



SoER 2009 - Portugal  
10 INDICATORS

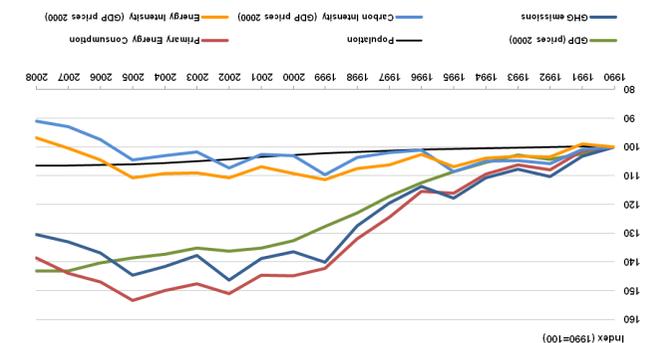
**AGÊNCIA PORTUGUESA DO AMBIENTE**  
Ministério do Ambiente e do Ordenamento do Território

**Legend:**

- Positive trend, indicating satisfactory progress towards objectives and targets
- Progress, but not enough to reach objectives and targets
- No progress or negative trend

## GENERAL CONTEXT

Relative evolution of the GDP and population and associated environmental impacts

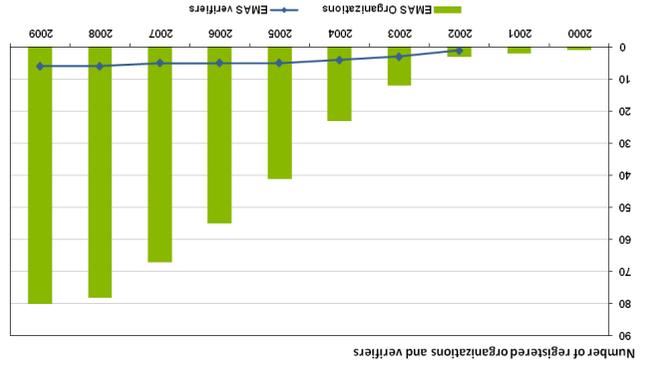


Source: APA, 2010; INE, 2010; DGEG, 2010

The relative evolution of the GDP and other environmental indicators shows a trend to decouple the creation of wealth from the negative environmental impacts, with special emphasis on reducing greenhouse gases emissions. In 2008, Portugal has registered the lowest value of energy intensity for the period 1998-2008. With regard to carbon intensity, Portugal has reached a value below the average of the EU-27.

## ENVIRONMENTAL MANAGEMENT

EMAS registered organizations and verifiers in Portugal

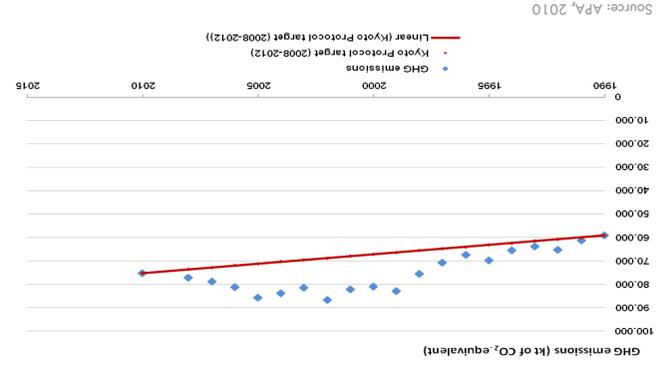


Source: APA, 2010; IPAC, 2010

In 2009 there were 80 organizations in Portugal registered under the EU Environmental Management and Audit Scheme (EMAS) and six environmental verifiers. Portugal has maintained the same position as in the previous year (6th) in the list of the 27-EU countries with more registered organizations in EMAS.

## CLIMATE CHANGE

Main GHG emissions (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) and commitments for the period 2008-2012

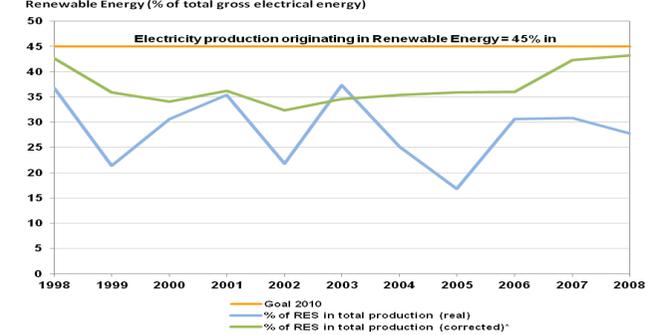


Source: APA, 2010

Greenhouse gases (GHG) emissions have increased significantly since 1990, an average of 3% per year until 2005, from which it an annual average decrease of also 3% was registered. In 2008 GHG emissions were found to be about 30% higher than 1990 (compared to the assigned amount), or approximately 3% above the target set by Portugal for 2008-2012.

