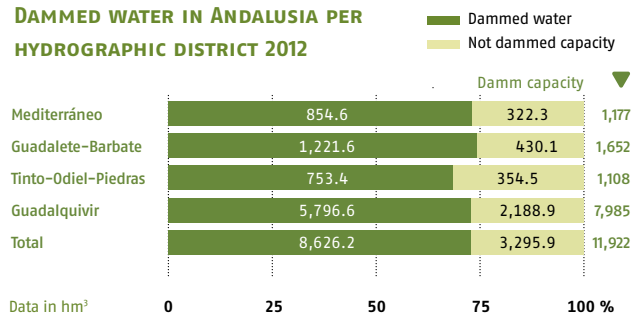
- Andalusian Mediterranean (18)*
- Guadalete-Barbate (6)*
- Guadalquivir (51.5)*
- Spanish part of the Guadiana (5.6)*
- Segura (1.8)*
- Tinto-Odiel-Piedras (4.7)*

* Land area in Andalusia (thousands of km²)

WATER BALANCE 2012



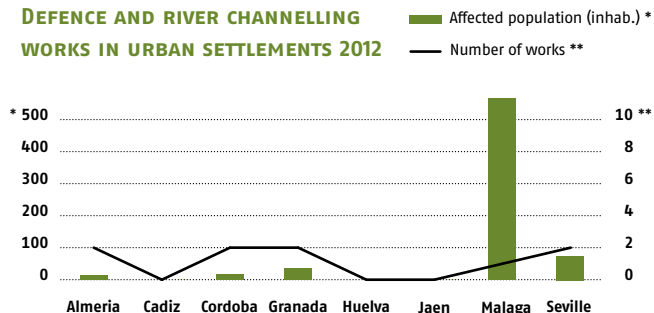
DAMMED WATER IN ANDALUSIA PER HYDROGRAPHIC DISTRICT 2012



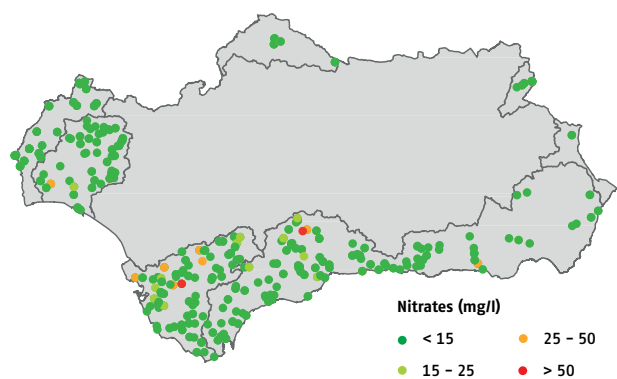
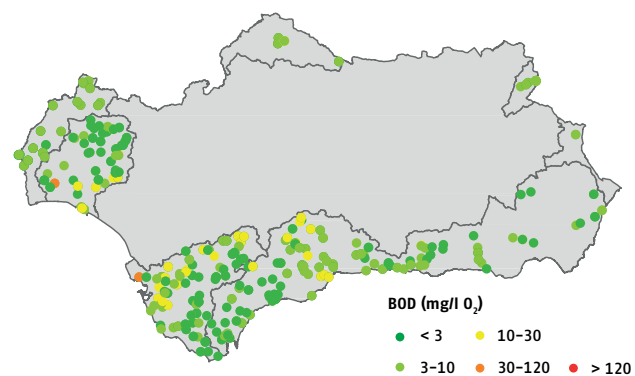
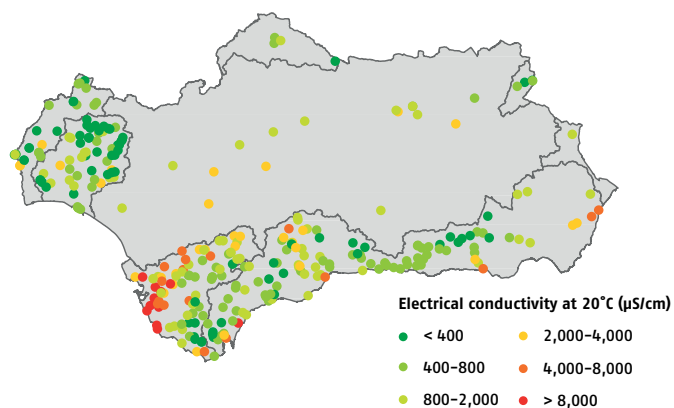
Data in hm³

Andalusia 2013

DEFENCE AND RIVER CHANNELLING WORKS IN URBAN SETTLEMENTS 2012



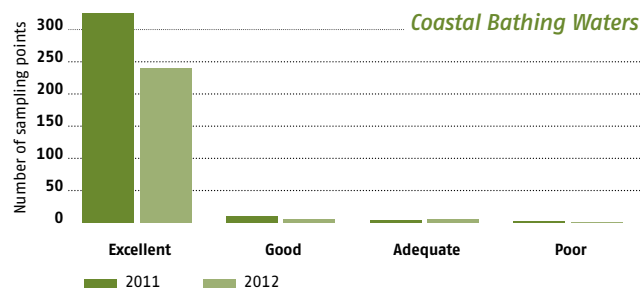
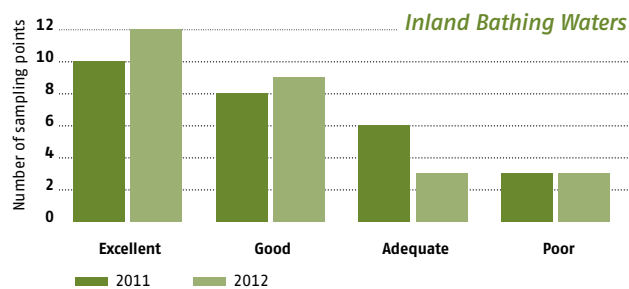
QUALITY OF SURFACE WATERS 2012



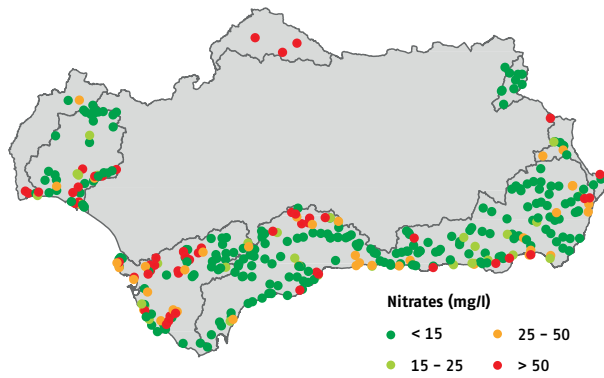
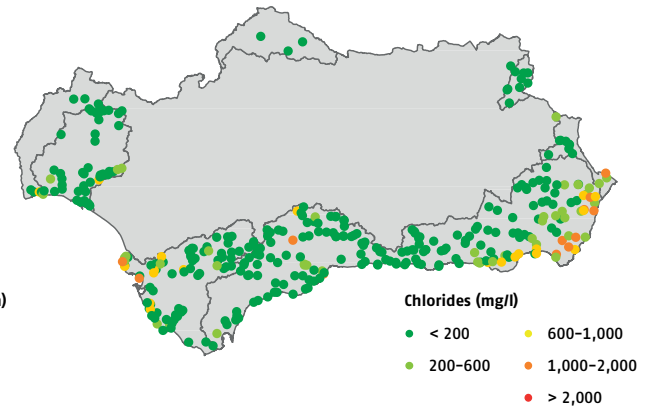
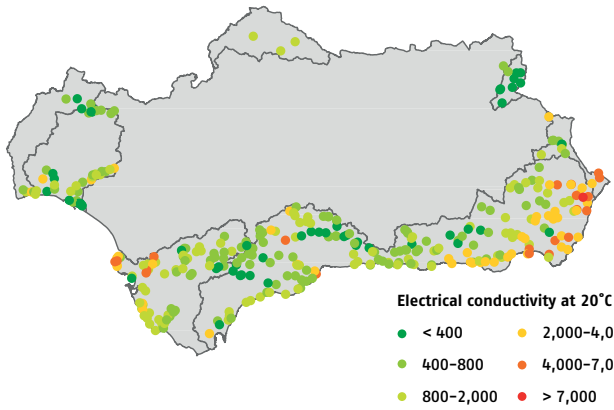
URBAN WASTE WATER TREATMENT PLANTS (UWWTP) IN ANDALUSIA 2012				
Province	Under construction		Operating	
	Number	Equivalent load	Number	Equivalent load
Almeria	1	1,342	135	1,026,256
Cadiz	3	55,748	71	1,918,439
Cordoba	2	17,137	45	1,129,060
Granada	6	21,137	84	977,117
Huelva	7	115,867	64	782,660
Jaen	5	147,438	80	733,816
Malaga	3	15,294	81	2,507,352
Seville	6	65,550	55	2,844,600
Andalusia	33	439,513	615	11,919,300

The term Equivalent load refers to the theoretical number of persons who would generate a wastewater volume equal to adding up the amount produced by the population, the industry, agricultural and livestock activities. The data included in this chart indicates the number of waste water treatment plants (WWTP) either under construction or operational in each one of the urban agglomerations in Andalusia, updated according to the Andalusian Water Purification Strategy 2010-2015.

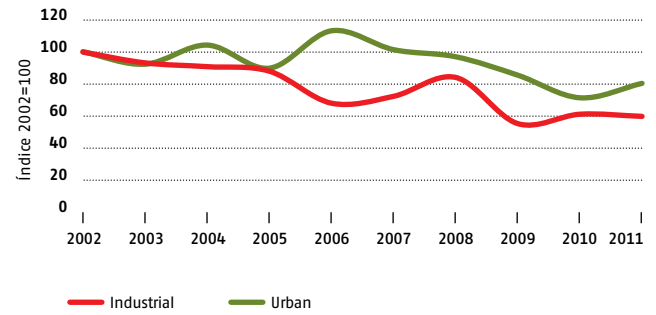
INLAND AND COASTAL BATHING WATER QUALITY [9]



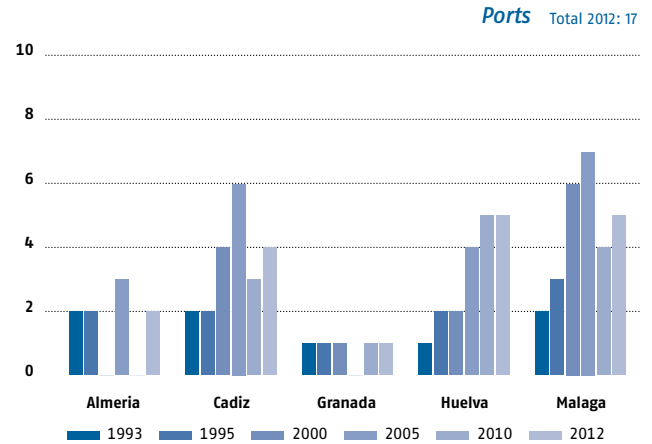
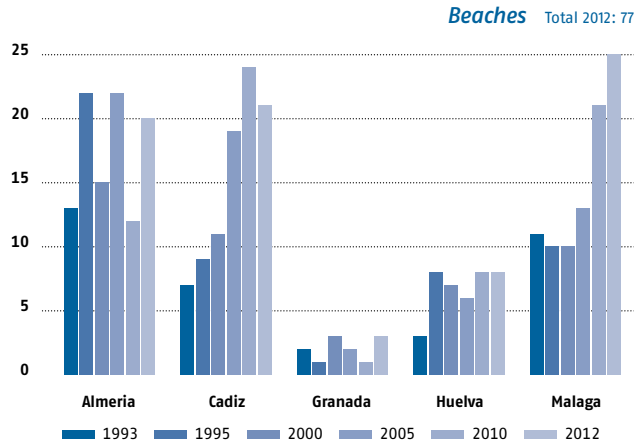
GROUNDWATER QUALITY 2012



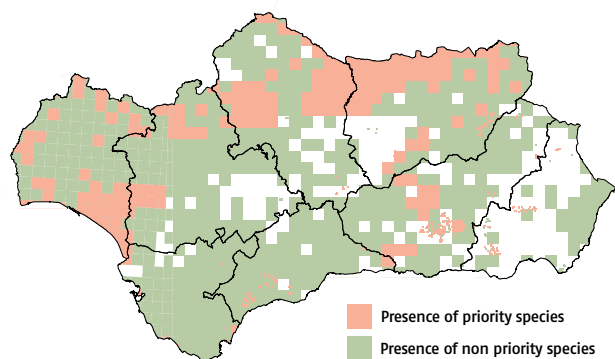
POLLUTION DISCHARGED ALONG THE ANDALUSIAN COASTLINE



BLUE FLAGS GRANTED [10]



SPECIES OF COMMUNITY INTEREST. FLORA AND FAUNA TAXA

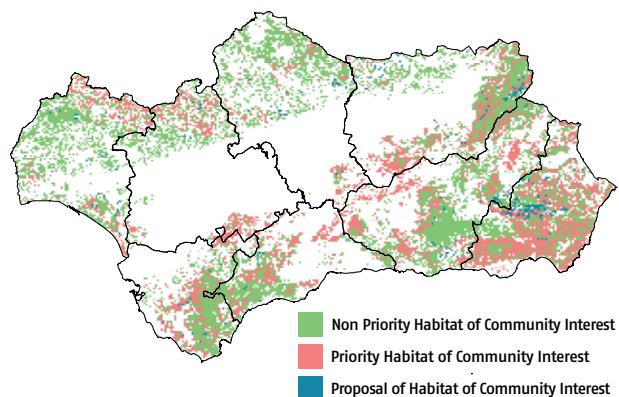


SPECIES OF COMMUNITY INTEREST. FLORA AND FAUNA TAXA

Species present	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 taking into account all the species present in Spain.

