



FACTS & FIGURES SUMMARY FOR THE *MÉMENTO 2015* (2015 “MEMO”)

Information available at 31 December 2014

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The last few years have contributed a fair amount of new data on the environment, in particular since the latest edition of the *Mémento* in 2011. This new data has been produced, in particular, through regional plans being drawn up in the fields of climate, ecological continuities, regional planning and development, waste, water management, and flood risk. New themes are thus enriching this fourth edition: vulnerability to climate change (urban heat island, health risks), citizen-based territory schemes, regional plan for ecological consistency, regional environmental plan for riverbanks, nature in the city, organically sourced materials, and stakeholders in environment education and in sustainable development.

The geographical and socioeconomic context

Land use and land cover

Farmland, woodland, and natural areas account for a total of 77% of the surface area of Île-de-France. The remainder corresponds to developed urban spaces. Agriculture accounts for about 50% of the surface area of the Region. Woods and forests cover nearly one quarter of the Region. Natural areas and surface water areas cover 3% of the surface area of the Region.

Population

Île-de-France had a population of 11.85 million at 1 January 2011, i.e. 19% of the population of France (excluding overseas possessions and territories).

Economy

Île-de-France contributes 31% of France's GDP. It accounts for over 6 million jobs (91% of which are salaried). It includes the 2nd busiest airport hub and the 2nd busiest inland waterway port infrastructure in Europe, and it is the leading industrial region and the leading food industry region in terms of added value in France. The world's largest fresh produce market is located within its territory.

The Region imports 67% of the resources it consumes (mainly petroleum products and manufactured products), and it exports 1/3 of its output. The consumption of resources *per capita* is 41 tonnes (metric tons) *per capita* per year (46 tonnes *per capita* per year in France).

Climate change

Direct greenhouse gas emissions

In 2012 direct greenhouse gas emissions were 41 mega-tonnes of CO₂ equivalent or "MtCO₂e" (about 10% of France's emissions). 95% of direct emissions are due to CO₂.

The 2 major sources of greenhouse gas discharge are residential and tertiary heating (41% of emissions) and road traffic (32% of emissions).

Direct and indirect CO₂ emissions

Direct and indirect CO₂ emissions due to generating the energy (electricity and district heating) consumed in Île-de-France totalled 42.5 mega-tonnes in 2012. The carbon footprint from tourism accounts for 17.5 MtCO₂e.

Territory schemes

Local Agenda 21s

The 2015 panorama of the local Agenda 21s identifies 160 schemes declared in 2014 (regional council, 4

département councils, 3 regional nature parks, 16 inter-commune authorities, and 136 communes).

The Territory Forest Charter

Set up in 2001, the territory forest charter is a planning and sustainable development tool for the territory, without any regulatory value. It aims to include the forests to a greater extent in their economic, ecological, social, and cultural environments. Four charters have been signed in Île-de-France for 139 communes: Regional Nature Park of *Le Gâtinais*, Regional Nature Park of *l'Oise-Pays de France*, *Forêt de Sénart* (Sénart Forest), and *Arc Boisé du Val-de-Marne* (Wooded Arc of the Val-de-Marne).

Territory Climate-Energy Plans

28 local authorities have voted their territory climate-energy plans (PCETs) and 67 have started schemes. 102 local authorities have an obligation to implement a PCET (because they have populations of 50,000 or more) and 10 are implementing them voluntarily (pursuant to the French law of 2015 on energy transition for green growth, the PCETs are going to become PCAETs (territory climate-air-energy plans).

The Regional Nature Parks

The Regional Nature Parks were set up in 1967 to protect and enhance major inhabited rural spaces. Île-de-France currently has 4 regional nature parks (*Haute vallée de Chevreuse*, *Vexin français*, *Gâtinais français*, and *Oise-Pays de France*) and 2 others are in the planning stages (*Brie et Deux Morin*, and *Bocage gâtinais*).

The green economy

In Île-de-France, there are 246,000 jobs in the green economy, those jobs corresponding either to “green” occupations (environmentally oriented trades) or to “greening” occupations (trades incorporating an environmental dimension).

If sectors outside the green economy are also included, in 2010, the total number of green professionals was 26,400 and the total number of greening professionals was 744,800.