## RENEWABLE ENERGY

Contribution of renewable energy sources to the percentage of gross production of electricity, in mainland Portugal, and comparison with the goal of Directive 2001/77/EC



Source: DGEG, 2010

\*the total electricity produced was corrected with the Hydroelectric Productivity Index (HPI) for comparison with target set by Directive 2001/77/EC

The incorporation of renewable energy sources (RES) in the gross consumption of electricity was 43.3% in 2008, which shows that Portugal is approaching the target (45% in 2010). Portugal was in the same year the 5th country in the EU-27 with greatest incorporation of renewable energy, above the European average (10.3%).

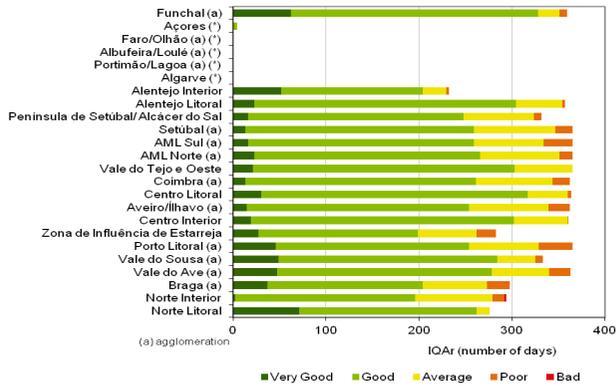
### Contributions to this report were given by the following institutions:

AFN - National Forest Authority (MADRP); ANCP - National Public Procurement Agency, EPE (MFAP); CCDR-Alentejo - Regional Coordination and Development Commission of the Alentejo (MAOT); CCDR-Algarve - Regional Coordination and Development Commission of the Algarve (MAOT) CCDR-Centro - Regional Coordination and Development Commission of the Center (MAOT); CCDR-LVT - Regional Coordination and Development Commission of Lisbon and Tejo Valley (MAOT); CCDR-N - Regional Coordination and Development Commission of the North (MAOT); DRA Azores - Azores Regional Environment Director; DRA Madeira - Madeira Regional Environment Director; DGEG - Directorate General for Energy and Geology (MEI); DGPA - Directorate General for Fisheries and Aquaculture (MADRP); DPP - Prospects and Department of Planning and International Relations (MAOT); ERSAR - Services Regulatory Authority for Water and Waste (MAOT); GPP - Office of Planning and Policy (MADRP); ICNB - Institute for Nature Conservation and Biodiversity (MAOT); IGP - Portuguese Geographic Institute (MAOT); IM - Institute of Meteorology, IP (MCTES); INAG - Water Institute, IP (MAOT); INE - National Institute of Statistics, IP (PCM); IPAC - Portuguese Institute of Accreditation.

# AIR



Air Quality Index in 2009



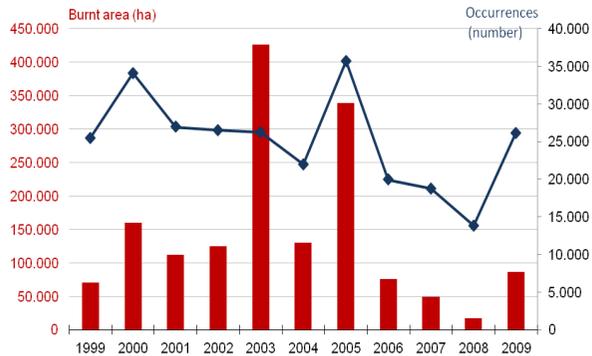
Source: CCDR Norte, CCDR Centro, CCDR Lisboa e Vale do Tejo, CCDR Alentejo, CCDR Algarve, DRA Açores, DRA Madeira, 2010

In 2009 the predominant class of the Air Quality Index (IAQr) was "Good", and the number of days with air quality "Good" increased, when compared with the previous year. The number of days on which the classification was "Very Good", "Medium", "Low" or "Bad" decreased.