HABITATS OF COMMUNITY INTEREST

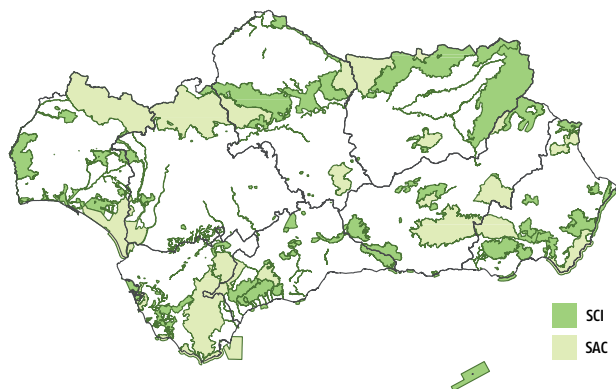


HABITATS OF COMMUNITY INTEREST

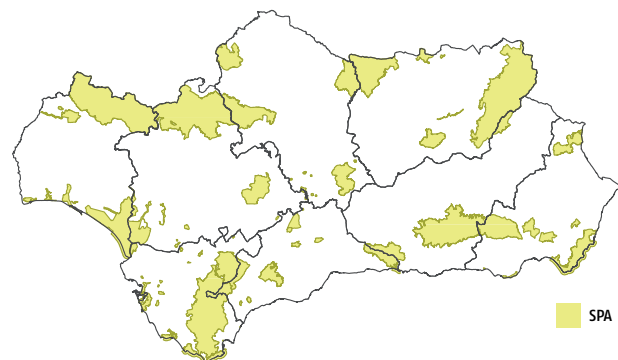
Habitats	Surface (%)*
Non Priority Habitat of Community Interest	23
Priority Habitat of Community Interest	13
Proposal for Habitat of Community Interest	1
Habitat Total Surface	37

* The surface percentages are calculated with regard to the total surface of Andalusian habitats.

SITES OF COMMUNITY IMPORTANCE (SCI) AND SPECIAL AREAS OF CONSERVATION (SAC)



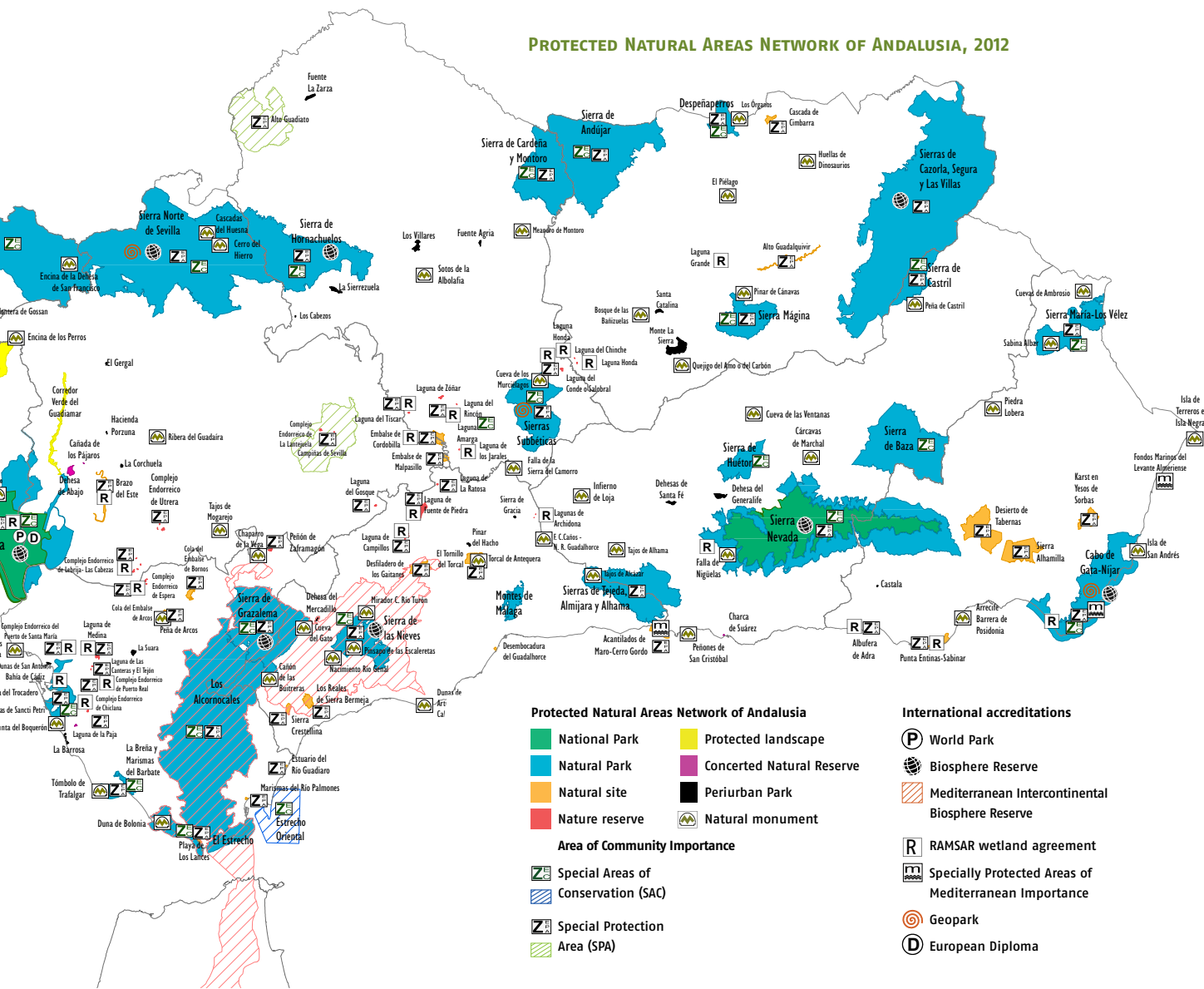
SPECIAL PROTECTION AREAS (SPA)





PROTECTED NATURAL AREAS

PROTECTED NATURAL AREAS NETWORK OF ANDALUSIA, 2012



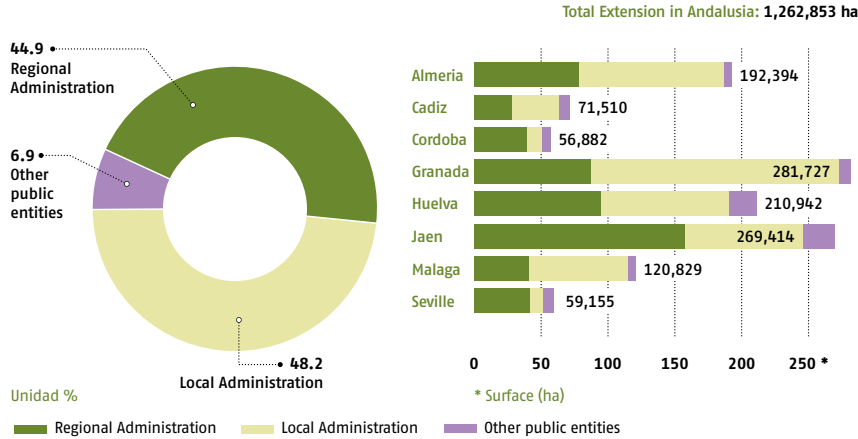
PUBLIC USE FACILITIES IN PROTECTED NATURAL AREAS 2012

Educational activities	Aids to recreation				Sightseeing of natural landscapes	Information		Specialised environmental interpreting		Observation of wild fauna		Protection/ shelter overnight stays			Interpreting routes		Others
11	9	6	124	8	149	39	29	4	12	65	2	8	5	21	28	356	17

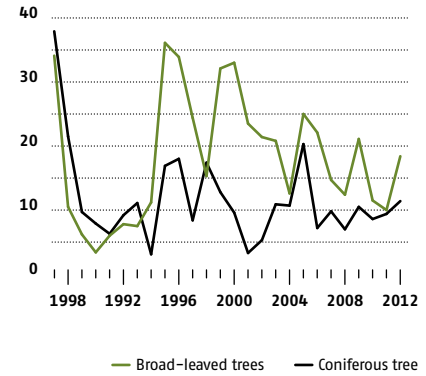
* "Others" includes the following facilities: camping areas, craft houses, bar-restaurant stands and scientific observatories.

Basic data

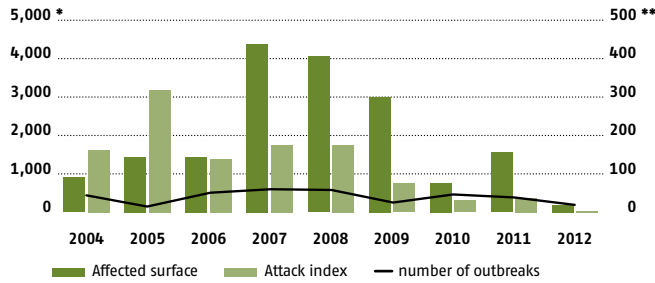
OWNERSHIP OF THE PUBLIC FORESTS OF ANDALUSIA 2011



PERCENTAGE OF TREES DAMAGED BY PLAGUES BY GROUPS OF SPECIES IN SAMPLED PLOTS [8]

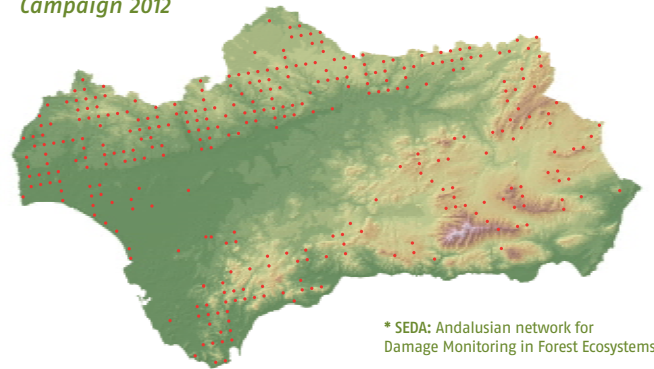


EVOLUTION OF SURFACE AFFECTED BY PINE SHOOT BEETLES, ATTACK INDEX AND NUMBER OF OUTBREAKS

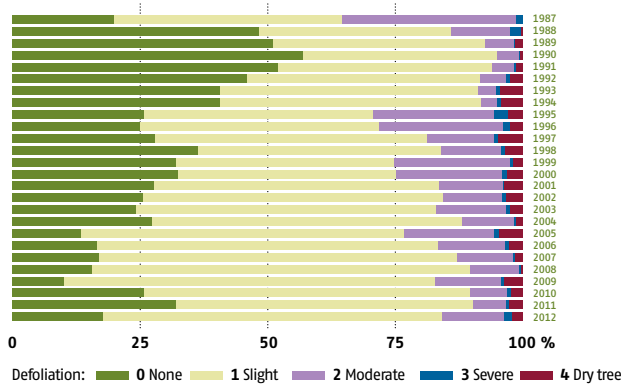


* Surface (ha) ** Attack index (ha)
 Attack index represents the surface of dead trees directly caused by pine shoot beetles