Summary environment indicators

Ecological footprint

An “average” Île-de-France resident had an ecological footprint (productive surface area necessary for a population to sustain its way of life in a given territory) of 4.81 global hectares or “gha” in 2014. Expressed by type of consumption, the food sector accounts for 44%, the goods sector for 27%, and the housing sector for 16%.

An Île-de-France resident has a biocapacity (biologically productive surface area) of 0.54 gha.

The Environment Quality Indicator (EQI, or “IQE” in French)

Based on the themes of air and noise, climate, water, use of space, fauna and flora, and use of resources, the EQI is 55 for the Île-de-France Region and 56 for France (updated in 2015).

Environmental inequalities

- It would appear that 13% of the population and of the jobs of the Region are exposed simultaneously to at least three established sources of pollution and inconvenience (out of the 5 indicators selected: air pollution, noise, soil pollution, water pollution, and chronic industrial pollution).
- 35% of Île-de-France residents declare they work in a noisy environment.
- 11% of Île-de-France residents say that they suffer from a combination of noisy work conditions and substantial noise discomfort at home.

Nature and biodiversity

Ecomos

According to Ecomos (map of the natural areas of Île-de-France), 92.5% of the natural spaces are made up of deciduous forests (67.5%), coniferous forests (4%), and grasslands (21%).

The Regional Plan for Ecological Consistency

The Regional Plan for Ecological Consistency (SRCE), adopted in 2013, aims to stem the loss of biodiversity by preserving and repairing ecological continuities.

The inventories

The inventories of the natural areas indicate that 19% of the surface area of the Region is covered by natural zones of faunal and floral ecological interest (ZNIEFFs).

The protections

- 8% of the Region's surface area protected as Natura 2000 areas.
- 11 regional nature reserves, 4 national nature reserves, and 36 biotope protection orders.
- 8.5% of the Region's surface area protected as natural areas.
- 37% of the Region's surface area protected other than as natural areas.

Water

According to the land use and land cover figures given in the 2012 land use map, the Region's surface water covers 15,597 ha (1.3% of the surface area of the Region), and its wetland areas cover 17,933 ha (1.5% of its surface area). The volumes drawn off in 2012 were 911.1 mega-tonnes (Mt) for domestic use, 685.2 Mt for industry (42%), and 29.9 Mt for farming (2%).

Local Water Management and Planning Plans

In 2014, of 22 Local Water Management and Planning Plans (SAGEs), 3 were approved and undergoing their first revisions, 2 were being implemented, 4 were being drawn up, and 1 had an area that was yet to be defined.

Basin Contracts

The Île-de-France Region had 20 basin contracts that were active. Those contracts contain technical and financial commitments and are entered into between local commissioning authorities and financial partners for rehabilitating and enhancing aquatic environments within given boundaries and for terms of 5 years, in general.

Target of “zero pesticide” used by local authorities

Of the 72% of *communes* for whom information was available in June 2015 in the survey Natureparif, 93% of them were committed to reducing pesticides, as were 6 out of 8 *départements*.

Domestic wastewater and sewage treatment

Domestic wastewater and sewage treatment is handled by 500 public sewage works and over 80 private sewage works.

Health

In 2012, the bacteriological quality of the water consumed was good to excellent for 99.9% of the population, pesticide content conformity was 98.7% and nitrate conformity was 99.9%.

Farming and Forestry

Farming

The 2010 farm census showed that there were **more than 5,000 farms** and the Utilised Agricultural Area (UAA) in Île-de-France represented **48% of the regional area**. Field crops accounted for 93% of the UAA.

Short distribution channels (selling direct from the producer to the consumer, or indirect with only one intermediary) are in place for 800 farms (16%). The Associations for the Preservation of Peasant Farming (AMAPs) had 289 groups of members, 216 of those groups being members of the Île-de-France network. In **organic farming**, 9,445 ha were identified (1.6% of the UAA) as were 200 farms (4%).

Prairie contracts (integrated farming) were signed by 138 farmers for the period 2009-2013.

Consumption of phytosanitary products for the main field crops is measured by the mean treatment frequency indicator (IFT): it was 5.6 in 2011.