# RISKS



Forest fires in mainland Portugal



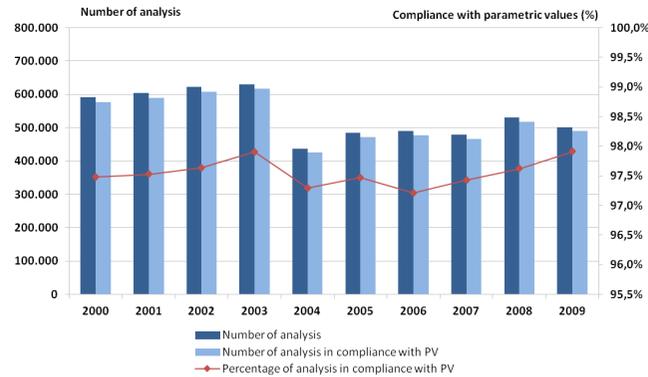
Source: AFN, 2010

In 2009 there were 26 136 occurrences in Portugal (of which 5 862 were forest fires), which resulted in 86 674 hectares burned, about five times the area burned in 2008. Thus the target established in the Portuguese Defense Plan Against Forest Fire was fulfilled once again, a burned area of less than 100 000 ha/year in 2012.

# WATER



Analysis in compliance with Parametric Values (PV)



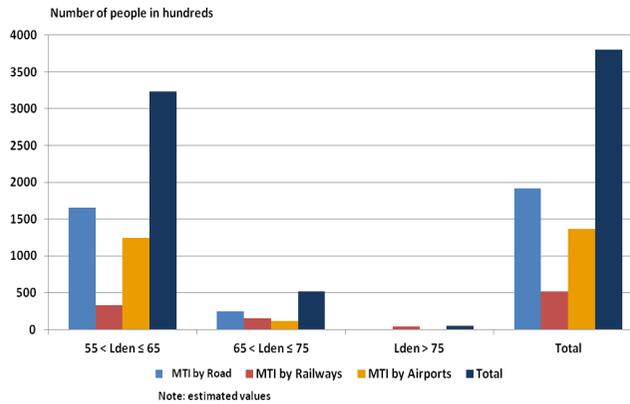
Source: ERSAR, 2010

In 2009 the percentage of analysis relative to water quality intended for human consumption stood at 99.84%, maintaining the upward trend recorded in previous years. Similarly the percentage of compliance with the parametric values (PV), changed from 97.62% in 2008 to 97.84% in 2009.

# NOISE



Population exposed to Noise, Lden in dB (A), major transport infrastructure (MTI) by road, rail and air (December 2009)



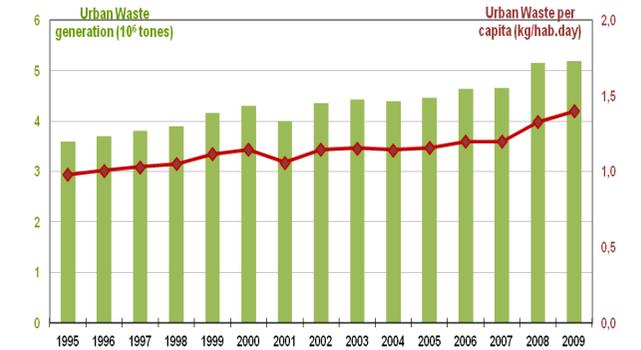
Source: APA, 2010

Although only some road infrastructure have been reported, it is clear that road noise is the most prevalent. It was also concluded that a small percentage of population is exposed to noise that exceeds the admissible limits, and action plans should focus primarily on this population.

# WASTE



Generation of urban waste per capita in mainland Portugal



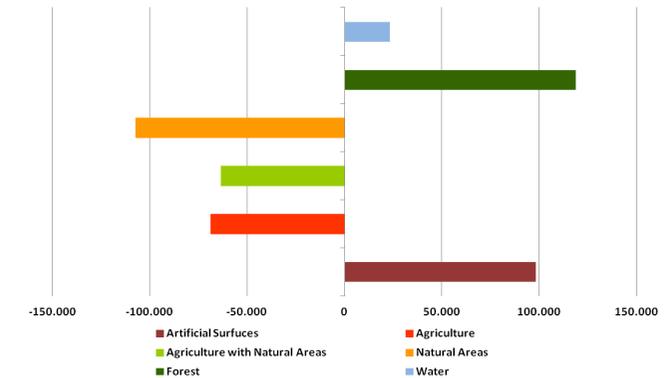
Source: APA, 2010

In 2009, 5,185 million tons of urban waste were produced on the mainland, a value higher than the target set by PERSU II by about 140 000 tons. The annual per capita production in our country in 2009 was 511 kg, which corresponds to a daily production of 1.4 kilograms per capita, an amount that despite having increased since 2004 is below the European average.

# LAND USE



Variation in the area of each class of land use between 1986 and 2006



Source: IGP, 2010

The analysis of the land cover classes that have changed for the period 1986 to 2006, the "artificial surfaces" was the class with the biggest increase of about 46% growth, done especially at the expense of agricultural areas. The forest, despite recording the largest absolute growth, grew only 4%, since this is the most abundant class in the country.