LOCATION OF SAMPLE PLOTS OF SEDA NETWORK* Campaign 2012

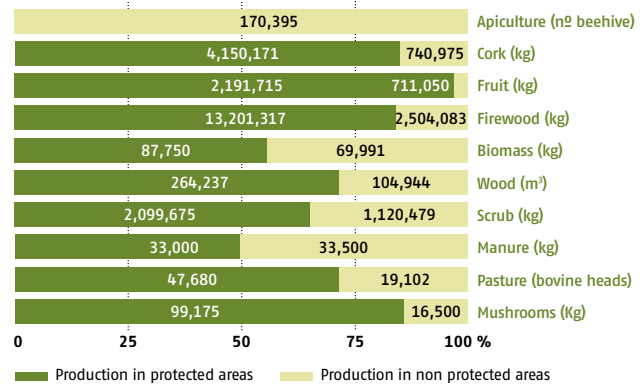


EVOLUTION OF THE PHYTOSANITARY CONDITION OF FORESTS [8]



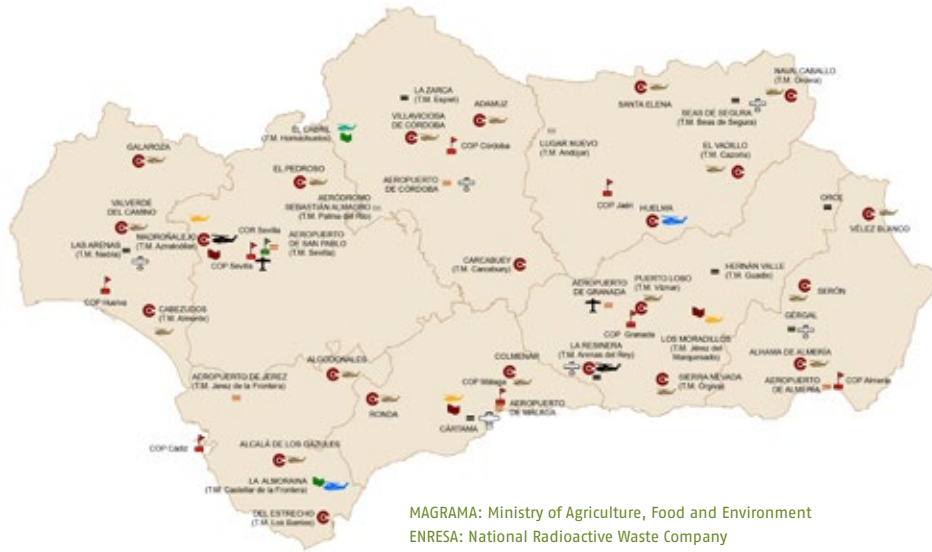
Andalusia 2013

PUBLIC FOREST EXPLOITATIONS IN ANDALUSIA, 2012



INFOCA PLAN DEVICES 2012

Total human resources INFOCA Plan 2012: 4,579



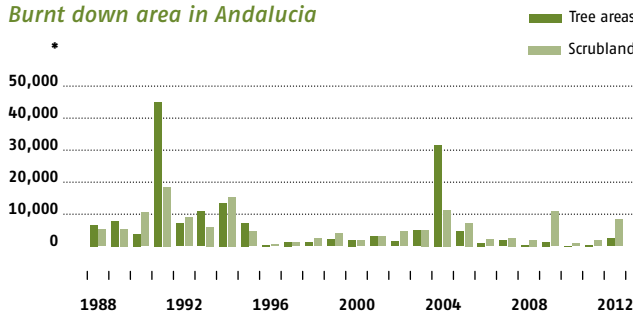
- Forest defence centres (23)*
- Provincial Operational Centres (8)*
- Regional Operational Centres (1)*
- Airfields (8)*
- Other airfields (2)*
- Civil airports (6)*
- Special brigade bases (3)*
- Other support bases (MAGRAMA and ENRESA) (2)*
- Forest defence centre Helicopter (1,000 - 1,200 litres)
- Great capacity helicopter (4,500 litres)
- Great capacity helicopter provided by the MAGRAMA (4,500 litres)
- Support Brigade Helicopter (1,000 - 1,200 litres)
- Support helicopter provided by ENRESA (900 litres)
- Amphibious plane (4,500 - 5,000 litres)
- Land loaded plane (2,100 - 3,100 litres)
- Regional coordination plane

* In brackets: number of devices available.

MAGRAMA: Ministry of Agriculture, Food and Environment
ENRESA: National Radioactive Waste Company

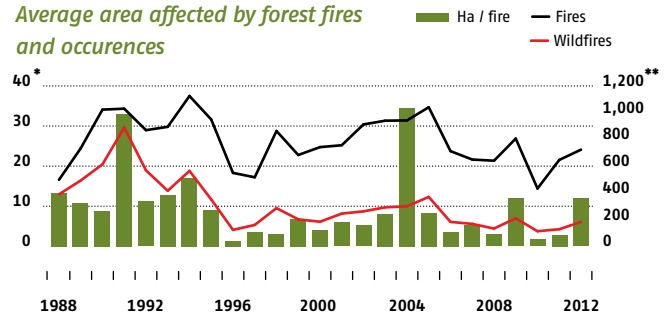
FOREST FIRES

Burnt down area in Andalusia



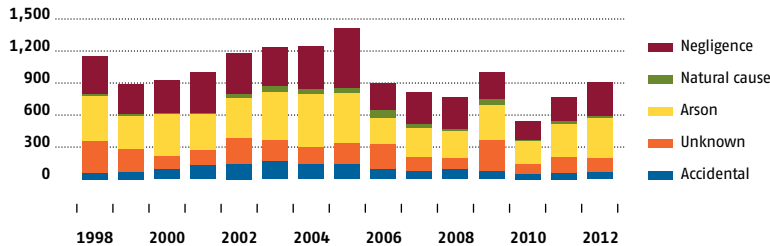
* Area (ha)

Average area affected by forest fires and occurrences



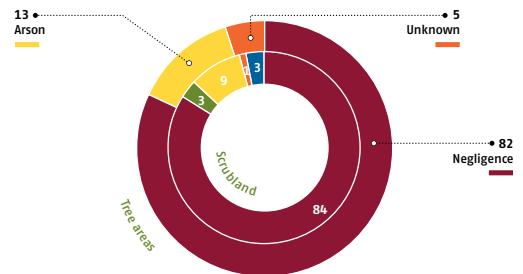
* Ha / fire ** Nº forest fires

Evolution of forest fires per causes



Remark: data include fires and wildfires.

Burnt down areas per causes 2012

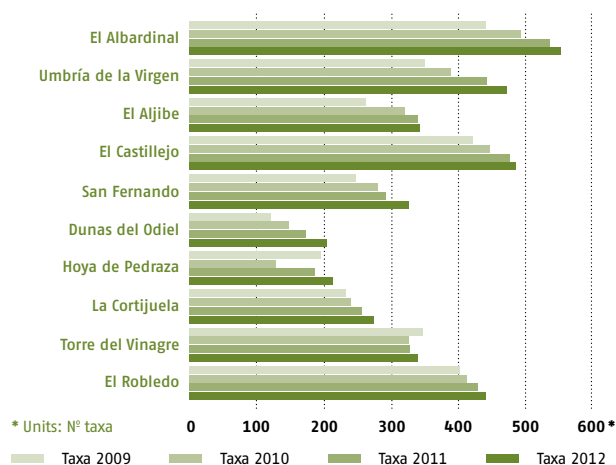


ENDANGERED SPECIES OR SPECIES UNDER SPECIAL PROTECTION IN ANDALUSIA

DESIGNATION	New Catalogue (nº species)			Law 8/2003, on Wild Flora and Fauna	
	Fungus	Flora	Fauna	Flora	Fauna
Extinct (EX)	-	5	1	5	-
Endangered (EN)	4	65	29	74	23
Vulnerable (VU)	3	112	53	102	29
Total threatened (EX, EN, VU)	7	186	83	181	52
List of special protection (in Law 8/2003: special interest or sensitive to alterations)	9	96	340	12	256
Total	16	278	423	193	308
Total number of species	717			501	

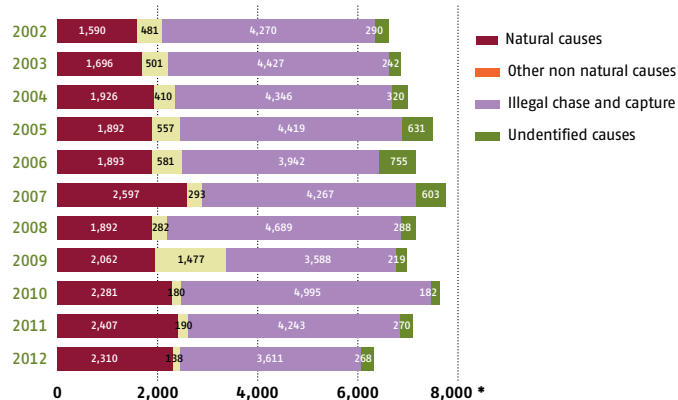
Note: The rise in the number of species is a result of the greater knowledge there is regarding them (particularly concerning fungus and invertebrates) and of the approved National Catalogue. Endangered Wildlife Species in Andalusia.

FLORA TAXA PRESENT IN NATURAL AREA BOTANICAL GARDENS



* Units: Nº taxa
 0 100 200 300 400 500 600*
 Taxa 2009 Taxa 2010 Taxa 2011 Taxa 2012

CAUSE OF ADMISSIONS IN ENDANGERED SPECIES RECOVERY CENTRES (CREA)

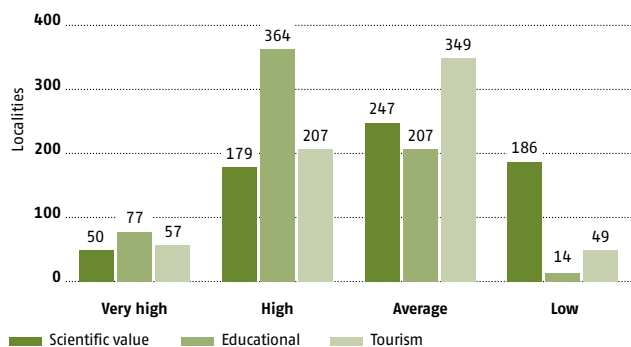


* Units: number of specimens

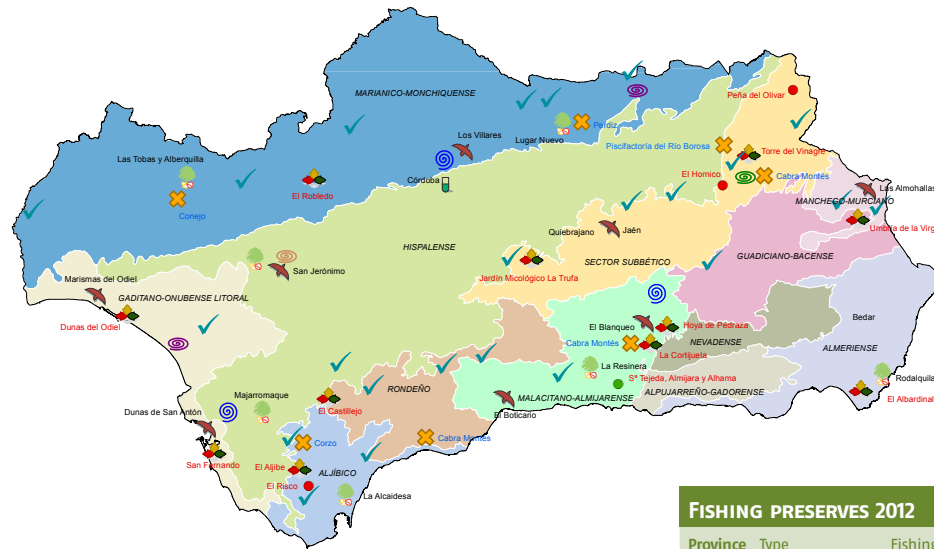
EVOLUTION OF IBERIAN LYNX BREEDING POPULATIONS, 2002-2012

Year	Territorial females	Minimum number of cubs	Population estimation (specimens)
2002	27	28	94
2003	30	21	100
2004	34	40	121
2005	42	33	133
2006	40	67	177
2007	41	34	167
2008	54	77	213
2009	61	70	241
2010	63	86	275
2011	76	86	312
2012	84	78	305