Forestry

According to the 2012 MOS (land use map), the **Region's wooded area** was 287,313 ha (24% of the surface area of the Region), 95,612 ha of which was open to the public.

66% of the total forest area is privately owned (16,500 owners own 1 or more hectares). The potential volume of wood is, on average 175 ± 14 cubic metres per hectare (m^3/ha). Deciduous trees account for 93% of this standing tree volume. **43 species of tree** have been identified in the forests of Île-de-France.

The **volume of wood harvested** in 2012 was 314,300 m^3 prior to being transformed.

Certified forests accounted for 114,840 ha (PEFC) and 8,143 ha (FSC). 220 firms are PEFC certified and 260 sites are FSC labelled.

Geological heritage and materials

Geological heritage

An inventory of the geological heritage of the Region is scheduled to run from 2015 to 2017.

Materials

98 **materials extraction sites** totalling 7,294 hectares were authorised in 2012 (including 4,301 hectares and 65 sites for aggregates). These areas were 80% field-crop farmland spaces. 45% of the aggregates consumed are imported from other regions. Through its production of recycled aggregates, Île-de-France contributes 25% of the national output.

Île-de-France has assets to offer in terms of biosourced materials (materials of plant or animal origin): 1,150 ha of hemp, 1,800 ha of flax, 300 ha of *Miscanthus* (elephant grass), 365,000 ha of cereal crops, some of the straw from which could be used as a **biosourced material**.

Waste

Household and Similar Waste (HSW)

- 77 inter-*commune* structures handle collection for 57% of the population.
- 28 corporations handle treating the HSW for 99.4% of the population.
- 5.6 Mt of HSW was collected in 2012. From 2000 to 2012, the quantities of HSW collected decreased by 35 kg *per capita*, going from 507 kg *per capita* to 472 kg *per capita*. Treatment of the collected HSW breaks down as follows: incineration (62%), landfill in storage centres (13%), materials recycling (13%), composting (7%), anaerobic digestion or "methanisation" (1%).

Other waste

- Production of **hazardous waste** in 2011 was estimated at 970,300 tonnes.
- 36,000 tonnes of **waste from healthcare activities** was produced in 2011.
- 6 million tonnes of **non-hazardous waste** from economic activities was produced in 2010.
- 30 million tonnes of **building site waste** was produced in 2010.

Employment

- 3,400 full-time equivalent (FTE) jobs were counted at the treatment facilities. Three in five jobs are identified as being located at waste sorting and transfer stations.

Urban planning and housing

Urban planning

The total surface area of the Region is 1,206,500 ha (12,065 square kilometres), 77.4% of which is accounted for by farmland, woodland, and natural spaces, and 22.6% of which is covered by artificialised or hard surfaces (272,800 ha, including 192,300 ha of developed urban spaces).

The annual growth in developed urban areas according to the Region's Master Plan (SDRIF) was 897 hectares per year from 1999 to 2012.

The surface area of urban green spaces open to the public in the inner suburbs of Paris is coming close to the threshold of 10 square metres (m²) *per capita* recommended by the WHO and by the Region's Master Plan or "SDRIF" (12 m² *per capita* for the Seine-Saint-Denis *département*). For Paris, the ratio is 3.9 m² *per capita*. In the outer suburbs, all of the *départements* now offer in excess of 25 m² *per capita*, except for Val-d'Oise, where the ratio is 15 m² *per capita*.

Sustainable urban development

Les écoquartiers (**eco-districts** or eco-neighbourhoods) is a national scheme for identifying exemplary projects on 7 topics: water, waste, biodiversity, mobility, energy conservation or "eco-sufficiency" and renewable energies, urban densities and forms, and green construction). There have been 12 prize-winning projects over the following four years: 2009, 2011, 2013, and 2014.

Les nouveaux quartiers urbains (**new urban districts** or neighbourhoods) is a regional scheme for setting up innovative and exemplary neighbourhoods or districts. There have been 24 prize-winning projects in 2009, 2011 and 2013.

L'approche environnementale de l'urbanisme (**the environmental approach to urban planning**) is a scheme for incorporating the environmental dimension into each stage in the urban development project: There have been 10 prize-winning projects in the following three years: 2010, 2011, and 2013).