ASSESSMENT OF LOCALITIES INCLUDED IN THE ANDALUSIAN GEO-RESOURCES INVENTORY



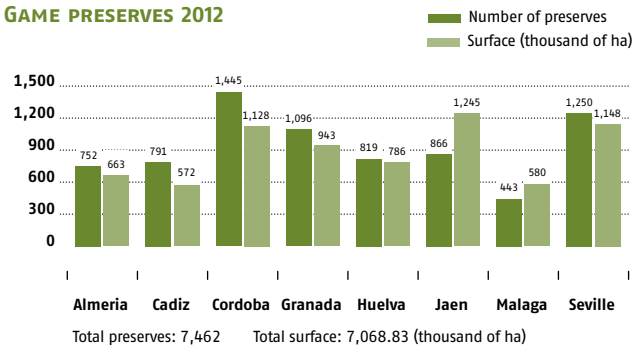
FAUNA AND FLORA PRESERVATION AND MANAGEMENT NETWORKS AND FACILITIES 2012



- Nurseries (7)*
- Botanical and Mycological gardens (11)*
- Botanical gardens under construction (1)*
- Collections not included in the network (3)*
- Andalusian Plant Germplasm Bank (1)*
- Iberian lynx breeding centre (2)*
- Imperial eagle breeding centre (1)*
- Bearded vulture breeding centre (1)*
- Breeding centre for other endangered species (3)*
- Andalusian network of endangered species recovery centres (8)*
- Andalusian Scavenger Bird feeder network (23)*
- Hunting reference stations (7)*



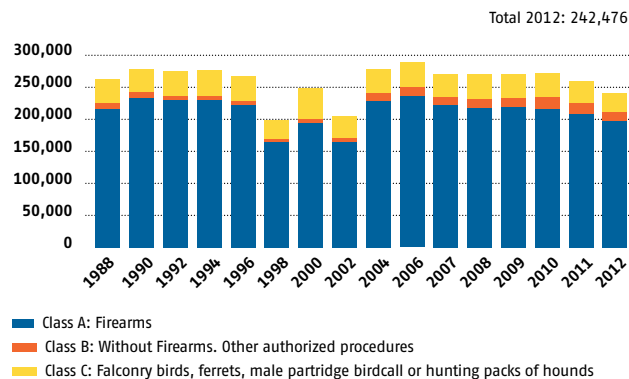
GAME PRESERVES 2012



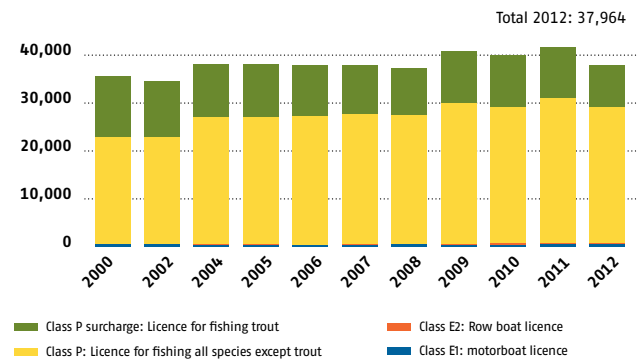
FISHING PRESERVES 2012

Province	Type	Fishing regime	Nº of preserves	Nº of preserves without death	Length (Km)	Surface (ha)
Almeria	Trout preserve	High mountain	1	1	3.48	-
Cordoba	Cyprinidae & other species preserves	Intensive	1	0	-	12.80
Granada	Trout preserve	High mountain	5	5	30.09	74.42
		Low mountain	6	1	24.76	210.30
		Intensive	1	0	3.20	-
Huelva	Cyprinidae & other species preserves	Intensive	3	2	-	48.94
Jaen	Trout preserve	High mountain	6	6	34.09	-
		Low mountain	16	6	84.33	289.11
		Intensive	3	0	10.69	-
Malaga	Trout preserve	Low mountain	2	2	16.34	-
Seville	Trout preserve	Intensive	1	0	5.70	-

EVOLUTION OF HUNTING LICENCES PER TYPE



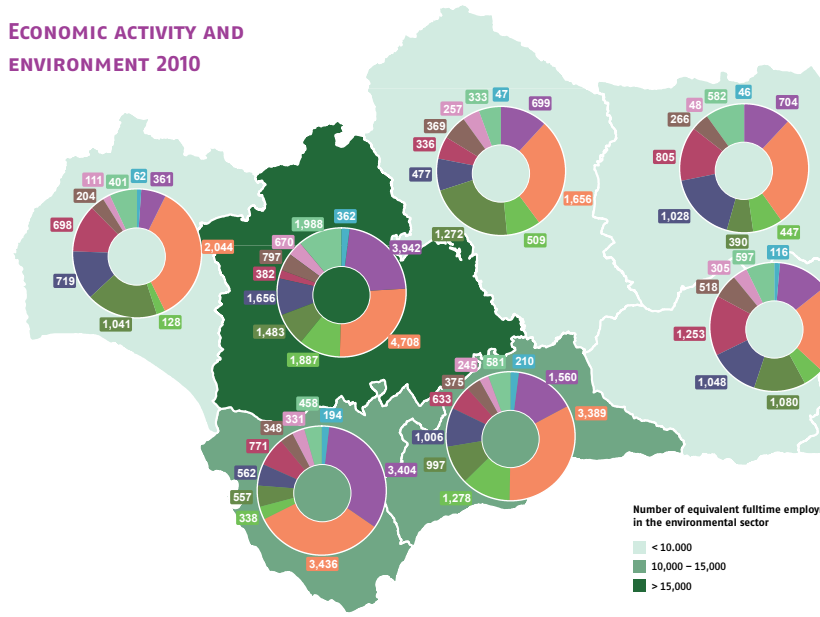
EVOLUTION OF SPORTFISHING LICENCES PER TYPE



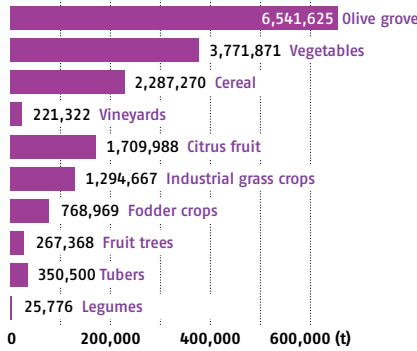
ECONOMIC DATA [2]			
International market			
	2011	2012*	
Imports (thousands of €)	29,211,534	31,245,613	
Exports (thousands of €)	22,851,124	25,054,836	
Balance	-6,360,410	-6,190,777	
GDP and INCOME *			
	GDP per capita 2010	Gross Available income per capita 2010	
Andalusia (€)	17,299	12,047	
Spain (€)	22,776	14,959	
Employed population in Andalusia 2012			
	Males	Females	Total
Employed (thousands of people)	1,443.1	1,136.8	2,579.9
Unemployed (thousands of people)	759.8	682.8	1,442.6
Employment rate (%)	66.1	52.5	59.2
Unemployment rate (%)	34.5	37.5	35.9

* Provisional data

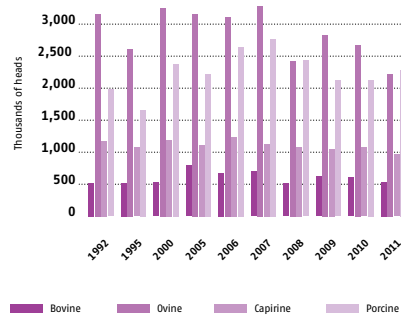
ECONOMIC ACTIVITY AND ENVIRONMENT 2010



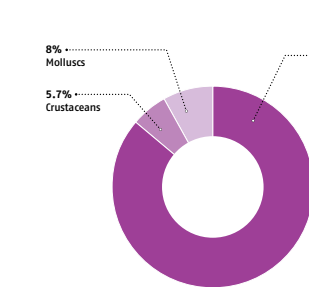
PRODUCTION OF AGRICULTURAL CROPS 2011 [4]



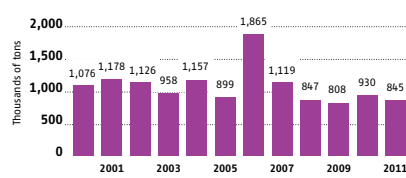
LIVESTOCK [4][8]



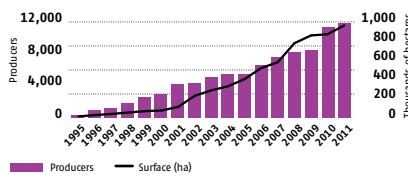
FRESH FISH AUCTIONS 2011 [4]



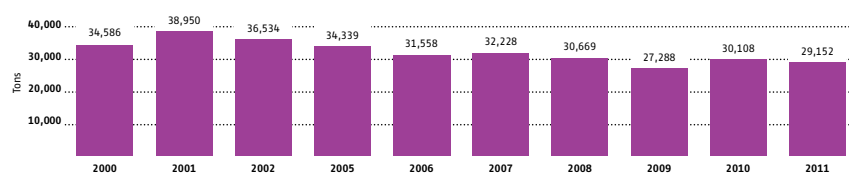
FERTILIZERS CONSUMPTION [4]



ECOLOGICAL AGRICULTURE [8]

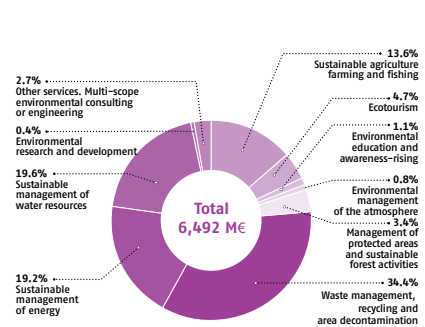


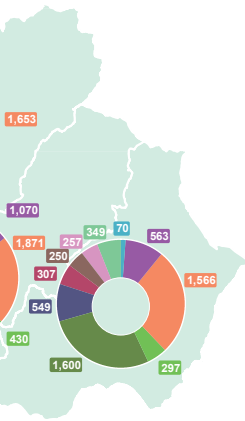
CONSUMPTION OF PHYTOSANITARY PRODUCTS [11]



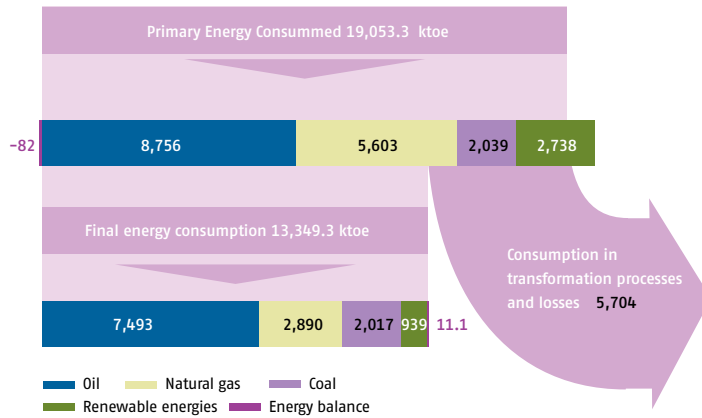
ENVIRONMENTAL ACTIVITIES BUSINESS

VOLUME BY SECTOR, 2010

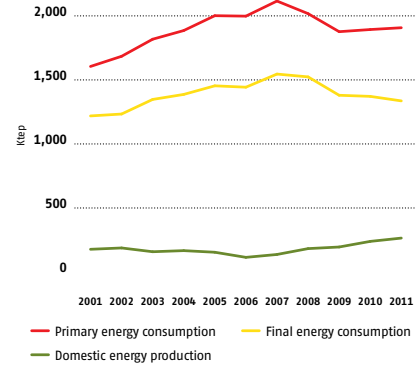




ENERGY BALANCE 2011 [12]



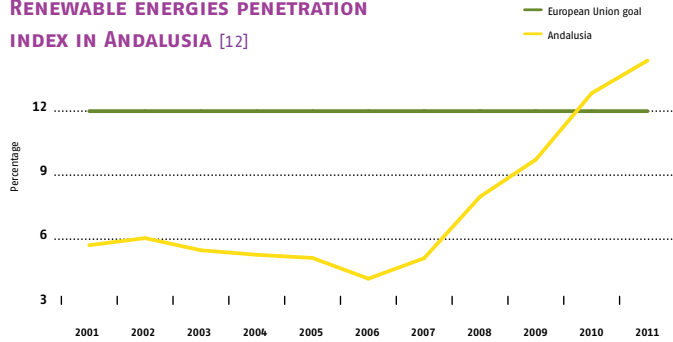
EVOLUTION OF DOMESTIC ENERGY PRODUCTION AND CONSUMPTION [12]



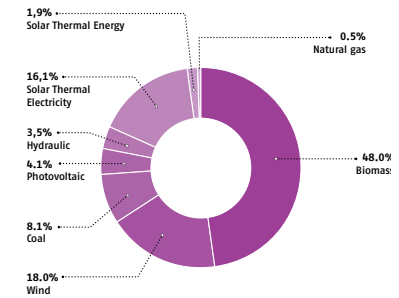
Full-time equivalent employment by environmental sector

- Environmental management of the atmosphere
- Sustainable management of water resources
- Management of waste, recycling and decontamination of spaces
- Sustainable management of energy
- Sustainable agriculture, farming and fishing
- Management of protected spaces and sustainable forest activities
- Ecotourism
- Environmental education and awareness-rising
- Environment-related research and development
- Other services. Multi-scope environmental consulting or engineering

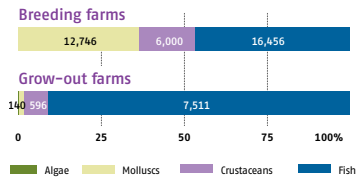
RENEWABLE ENERGIES PENETRATION INDEX IN ANDALUSIA [12]



DOMESTIC ENERGY PRODUCTION 2011 [12]

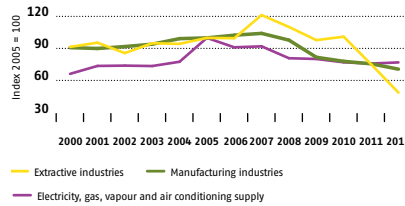


MARINE AQUACULTURE 2011 [4]

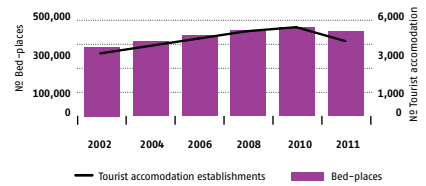


Units: Breeding farm data (thousands of units) and Grow-out farm data (tons).

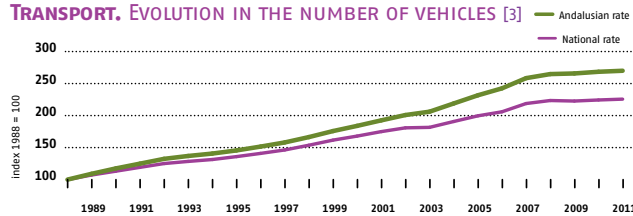
INDUSTRIAL PRODUCTION [3]



BED-PLACES AND TOURIST ACCOMODATION ESTABLISHMENTS [13]



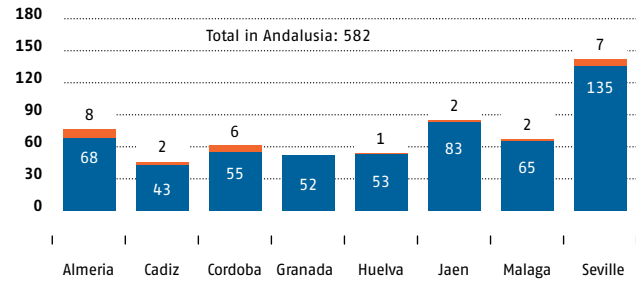
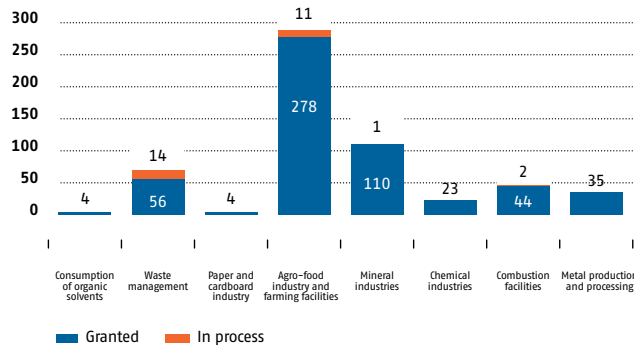
TRANSPORT. EVOLUTION IN THE NUMBER OF VEHICLES [3]



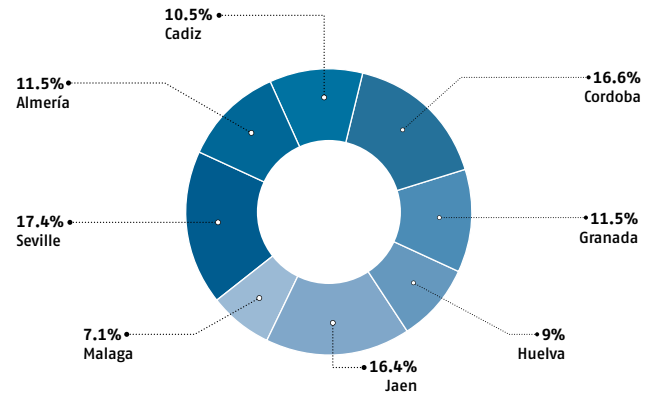
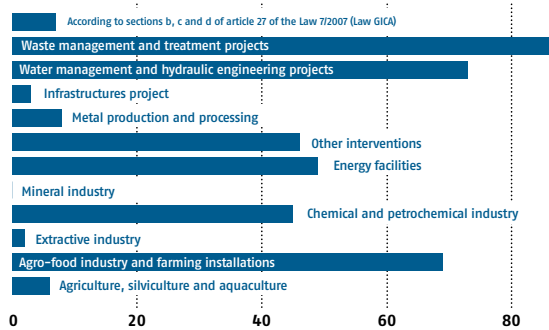
Motorization rate 2011

Scope	Vehicles	Population (inhab.)	Vehicles/ 100 inhab.
Andalusia	5,365,010	8,424,102	63.69
Spain	31,269,081	47,190,493	66.26

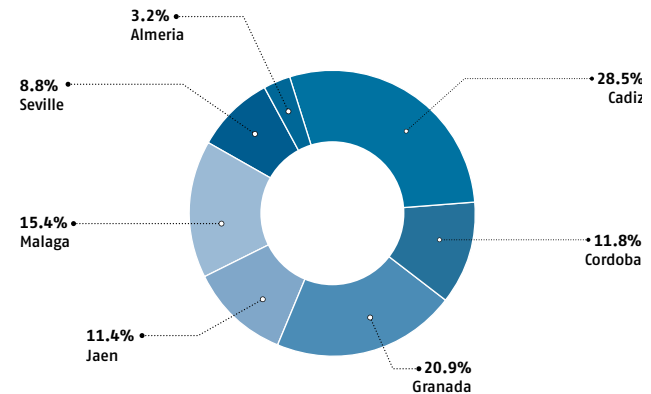
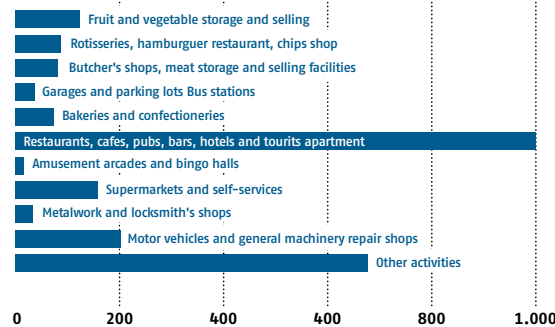
INTEGRATED ENVIRONMENTAL AUTHORIZATION REQUESTS PROCESSED IN ANDALUSIA PER SECTOR AND PROVINCES, 2012



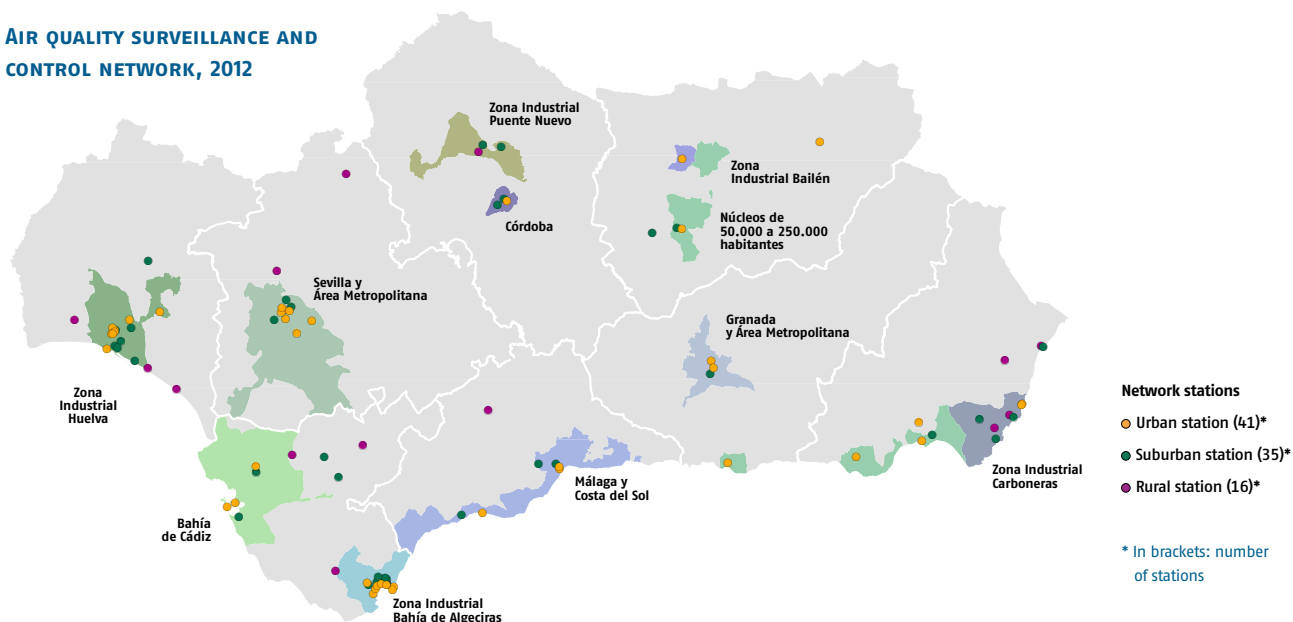
UNIFIED ENVIRONMENTAL AUTHORIZATION REQUESTS INITIATED IN ANDALUSIA PER SECTOR AND PROVINCES, 2012



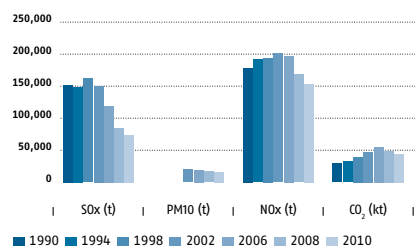
ENVIRONMENTAL QUALIFICATION REQUESTS INITIATED IN ANDALUSIA PER SECTOR AND PROVINCES, 2012