Heritage

Île-de-France has 3,997 protected monuments (including 1,128 classified and 2,869 listed), 245 classified sites, 258 listed sites, 44 landscape and urban architectural heritage protection zones (ZPPAUPs), and 6 architecture and heritage enhancement areas (AVAPs). The latter, which are to replace the ZPPAUPs, incorporate environmental issues.

Housing

The Île-de-France housing capacity counts 5,522,000 dwellings (16.6% of the national capacity), 91% of which were main residences at 1 January 2012.

Housing and health

The capacity of the private sector that was potentially unfit for habitation was 4.4% of the private capacity of Île-de-France in 2011.

772 Prefect's Orders for insalubrity were issued for the Region in 2012.

248 cases of carbon monoxide poisoning were recorded in 2012.

From 2008 to 2011 the number of cases of lead poisoning fell from 183 to 99.

Energy precariousness

Energy precariousness (a situation of fuel poverty where the energy spending levels are high for the dwelling and/or the dwelling is poorly heated) would appear to have concerned 11% of Île-de-France residents in 2006.

Mobility

2010 Regional Transport Survey

According to the **Enquête Globale Transport 2010** (2010 Regional Transport Survey), nearly 41 million journeys take place every day in Île-de-France, including 70% outside Paris. 39% of the journeys are made on foot, 38% by car, and 20% by public transport.

On average, the straight-line distance travelled for a journey (distance as the crow flies from the place of departure to the place of arrival) by car is 6.1 km and takes 23 minutes.

On average, the straight-line distance of a journey on public transport is 8.9 km and takes 48 minutes.

73% of **vehicles** that are aged 10 years or older emit more than 160 grams (g) of CO₂ per km, i.e. one half of the emissions from the entire Île-de-France fleet.

58% of the RATP (Paris Transport Corporation) buses complied with the Euro 4 Standard in 2013, and so did 60% of the Optile (operators other than the RATP) buses.

Bicycle

The daily number of journeys exclusively by bicycle reached 650,000 in 2010, i.e. twice the number made in 2001. A study by the Regional Health Observatory (*Observatoire Régional de la Santé*) has shown that the health benefits of cycling were considerably higher than the risks.

The total distance covered by cycle paths reached 3,532 km in 2012. The Île-de-France urban travel plan has identified 100 urban gaps to be closed by 2020. The Île-de-France Region is crossed by 5 long-distance cycling routes.

Car clubs (or "car-sharing")

2,788 *Autolib* electric cars were freely available across 64 *communes* in 2014. 278 establishments, 80% of which are businesses, are committed to travel schemes (company and inter-company corporate travel plans).

Goods

201 mega-tonnes of goods were transported in 2012, mainly by road (87%). The road network is made up of 866 km of motorways and expressways, 320 km of "A roads" (national roads), 9,600 km of "B roads" (county roads), and 26,000 km of "C roads" (municipality roads). **Inland-waterway transport** accounts for 7.8 billion ton-kilometres.

Airports

700,000 movements were recorded for the **airports** of Paris-Charles-de-Gaulle and Paris-Orly in 2013. Paris-Charles-de-Gaulle is the 8th busiest airport in the world and the 2nd busiest in Europe for passenger traffic.

Sound environment

22% of the population of the conurbation of Paris are potentially exposed to street-frontage noise levels greater than the regulatory values.

In the Paris conurbation, 79% of **potentially excessive exposure to noise** was due, in 2015, to road traffic, 3.5% to air traffic, and 3.7% to rail traffic. About 60,000 people are apparently in a situation of multiple environmental exposure. In Europe, noise is the **second biggest cause of the environmental burden of disease** after air pollution. 75,000 years of healthy life are apparently lost per year in the Paris conurbation due to exposure to environmental noise. 67% of the competent authorities in the Paris conurbation had, by June 2015, produced their **environmental noise prevention plan** (PPBE), such action plans having been made mandatory by European Directive 2002/EC/49.

Air quality

About 3.4 million Île-de-France residents are potentially exposed to levels of pollution that do not comply with the regulations.