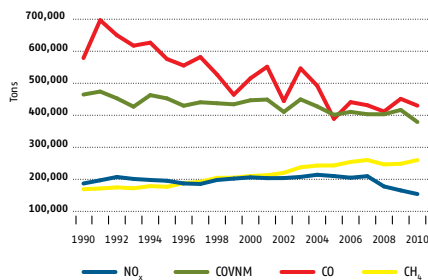
AIR QUALITY SURVEILLANCE AND CONTROL NETWORK, 2012



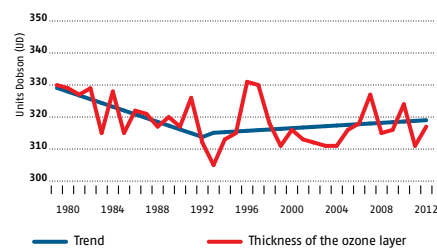
ATMOSPHERIC EMISSIONS IN ANDALUSIA MAIN POLLUTANTS 1990-2010



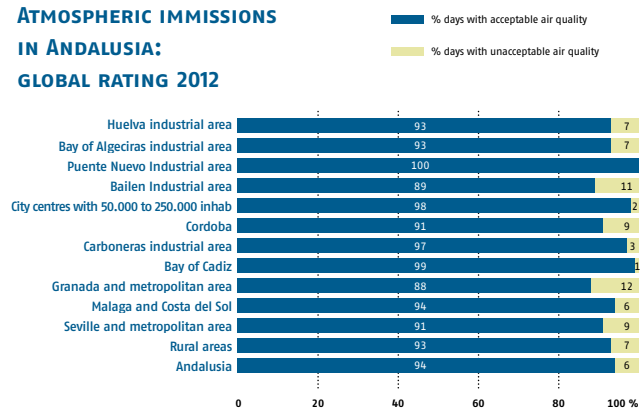
EMISSIONS OF TROPOSPHERIC OZONE PRECURSOR GASES IN ANDALUSIA 1990-2010



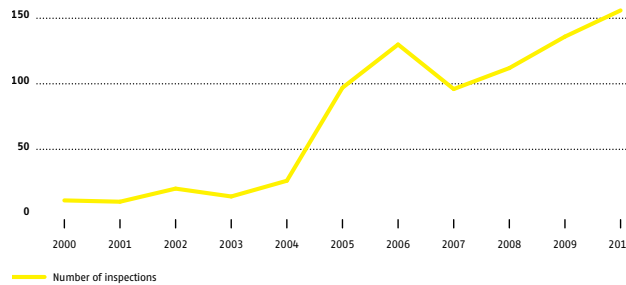
AVERAGE THICKNESS OF THE OZONE LAYER OVER ANDALUSIA 1979-2012



ATMOSPHERIC IMMISSIONS IN ANDALUSIA: GLOBAL RATING 2012



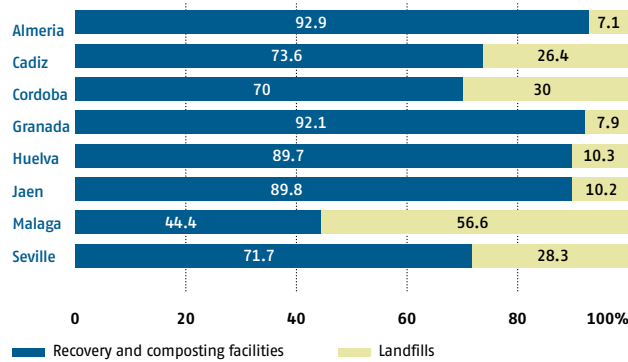
EVOLUTION OF NOISE INSPECTIONS AND TESTS CARRIED OUT IN ANDALUSIA 2000-2010



Basic data



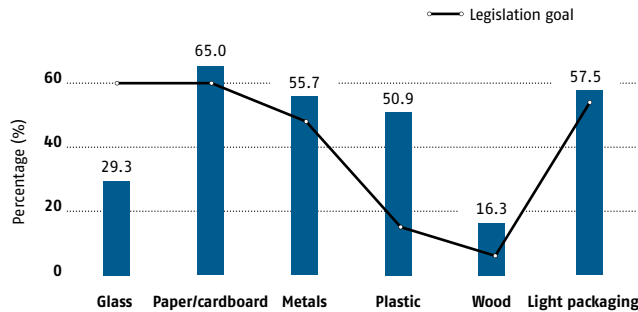
URBAN WASTE COLLECTION AND TREATMENT 2011 [2][8]



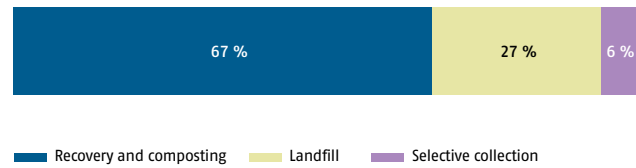
Urban waste collection in Andalusia (t/year) 2011¹ 4,644,258
 Urban waste production in Spain (t/year) 2010¹ 25,569,956
 Kg/inhabitant/day of urban waste in Andalusia 2011 1.5
 Kg/inhabitant/day of urban waste in Spain 2011 1.5

¹ Including selective collection

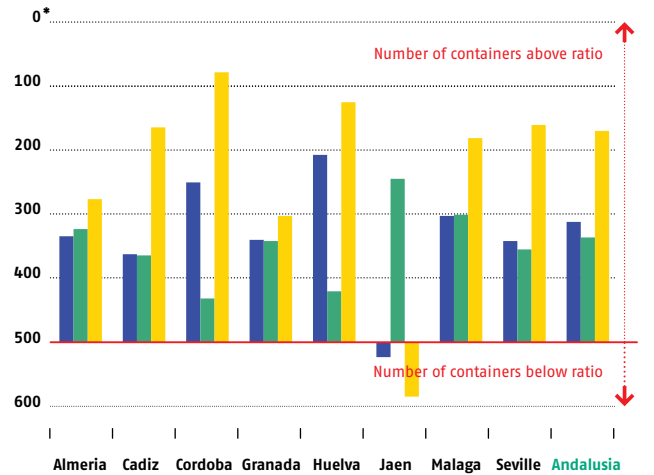
CONTAINER RECYCLING RATE 2011 [14]



URBAN WASTE TREATMENT IN ANDALUSIA 2011

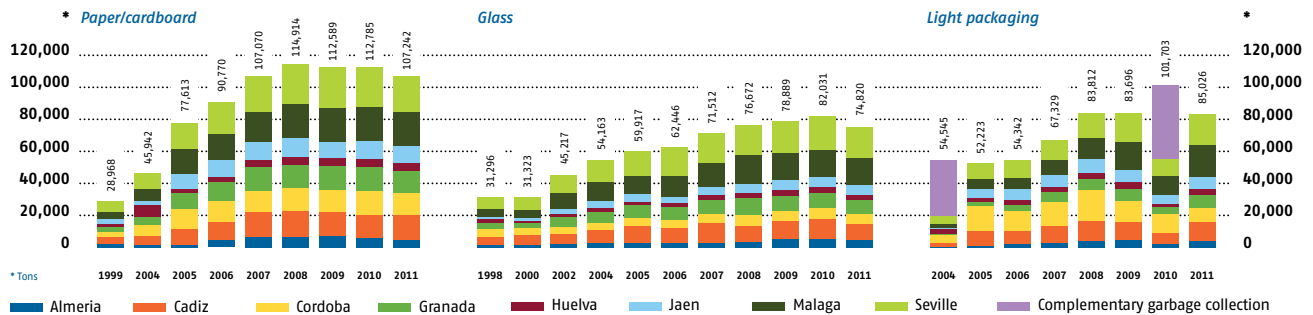


CONTAINERS RATIO (INHAB./ CONTAINER) FOR SELECTIVE COLLECTION OF URBAN WASTE PER PROVINCES 2011

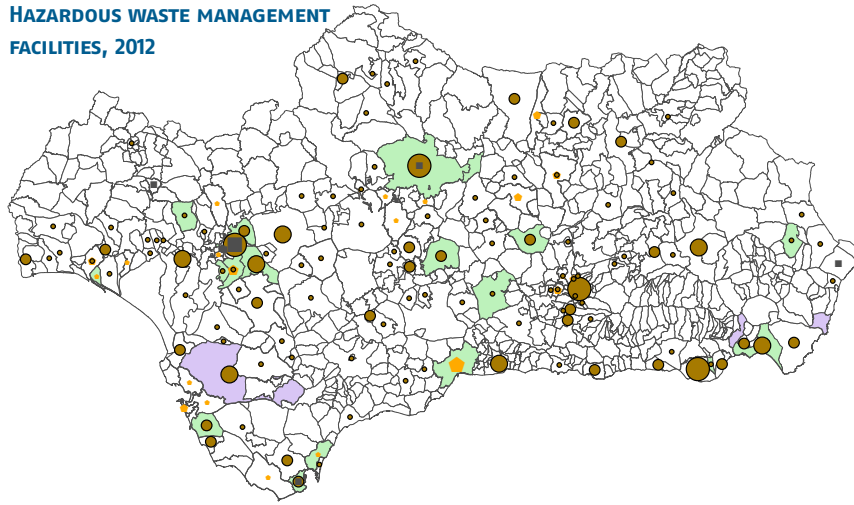


* Number of inhabitants per container

SELECTIVE WASTE COLLECTION AND RECYCLING [14][15]



HAZARDOUS WASTE MANAGEMENT FACILITIES, 2012



Decontamination of vehicles at the end of their useful life (119)*



Transfer centre (44)*

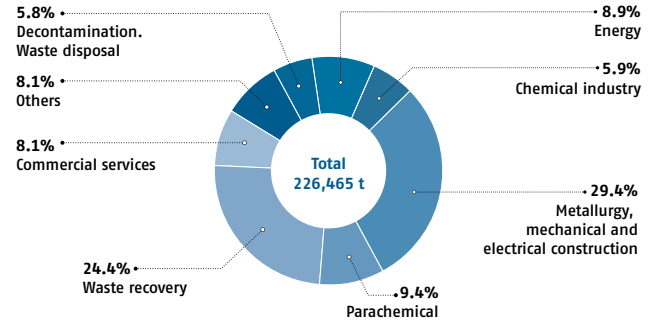
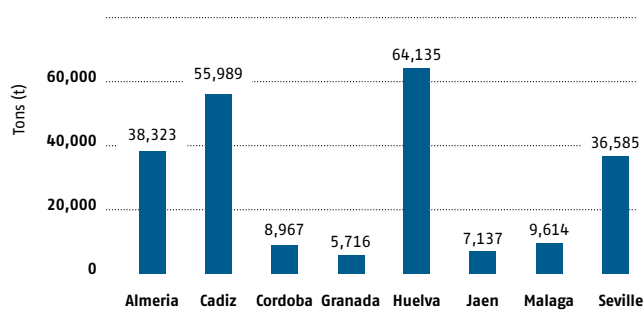
Soil decontamination (7)*



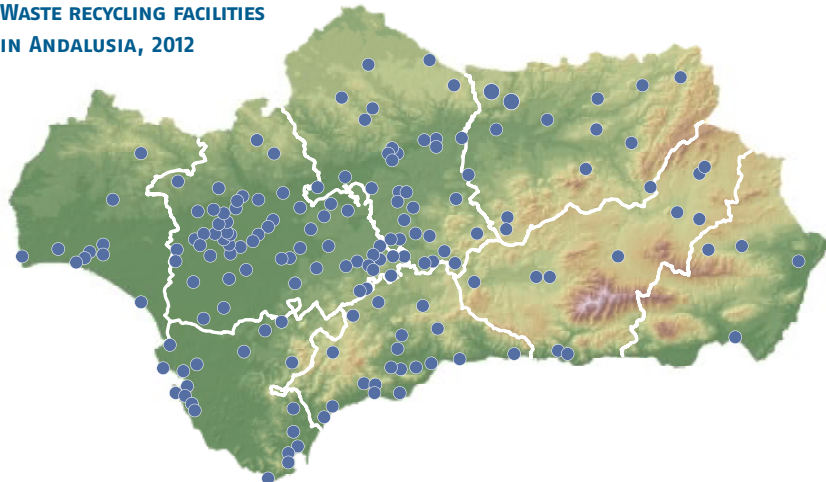
* In brackets: number of facilities



DECLARED HAZARDOUS WASTE PRODUCTION IN ANDALUSIA PER PROVINCE AND PER ACTIVITY SECTORS, 2011



WASTE RECYCLING FACILITIES IN ANDALUSIA, 2012



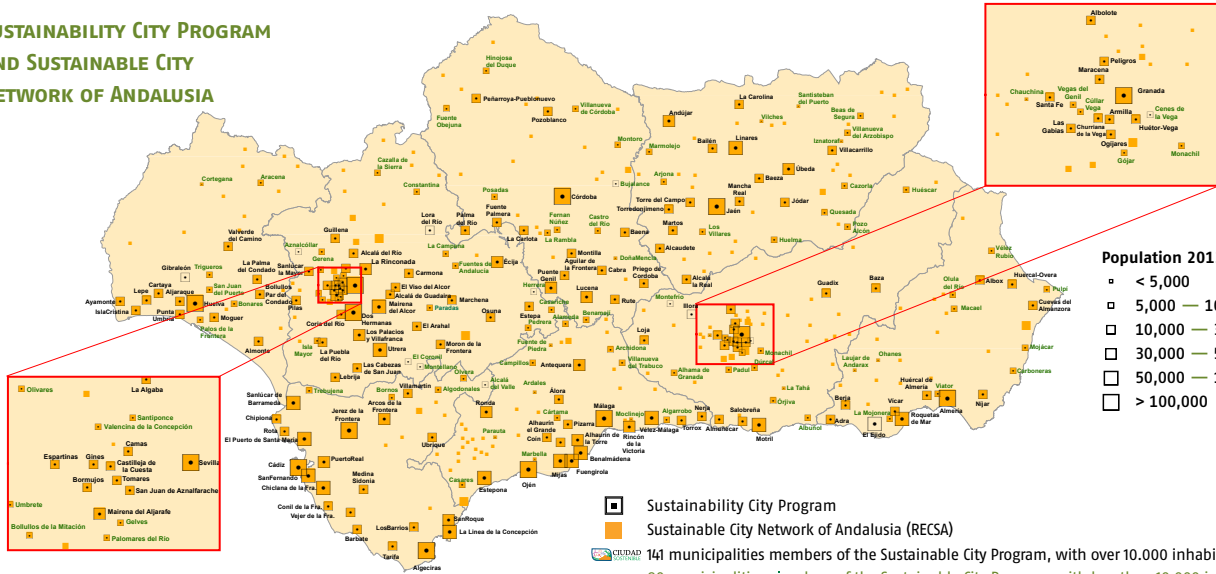
● Waste recycling facilities

Total in Andalusia: 169

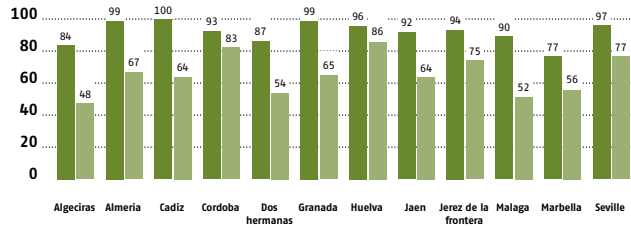


SUSTAINABILITY CITY PROGRAM AND SUSTAINABLE CITY NETWORK OF ANDALUSIA

Urban environment

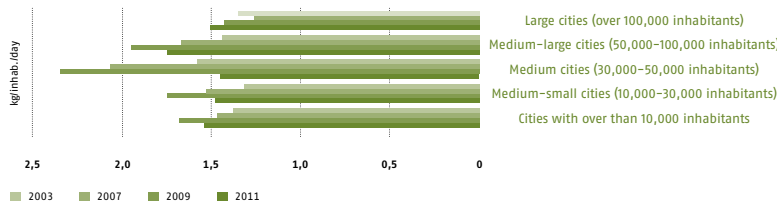


PROXIMITY TO GREEN AREAS IN ANDALUSIAN CITIES, 2012

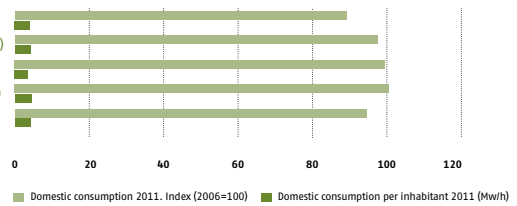


URBAN ENVIRONMENTAL INDICATORS [3]

Urban waste generation in andalusian cities 2003-2011



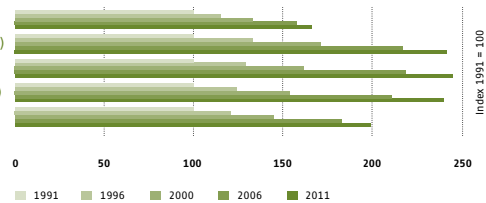
Electrical energy consumption in andalusian cities



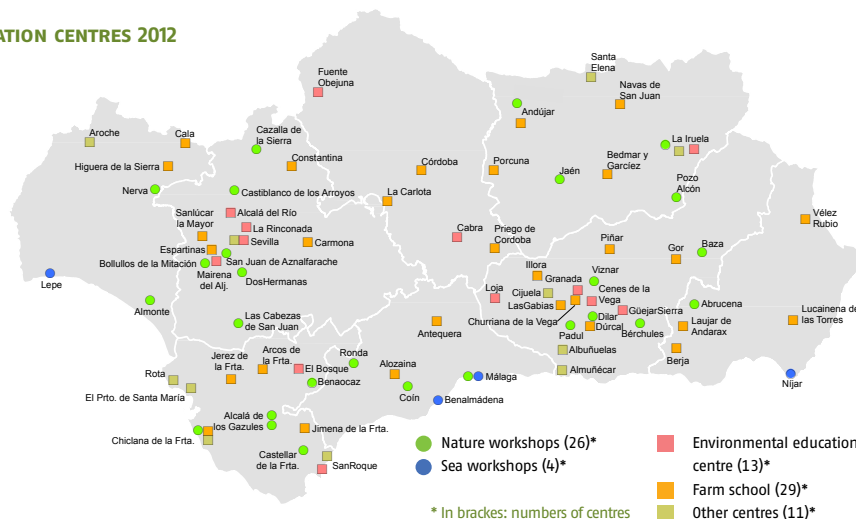
Housing restoration and social housing in andalusian cities 2011



Evolution in the number of cars in andalusian cities 1991-2011



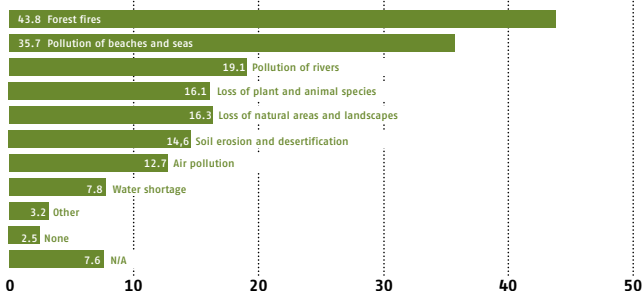
ENVIRONMENTAL EDUCATION CENTRES 2012



Social perception, environmental education and volunteering

ECOBAROMETER [16]

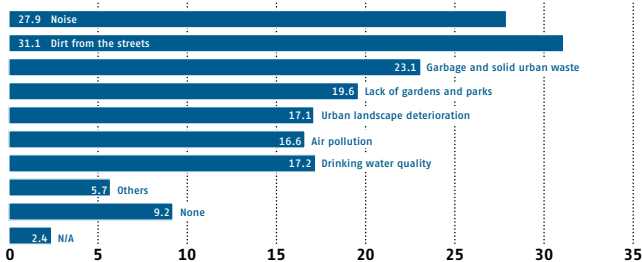
Perception of the most important global environmental problems in Andalusia 2011



* Unit: %

Multiple choice questions: those polled indicated up to a maximum of three problems. Percentages were calculated from the total of polled people. Unanswered cases (N/A) were excluded.

Perception of the most important local environmental problems in Andalusia 2011



* Unit: %

Multiple choice questions: those polled indicated up to a maximum of three problems. Percentages were calculated from the total of polled people. Unanswered cases (N/A) were excluded.

Basic data

PARTICIPATION IN "ALDEA ACTIVA" ENVIRONMENTAL EDUCATION PROGRAM CAMPAIGNS 2011-2012 [4][17]

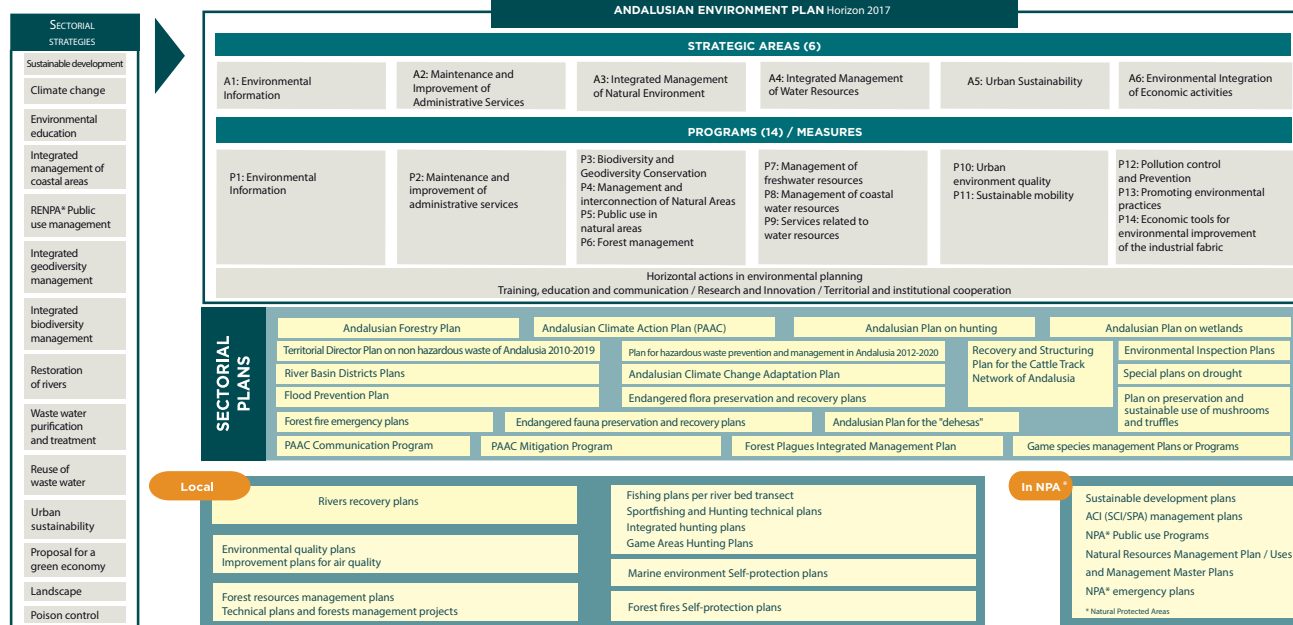
Campaign	Activity	Centres	Students	Teachers
Grow up with your tree	Reforestation	680	108,742	9,797
Let's take care of the coast	Data gathering and analysis	245	24,746	2,049
Eco-schools	Environmental audit	200	56,696	5,196
Kyoto educates	Awareness on Climate Change	304	70,733	6,521
Educational trips	Environmental education	125	3,096	258
Urban sustainability	Environmental awareness-raising on local sustainability	35	482	51
Ecologic food	Promotion of ecologic food	35	4,983	35
Botanical gardens	Knowledge of Andalusian flora	142	6,271	457
Water, naturally	Awareness-raising on water values	22	881	74
Nature and you	Environmental awareness-raising in natural areas	299	19,849	1,460
Forest training centre	Environmental education	8	33	174
Natural park of Doñana	Knowledge of natural environment	66	4,812	232
Natural area of Sierra Nevada	Knowledge of natural environment	40	1,153	163
Edu-birds	Knowledge of birds and their habitats	102	7,233	189
Recapacida	Awareness-raising on recycling	187	25,913	2,901
Total		2,490	335,623	29,557

PARTICIPATION IN ENVIRONMENTAL VOLUNTEERING PROGRAMS 2012

Programs	Participants	Volunteer Working Hours (VWH)
Andalusian Ecampus project	147	1,176
Environmental volunteer work camps in Andalusia	46	3,680
Environmental volunteer networks in natural sites	688	16,147
Coastal environment volunteer networks of Andalusia	464	8,175
Mediterranean forest volunteering	270	2,123
Andarrios program	1,218	12,936
Biodiversity Programs	189	36,010
Total	3,022	80,247



CURRENT SITUATION OF ENVIRONMENTAL PLANNING IN ANDALUSIA



* Protected Natural Areas Network in Andalusia

MAIN ENVIRONMENTAL REGULATIONS IN ANDALUSIA

Structure and organization

- Law 12/2011 of February 17th, on restructuring the Andalusian public sector.
- Decree 148/1994 of August 2nd on restructuring the Regional Ministries (creation of the Regional Ministry of Environment).
- Decree 104/2011 of April 19th, approving the internal regulations of the Environment and Water Agency of Andalusia.
- Decree 151/2012 of June 5th, which establishes the organic structure of the Regional Ministry of Agriculture, Fisheries and Environment.

Water and Coastal Area

- Decree 66/2011 of March 29th, on the transfer of means and services by the Spanish National Government to the Andalusian Regional Government regarding Coastal Area planning and management.
- Law 9/2010 of July 30th, on Waters of Andalusia.
- Decree 14/2005 of January 18th 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 20th, which determines the Territorial limits of the intercommunity river basins in Andalusia.
- Decree 14/2012 of January 31st, establishing the Committee of Competent Authorities of river basin districts of the intercommunity basins in Andalusia detailing its organization, functions and powers.
- Decree 52/2012 of February 29th, regulating the Andalusian Water Observatory.
- Order of April 23rd, 2012, approving the Preliminary Assessment of Flood Risk in Andalusia. River Basin Districts: Timo, Odiel and Piedras; Guadalete and Barbate; and Andalusian Mediterranean Basin.

Natural heritage

- Law 2/1989 of July 18th, approving the Inventory of Protected Natural Areas 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 Areas of Andalusia and establishing additional protecting measures.
- Law 8/1999 of October 27th on the Natural Area of Doñana.
- Law 8/2005 of October 28th, on Wild Flora and Fauna.
- Decree 225/1999 of November 9th on the regulation and development of the natural monument of andalusia protection figure.
- Decree 95/2003 of April 8th, on the regulation of the Network of Protected Natural Areas and their Registry.
- Decree 98/2004 of March 9th, creating the Inventory of Wetlands of Andalusia and the Andalusian Committee on Wetlands.
- 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 streamlining of administrative procedures.
- Decrees on Natural Resources Management Plans of Natural Spaces declared by the Law 2/1989.