Road traffic was, in 2012, responsible for 56% of nitrogen oxide emissions (43% due to private vehicles, 91% of that being due to diesel private vehicles), for 28% of PM₁₀ emissions (particulate matter < 10 µm), for 35% of PM_{2.5} fine particulate matter emissions, for 14% of hydrocarbon emissions (NMVOCs (Non-Methane Volatile Organic Compounds)), and for 32% of greenhouse gas emissions.

1.4 million residents of the conurbation, living close to the main traffic routes, were, in 2013, potentially exposed to more than the daily limit value of **PM₁₀ particulate matter**. All of the 11.7 million Île-de-France residents were, in 2013, potentially exposed to more than the air quality target for **fine particulate matter (PM_{2.5})**.

The **Atmo index** gives the quality of air in French conurbations having populations of over 100,000. On average, for 4 pollutants (SO₂, NO₂, O₃, and PM₁₀), it characterises the quality of ambient air in the Paris conurbation. In 2013, it was very good to good for 63% of the year, average for 18% of the year, and mediocre to very poor for 19%.

Energy

Energy production

The Region's electricity output (generated with renewables and non-renewables) covers, on average, 9% of the electricity consumption of the Île-de-France Region.

Energy consumption Final energy consumption (energy consumed in its transformed form by the end user) was, in 2012, 23.9 mega tonnes of oil equivalent or "Mtoe" (14% of the French national consumption), i.e. 2.03 toe *per capita* (national average 2.45 toe). The sectors that consume the most energy are transport (44%), housing (30%), and the tertiary sector (19%). Sales of motor vehicle fuel break down into 76% for diesel and 24% for petrol (in volume). 18.6% of the energy saving certificates issued since 2006 concern Île-de-France.

Natural risks and major technological risks

Natural risks

762 *communes* (59%) are concerned by **natural risk prevention plans** (PPRNs), for flooding, landslides, subsidence, or drought, that are approved or being drawn up.

561 *communes* out of 1,300 are potentially exposed to **flood risks** by rivers and streams bursting their banks, i.e. 50,180 ha (14.6%), 845,601 inhabitants (7.3%), and 435,000 dwellings (8%).

81 *communes* out of the 189 in the Greater Paris metropolis lie within the flood risk territory (TRI) of the "Île-de-France Metropolis".

90 **natural disaster recognition orders** were issued in 2013.

551 *communes* (40%) have been recognised at least once as being in a state of natural disaster with respect to shrinkage and swelling of clay soils since 1983.

4,739 ha of undermined zones were recorded for 396,175 inhabitants at 1 January 2014.

Technological risks

96 establishments were classified as **Seveso sites** (European Directive 96/92/EC), including 39 at the upper threshold at 1 January 2014.

506 polluted or potentially polluted sites and areas of soil pollution or potential soil pollution are identified in Île-de-France by the national “Basol” database, and 36,739 former industrial and service activity sites are reported in the national “Basias” database.

21 **technical risk prevention plans** (PPRTs) out of 26 were approved at 1 January 2014.

Environmental awareness-raising, and environmental education

Île-de-France has **over 1,000 associations** for protecting and defending the environment. 350 are affiliated to *France Nature Environnement Île-de-France*. 11 associations have regional-level approval and 49 have *département*-level approval. **100 educational farms** were identified in 2012 by the Region's Agency for the Environment and for new Energies (ARENE).

102 environment education structures are members of GRAINE Île-de-France, the Region's Group for facilitation and information on the environment and nature.

The *Vivacités* network for a sustainable city has about one hundred members.

Regional environment agencies and observatories

The Regional Council, www.iledefrance.fr

The Regional Agency for the Environment and for New Energies (Arene), www.areneidf.org

The Association for Monitoring the Quality of Air in Île-de-France (Airparif), www.airparif.asso.fr/en/index/index

The Observatory of Noise in Île-de-France (Bruitparif), www.bruitparif.fr/en

The Regional Observatory of Waste in Île-de-France (Ordif), www.ordif.com/public/english/?id=13777

The Regional Agency for Nature and Biodiversity in Île-de-France (Natureparif), www.natureparif.fr

The public-private corporation dedicated to energy renovation of buildings and to renewable energies (SEM Energies Positif), www.energiespositif.fr

The full text of the *2015 Memo* is only available in French.