- Decree 23/2012, of February 14th, which regulates the conservation and sustainable use of flora and fauna and their habitats.
- Decree 493/2012, of September 25th, by declaring certain sites of Community importance as Special Areas of Conservation of the European ecological network Natura 2000 in the Autonomous Community of Andalusia.
- Orders extending the validity of the Master Plans for Use and Management of the Natural Parks of Despeñaperos, Sierra Magina, Bahía de Cádiz, Sierra Norte de Sevilla, Los Alcornocales, Sierra de Huelter, Sierra de Baza, Sierra de las Nieves, Sierra de Ardujar and Sierras Subbéticas.
- Agreement of October 5th 2010 of the Government Council approving the Andalusian Geodiversity Integrated Management Strategy.
- Agreement of September 27th 2011 of the Government Council approving the Andalusian Biodiversity Integrated Management Strategy.
- Agreements approving Sustainable Development Plans (SDP) for the Andalusian Natural Parks.
- Agreement of March 6th 2012 of the Government Council approving the Andalusian Landscape Strategy.
- Agreement of March 19th 2012 of the Government Council approving the recovery and conservation plans of certain wildlife and protected habitats.

Forest Management

- Law 2/1999 of July 15th on Andalusian Forestry.
- Law 5/1999 of July 29th on forest firefighting and prevention.
- Law 7/2010 of July 14th, on the "dehesas".
- Law 208/1997 of September 9th on the Andalusian forest regulation.
- Decree 155/1998 of July 21st, approving the Regulation for cattle tracks in Andalusia.
- Decree 247/2001 of November 13th, approving forest firefighting and prevention regulation.
- Decree 182/2005 of July 26th approving the Hunting Management Rules.
- Decree 232/2007 of July 31st, approving the Andalusian Hunting Plan.
- Decree 33/2008 of January 22nd, approving the organization and functioning regime of the Andalusian Institute for hunting and Sport fishing.
- Decree 14/2008 on January 22nd, approving the certification and the gaming quality distinction of Andalusia.
- Decree 37/2010 of September 14th approving the Andalusian Forest Fire Emergency Plan and modifies the Forest Fire Prevention and Firefighting Regulations approved by the Decree 247/2001 of November 13th, 2001-2002.
- Order of July 27th, 2012, for approving the Hunting Area Plan of Los Alcornocales 2012-2022.
- Agreement of March 27th 2001, of the Government Council approving the Plan for the Recovery and Structuring of the Cattle Track in Andalusia.
- Agreement of September 7th 2010, of the Government Council approving the adequation of the Andalusian Forest Plan Horizon 2015.
- Agreement of February 21st 2012, of the Government Council formulating the Andalusian Plan for the "dehesas".

Environmental quality and prevention

- Law 7/2007 of July 9th, on the integrated management of environmental quality.
- Decree 292/1995 of December 12th, approving the Regulation of Environmental Impact Evaluation in Andalusia (repealed, without prejudice to what is established by the fourth transitory disposition of the Law 7/2007, of July 9th).
- Decree 297/1995 of December 19th, approving the Regulation on Environmental Qualification.
- Decree 14/1996 of January 16th, approving the Regulation on Coastal Waters Quality.
- Decree 189/2002 of July 2nd, approving the Flood Prevention Plan in Andalusian urban basins.
- Decree 356/2010 of August 3rd, regulating the Unified Environmental Authorization, establishing the organization and working regime for the registry of authorizations for activities 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 Quality.
- 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 Non hazardous waste in Andalusia 2010-2019.
- Decree 160/2011 of May 31st, approving the Energy Efficiency and Saving and the Renewable Energy Promotion Regulations in Andalusia.
- Decree 239/2011 of July 12th, regulating the quality of atmospheric environment and the creation of the Registry of Air Quality Assessment Systems in Andalusia.
- Decree 5/2012 of January 17th, regulating the integrated environmental authorizations and modifying Decree 356/2010 of August 3rd regulating the Unified Environmental Authorization.
- Decree 6/2012 of January 17th, which approving the Regulation on protection against noise pollution in Andalusia, and modifying Decree 357/2010 of August 3rd, approving the Night Sky Quality Protection Regulations against light pollution.
- Decree 7/2012 of January 17th, approving the Plan for the prevention and management of hazardous waste in Andalusia 2012-2020.
- Decree 73/2012 of March 20th, approving the Regulation of waste of Andalusia.
- Decree 334/2012 of July 17th, regulating the collaborating entities in environmental quality in Andalusia.
- Decree 10/2012 of March 20th, approving the Regulation of waste in environmental quality in Andalusia.
- Order of April 19th 2012, approving the technical instructions for monitoring and control of atmospheric emissions.
- Agreement of January 31st 2012, of the Government Council, approving the Andalusian Climate Action Plan: Communication Program.
- Agreement of February 16th 2012, of the Government Council, approving the Andalusian Environment Plan Horizon 2017.
- Agreement of June 5th 2007 of the Government Council, approving the Andalusian Climate Action Plan: Mitigation program.
- Agreement of April 19th 2012, of the Government Council, approving the Andalusian Urban Sustainability Strategy.

Environmental information

- Decree 34/7/2011 of November 22nd approving the structure and functioning of the Andalusian Environmental Information Network and the access to environmental information.

STRUCTURE OF THE REGIONAL MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING

Cabinet of the Minister

Deputy Ministry

- General Secretariat for the Integrated Management of Environment and Water:
 - D. G.* Natural environment management
 - D. G. Protected Natural Areas
 - D. G. Environmental Quality and Prevention
 - D. G. Hydraulic Public Domain Planning and Management
 - D. G. Water Infrastructures and Exploitation
- General Secretariat of Spatial Planning and Climate Change:
 - D. G. Urban Planning
- General Technical Secretariat

*D.G.: Directorate General

Collegiate body of social participation:

Environment and biodiversity

- Andalusian biodiversity committee
- Biodiversity and environment provincial committees
- Andalusian environment council

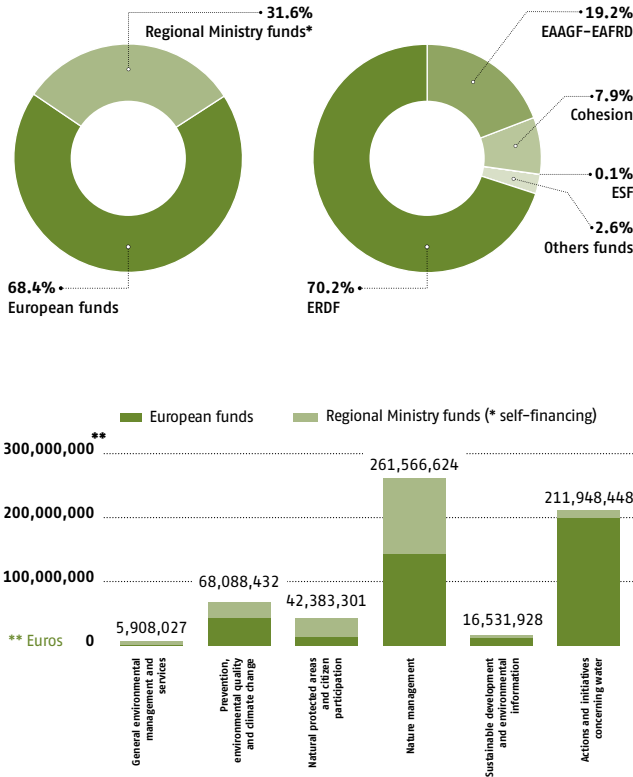
Water

- Water comissions of the Hydrographic Districts
- Andalusian water council
- Water Exploitation and Transfer Comissions
- Management comitees
- Interadministrative commission of the Guadalquivir estuary

Natural Protected Areas

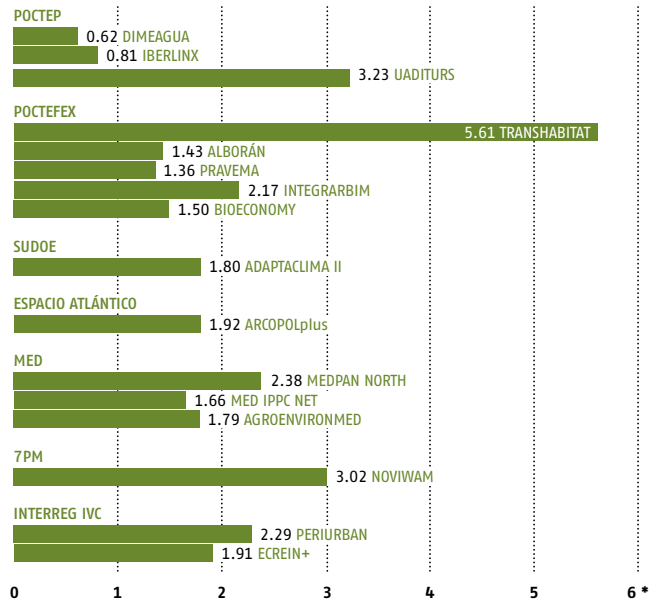
- Andalusian wetlands committee
- Andalusian committee of Biosphere Reserves
- Participation councils of the Sierra Nevada and Doñana Natural Areas
- Governing boards
- Governing boards of foundations

INVESTMENTS OF THE GENERAL SECRETARIAT OF ENVIRONMENT AND WATER, 2012



Basic data

EUROPEAN TERRITORIAL COOPERATION PROJECTS IN PROGRESS BY THE SECRETARIAT OF THE ENVIRONMENT AND WATER, 2012



* Total budget of the project. In millions of euros.



Regional Ministry of Environment and Spatial Planning

Av. Manuel Siurot, 50. 41071 Seville
Av. Guardia Civil, 1. 41071 Seville

REGIONAL MINISTER OFFICE

DEPUTY MINISTRY

General Secretariat of Integrated Management of Environment and Water

General Secretariat of Spatial Planning and Climate Change

General Technical Secretariat

Public Agency

ENVIRONMENT AND WATER AGENCY
Av. Johan G. Gutenberg, 1
41092 Seville

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C/ Canónigo Molina Alonso, 8
04004 Almería

C/ Aguilar de Campoo s/n
Edif. "Paseo 15"
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04071 Almería

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Plaza de Asdrúbal, 6
Edif. de la Junta de Andalucía
11071 Cádiz

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C/ Tomás de Aquino s/n
Edif. Servicios Múltiples, 4ª – 8ª Planta
14071 Córdoba

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Av. de Madrid, 7
18071 Granada

C/ Joaquina Eguaras, 2
Edif. "Almanjazar"
18071 Granada

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C/ Sanlúcar de Barrameda, 3
21071 Huelva

C/ Emires, 2, A
21071 Huelva

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C/ Doctor Eduardo García-Triviño
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23071 Jaén

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Edif. Servicios Múltiples,
3ª – 7ª Planta
29071 Málaga

Paseo de Reding, 20
29071 Málaga

Seville

Av. de Grecia, s/n
Edif. Administrativo Los Bermejales
41071 Seville

- Environment Web Site of Regional Ministry of Environment and Spatial Planning: www.juntadeandalucia.es/medioambiente
- Citizen helpline: (+34) 902 484 802 and (+34) 954 54 44 38
- Citizen mailbox: www.juntadeandalucia.es/medioambiente/buzondelciudadano
- REDIAM Channel: www.juntadeandalucia.es/medioambiente/rediam

Information sources

- [1] Eurostat.
- [2] Spanish National Institute of Statistics (INE).
- [3] Andalusian Statistics and Cartography Institute (IECA).
- [4] Regional Ministry of Agriculture, Fishing and Environment.
- [5] Regional Ministry of Economy, Innovation, Science and Employment.
- [6] Encyclopaedia of Andalusia and Ministry of Agriculture, Fishing and Food (*).
- [7] Spanish national meteorological agency (AEMET).
- [8] Spanish Ministry of Agriculture, Food and Environment.
- [9] Regional Ministry of Health and Social Wellness.
- [10] Blue Flag – The Foundation for Environmental Education.
- [11] Business association for the protection of plants (AEPLA).
- [12] Andalusian Energy Agency. Regional Ministry of Economy, Innovation, Science and Employment.
- [13] Regional Ministry of Tourism and Commerce.
- [14] Ecoembes.
- [15] Ecovidrio.
- [16] Andalusian Institute of Social Studies (IESA-CSIC).
- [17] Regional Ministry of Education.

(* Current Spanish Ministry of Agriculture, Food and Environment. The information whose source is not mentioned corresponds to the Environmental Information Network of Andalusia (REDIAM) of the Regional Ministry of Environment and Spatial Planning of the Junta de Andalucía.



European Union

European Regional
Development Fund



JUNTA DE ANDALUCÍA

REGIONAL MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING