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Households & the Environment
Key Figures - 2017 Edition

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Contents

Households & the Environment
Key Figures - 2017 Edition

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Foreword

The selection of indicators presented in this publication is an up-to-date and improved version of the 2011 publication of key figures called 'Household Consumption and the Environment'. This new version is a contribution to the work carried out at the national and international level on sustainable household consumption.
It focuses on the relationships between household practices and lifestyles (housing, transportation, food, waste) and the environment (energy, water and space consumption, waste generation, emissions of pollutants and greenhouse gases...).

— Sylvain Moreau
DEPARTMENT HEAD SERVICE DE LA DONNÉE ET DES ÉTUDES STATISTIQUES (SDES)/DATA AND STATISTICAL STUDIES

Part 1

Contextual data

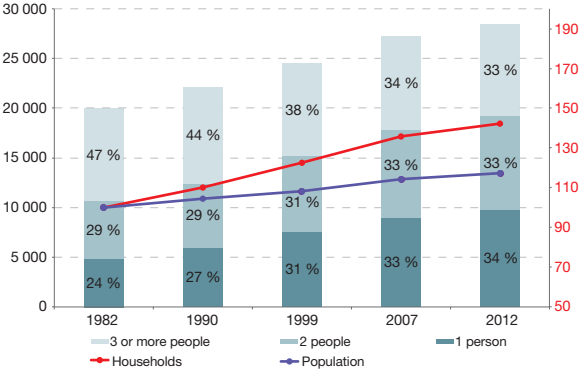
— The number of households is growing faster than the population. At the same time, the average household size is decreasing. Over the last fifty years, final household consumption expenditure has tripled and its structure has changed profoundly under the influence of changes in the lifestyle of households, resulting in an increase in their carbon footprint.

Household composition

CHANGE IN THE NUMBER AND SIZE OF HOUSEHOLDS

Households, in thousands

On an index basis where 1982 = 100



Scope: All of France.
Source: *Insee. Statistical Processing: SDES*

Definition

A household, in the sense of a population census, refers to all persons who share the same principal residence, these people not necessarily being united by kinship. A household may consist of one person. There is equality between the number of households and the number of principal residences. People living in mobile homes, mariners, homeless people, and people living in communities (worker hostels, retirement homes, university residences, detention centres, and so on) are considered to be living outside a household.

Analysis

The number of households is growing faster than the population. There were 28.4 million households in France in 2012, compared to 19.9 million in 1990. At the same time, the average household size is decreasing (2.3 persons on average per main residence in 2012 compared with 2.7 in 1982).

In 1982 almost half of households were composed of 3 or more people,while in 2012 this category represented only a third of households. Conversely, over the same period, the number of people living alone has doubled. The number of two-person households (9.3 million in 2012) has also increased (+ 65%).

This change in the composition of households reflects the transformation of lifestyles (an increase in the number of single-parent and stepfamilies, a decrease in the number of marriages) and demographic changes (people are living longer). This is accompanied by an increase in the number of dwellings, the amount of travel and typical consumption.

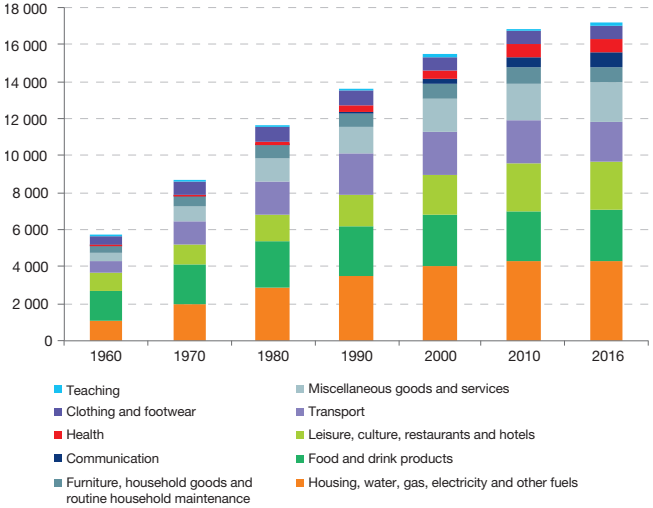
To find out more

- Insee (French National Institute of Statistics and Economic Studies) Topics > Demography > Couples - Families - Households
- *(in French) Couples et familles*, *Insee Références*, December 2015
- *(in French) France, portrait social*, *Insee Références*, November 2015

Household expenditure

CHANGE IN HOUSEHOLD CONSUMPTION EXPENDITURE BY FUNCTION

in €/per capita



Note: actual household consumption expenditure by function, in chain-linked volume at previous year's prices.
Scope: All of France including overseas departments.
Source: *Insee (National accounts, population estimates). Statistical Processing: SDES*

Analysis

Final household consumption expenditure has been rising steadily in France over the past fifty years. It has tripled in volume since 1960, from €5,281 per capita to €17,074 per capita in 2016. In 2015, this amount was slightly higher than the European average (EU-28) - (€16,820 per capita compared to €14,504).

In 2016, accommodation (including 'unavoidable' expenditure: rent, energy consumption, and so on) was the largest category of expenditure by French households, followed by food, whose share of total household expenditure fell significantly over the period in question (28% in 1960 compared to 16% in 2016), and then by spending on leisure and transportation.

With the emergence of mobile telephony and the internet in the 1990s, the share of information and communication technology products increased from 0.1% in 1960 to 5% in 2016. This increase is unparalleled in the other categories of expenditure. This illustrates the impact of societal changes on household consumption patterns.

Definition

Household consumption expenditure covers the budget spent by households on goods and services used for the direct satisfaction of 'individual' human needs. It is limited to expenses that households bear directly. It includes the share of health, education and housing expenditure for which they are responsible, after any reimbursements.

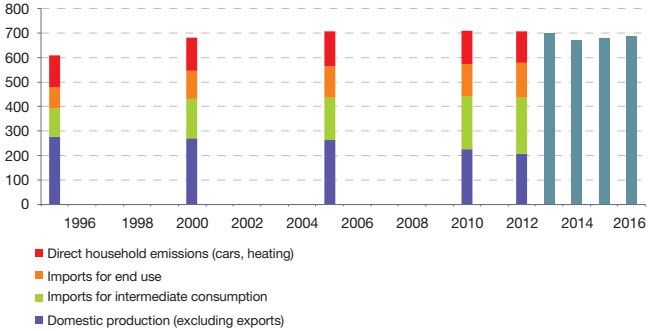
To find out more

• Insee (Institut national de la statistique et des études économiques/French National Institute of Statistics and Economic Studies)
Topic> Living conditions, society > Household consumption and equipment

Household carbon footprint

CHANGE IN DIRECT AND INDIRECT COMPONENTS OF THE CARBON FOOTPRINT BETWEEN 1995 AND 2016

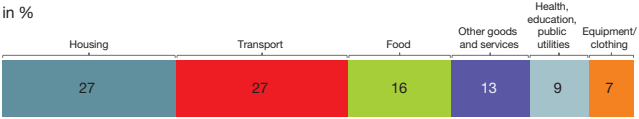
In millions of tonnes of CO_2e



Notes: footprint calculated for the three main greenhouse gases (CO_2, CH_4, N_2O)and for total final demand excluding exports (household consumption, utilities, investments) according to the new 2017 methodology; 2013-2016 data estimated.
Scope: mainland France.
Sources: *IEA; Citepa; French Customs; Eurostat; Insee. Statistical Processing: SDES, 2017*

COMPOSITION OF THE CARBON FOOTPRINT IN 2012, BY SOURCE OF CONSUMPTION

in %



Note: footprint calculated for the three main greenhouse gases (CO_2, CH_4, N_2O) according to the new 2017 methodology.
Scope: mainland France.
Sources: *IEA; Citepa; French Customs; Eurostat; Insee. Statistical Processing: SDES,2017*

Analysis

In 2016, the carbon footprint for the national demand was estimated at 689 million tonnes of CO_2e (Mt CO_2e), or 10.7 tonnes per capita. It increased by 13% in volume between 1995 and 2016, while remaining relatively stable per capita.

Emissions associated with imports accounted for more than half of the carbon footprint of households. Between 1995 and 2012, they increased by 85%. Conversely, emissions associated with domestic production declined by a quarter over the period observed. Direct emissions generated by the household use of passenger cars and domestic heating remained relatively stable (-3%).

Emissions associated with housing, transportation and food made up 70% of the carbon footprint of households in 2012. Emissions generated by other goods and services (cultural and leisure activities, telecommunications, financial services and insurance, and so on), utilities and household equipment and clothing make up the remaining third.

Definition

The carbon footprint that results from household consumption includes GHGs directly emitted by households (cars, heating) and emissions generated during the manufacture and transportation of products consumed by households, regardless of whether these products are manufactured in France or abroad.

To find out more

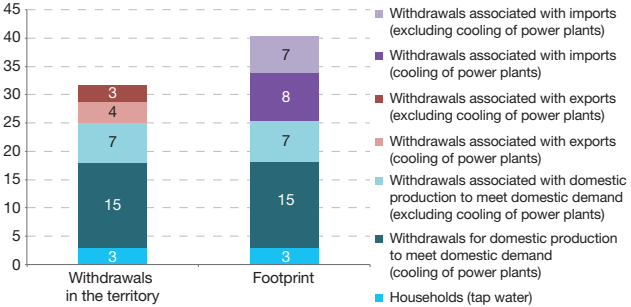
• *Chiffres clés du climat - France et Monde, édition 2017*, CGDD/SOeS, *Datalab*, October 2016, 78 p.

• Service de la donnée et des études statistiques/Data and Statistical Studies Department (for example SOeS)
(in French) L'essentiel sur > Énergie et climat > L'empreinte carbone

Household water footprint

THE 'BLUE' COMPONENT OF THE WATER FOOTPRINT OF HOUSEHOLDS AND WATER WITHDRAWN ACROSS THE TERRITORY IN 2007

In billions of m^3 of water



Note: footprint of domestic demand including household consumption, public utilities and investments.
Sources: *water agencies; French Customs; Eurostat; Insee. Statistical Processing: SDES*

Definition

Here are the results for the 'blue' component of the water footprint (withdrawals for the distribution of drinking water, agriculture, industrial uses and cooling of power plants).
They do not include the 'green' component (linked to agriculture - share of rainwater stored in soil that is spontaneously absorbed by agricultural crops) or the 'grey' component (volume of water needed to assimilate pollution to achieve a predetermined level of quality). The blue component looks at all withdrawals, including water returned to the environment near the withdrawal site with no pollution other than thermal pollution (this is particularly the case for withdrawals for cooling electricity generating plants).

Analysis

France's water footprint can be used to estimate the level of pressure exerted by households on water resources on a global scale according to their consumption patterns (goods and services, including utilities, and investments: infrastructure, housing, equipment).

The water footprint that results from consumption in France includes water directly consumed by households (tap water) and that used in the production of goods and services consumed by these households, regardless of whether they are produced in France or abroad. It is equal to the sum of water withdrawn from the French territory and that withdrawn abroad for the production of goods and services imported into France. The volume of water withdrawn in France for the production of exported goods and services is subtracted from this volume.

In 2007, the blue component of the water footprint varied from 270 to 650 m^3/per capita, depending on whether withdrawals for cooling electricity generation facilities are taken into account.

The footprint is systematically greater than the water withdrawals carried out within the territory (from 215 to 520 m^3 per year per capita, depending on whether the samples intended to cool electricity generation facilities are taken into account). This may be explained by the difference between the volume of water associated with France's exports and the volume associated with its imports. France is therefore a net importer of water virtually associated with its foreign trade. Depending on the scope, around 35% to 45% of the footprint is associated with imports.

To find out more

• *Les prélèvements d'eau douce en France : les grands usages en 2013 et leur évolution depuis 20 ans,* CGDD/SOeS*, Datalab,* January 2017, 26 p.

Part 2

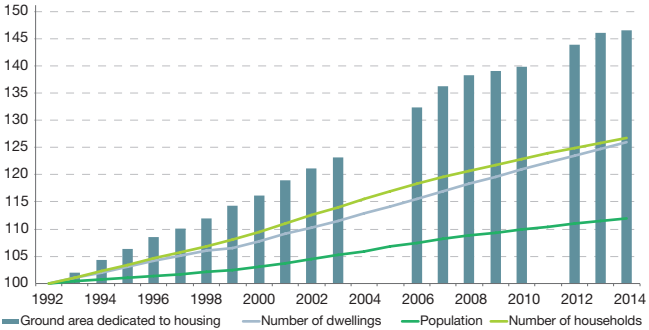
Housing: what kind of use of resources?

— The area occupied by residential housing has increased almost five times faster than the population over the last two decades, with an increase in the number of households, a decrease in the number of people per dwelling, and extensions to dwellings. Daily domestic consumption of drinking water is decreasing, as are greenhouse gas emissions from the residential sector, while final energy consumption continues to increase.

Housing and land take

CHANGE IN LAND TAKE AS A RESULT OF HOUSING

On an index basis where 1992 = 100



Notes: break in series between 2003 and 2006; 2011 not available for Teruti and Teruti-Lucas surveys.
Scope: mainland France.
Sources: *Insee; French Public Statistics Service (SSP), Teruti and Teruti-Lucas surveys.*
Statistical Processing: SDES, 2016

Definition

Land take is the loss of the natural or agricultural character of an area, in favour of urban, industrial and commercial areas and transport infrastructures.

Analysis

In 2014, individual and collective housing occupied 4% of the national territory with 2.4 million hectares used, representing almost half of land taken. The other half includes industrial and commercial areas, roads, construction sites, car parks, green spaces, and so on.

The area occupied by housing has increased almost five times faster than the population over the last two decades. This increased pressure on the land may be explained by the combination of several factors: the increase in the number of households (faster than population growth) and the decrease in the number of people per dwelling, extensions to dwellings and adjoining spaces, and the growth of individual houses, particularly in rural areas. Thus, between 1984 and 2013, the average surface area of dwellings increased by 11%, from 82 m² to 90.9 m² per dwelling, while the average number of occupants decreased (from 2.7 in 1984 to 2.3 in 2013). At the same time, the average surface area occupied per person also increased by 31%, rising from 30.7 m² to 40.3 m² (source: Insee, Housing survey).

This phenomenon of land take is particularly marked in departments with high population growth such as Bouches-du-Rhône, Var and Vaucluse, but also in Loire-Atlantique, Ille-et-Vilaine and Aquitaine.

To find out more

- Service de la donnée et des études statistiques/Data and Statistical Studies Department (for example SOeS)

(in French) Essentiel sur > Sol et sous-sol > Sol > L'artificialisation des sols

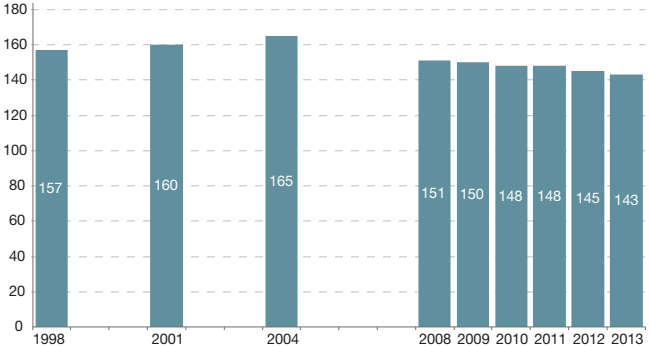
- (in French) La statistique agricole (Ministry of Agriculture)

Rubrique > Territoire, environnement

Housing and water use

CHANGE IN DAILY DOMESTIC CONSUMPTION OF DRINKING WATER

In litres per capita and per day



Scope: All of France.
Sources: *SDES; French Public Statistics Service (SSP), Water Surveys 1998, 2001, 2004 and 2008; National Observatory of Public Water and Sanitation Services from 2009*

Definition

The consumption of drinking water is called domestic, as opposed to the consumption of water in order to carry out industrial and agricultural activities. It may be compared to household water consumption, although it also includes a share pertaining to small businesses.

Analysis

Since 2004, the daily domestic consumption of drinking water has decreased in France (-13% between 2004 and 2013). This trend follows that of withdrawals for the drinking water supply (-18% between 2002 and 2013). The increase in the price of water, along with the wider availability of household water-saving devices, contribute in particular to this gradual decrease.

In 2013, the average French person consumed 143 litres of water per day, compared to 165 litres in 2004 and 151 litres in 2008. However, this average masks strong regional disparities, the level of consumption being particularly related to climate, tourist pressure and the presence of private pools and gardens.

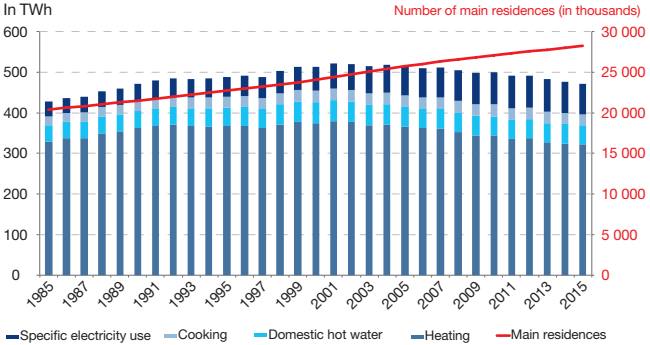
Thus, average per capita domestic consumption of drinking water is higher than the national average in departments such as Bouches-du-Rhône (181 litres per day), Vendée (173 litres per day) and Gard (159 litres per day), while it is lower in other departments, particularly in Nord (97 litres per day), Pas-de-Calais (112 litres per day) and Gironde (132 litres per day).

To find out more

- http://www.statistiques.developpement-durable.gouv.fr
(in French) L'essentiel sur > La ressource en eau
- *(in French) L'eau et les milieux aquatiques – chiffres clés – édition 2016*, CGDD/SOeS, *Repères*, February 2016, 56 p.
- *(in French) L'environnement en France - édition 2014*, CGDD/SOeS, *Références*, October 2014, 382 p.
- Observatoire national des services d'eau et d'assainissement/National Observatory of Water and Sanitation Services
- Water Portal

Housing and energy consumption

CHANGE IN FINAL ENERGY CONSUMPTION IN THE RESIDENTIAL SECTOR, BY USE



Note: data corrected for climatic variations (Ceren method).
Scope: mainland France.
Sources: *Ceren; Insee*

Definition

Specific electricity usage includes in particular the use of electricity needed for domestic lighting, operating household appliances and computer and audiovisual equipment.

Energy Performance Diagnostics (French: DPE) indicate a building's energy efficiency ratings, assessed on the basis of energy consumption and greenhouse gas emissions. It is expressed on two labels (energy and climate) classified from A to G, with A corresponding to best performance.

Analysis

In 2015, final residential energy consumption was 472 terawatt hours (TWh), a 10% increase compared to 1985. After steady growth in the 1990s (+22% between 1985 and 2001), it has been gradually decreasing since the beginning of the 2000s (-9% between 2002 and 2015), while the number of main residences continues to increase.

Over thirty years, consumption related to heating, the primary use of energy, decreased by 2%, from 330 TWh in 1985 (77% of the residential sector's final energy consumption), to 323 TWh in 2015 (68%).

At the same time, final energy consumption related to other uses has increased (+18% and +17% for domestic hot water and cooking respectively). Consumption related to the specific use of electricity has seen the largest increase (+ 111% over the period observed). Rising from 8% of final energy consumption in 1985 to 16% in 2015, it has become the second largest factor in final energy consumption in the residential sector. The rise of information and communication technologies is contributing to this change. For example, according to Insee, the proportion of households equipped with a computer increased from 45% in 2004 to 77% in 2013.

In order to meet the energy efficiency challenge, the objective set out in law no. 2015-992 of 17 August 2015 on Energy Transition for Green Growth is to carry out energy renovations on 500,000 homes per year, starting in 2017, with at least half of these homes being occupied by low-income households. By doing this, it aims to reduce fuel poverty by 15% by 2020. It also provides that, by 2025, all private residential buildings whose primary energy consumption is greater than 330 kWh/m² per year (which corresponds to DPE [Energy Performance Diagnostics] 'F' and 'G' labels) must have undergone energy renovation.

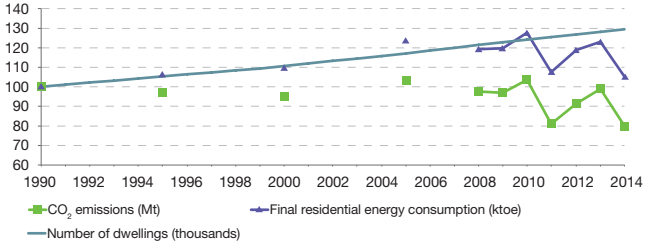
To find out more

- Service de la donnée et des études statistiques/Data and Statistical Studies Department (for example SOeS)
(in French) Thème > Énergies et climat
- Ministère de la Transition écologique et solidaire (Ministry for Ecological and Solidary Transition)
(in French) Énergie, Air et climat > Économies d'énergie
- *(in French) De plus en plus de foyers équipés de biens électroniques,* Insee, *Insee Focus*, No. 20, March 2015.

Housing and greenhouse gas emissions

FINAL ENERGY CONSUMPTION AND CO_2 EMISSIONS BY THE RESIDENTIAL SECTOR

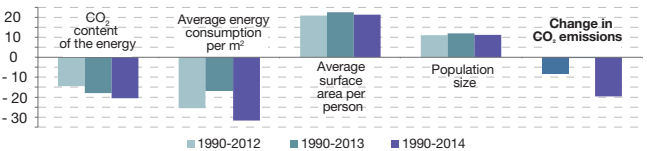
On an index basis where 1999 = 100



Note: CO_2 from energy used for heating, domestic hot water and cooking (including electricity generation and biomass).
Scope: mainland France. Data not corrected for climatic variations.
Sources: *SDES, according to Namea; Citepa, Secten format inventory (April 2016); Insee-SDES , annual estimate of housing stock. Statistical Processing: SDES,2017*

CHANGE IN THE IMPACT OF FACTORS INFLUENCING THE RESIDENTIAL SECTOR'S CO_2 EMISSIONS

In %



Reader's note: model of change in CO_2 emissions, all other things being equal.
Notes: real climate data; CO_2 from energy used for heating, domestic hot water and cooking (including electricity generation and biomass).
Scope: mainland France.
Sources: *Citepa; Insee; Ademe, Carbon base; National Union of District Heating; Statistical Processing: SDES, 2017*

Analysis

In 2014, unadjusted for climatic variations, final energy consumption by the residential sector amounted to 37,467 ktoe and generated emissions of 81.8 Mt CO_2, including emissions resulting from the consumption of electricity. Like final energy consumption, the level of these emissions is particularly low this year because of the very mild climate, with the lowest index of climatic severity observed since 1960.

Between 1990 and 2014, residential CO_2 emissions decreased by 20%, with, however, strong fluctuations according to climatic severity, resulting in an average annual growth rate of -1% per year. Conversely, over the same period, final energy consumption increased slightly (+ 5%). The number of dwellings is also growing every year at a faster pace (+18%), increasing from more than 26.2 million dwellings in 1990 to nearly 34.2 million dwellings in 2014.

These factors are having a variable effect on the change in CO_2 emissions from housing. The increase in the size of the population and the average surface area of dwellings contributes to increasing CO_2 emissions. Conversely, energy consumption per m^2 of housing has been declining since 1990. This trend may be the result of several factors: household behaviour, technical equipment (such as the installation of room thermostats, solar thermal panels) and the improvement of thermal insulation in housing. The downward trend in CO_2 content may be explained by changes in the energy mix (such as the development of renewable energies, substitution of fuels in thermal power plants), and the improvement of household heating appliances (such as the replacement of oil boilers by gas boilers).

To find out more

- *(in French) Chiffres clés du climat France et monde - édition 2017*, CGDD/SOeS, *Datalab*, October 2016, 78 p.
- Service de la donnée et des études statistiques (Data and Statistical Studies Department)

(in French) Thème > Énergies et climat

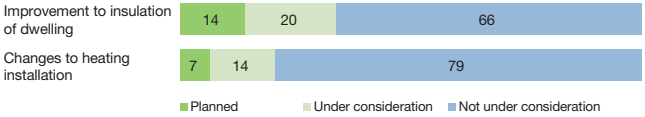
- Citepa (Centre interprofessionnel technique d'étude de la pollution atmosphérique / Interprofessional technical centre for atmospheric pollution studies)

Activities > Emission Inventories > Secten

French households and ... energy renovation of their homes

INTENDED IMPROVEMENTS TO INSULATION OR HEATING SYSTEMS IN 2016

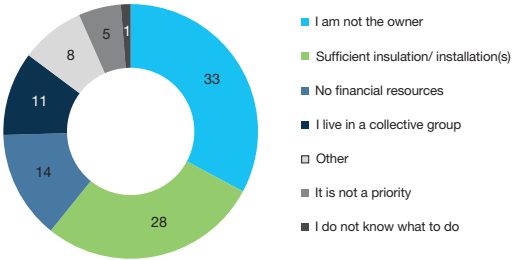
In %



Note: the question asked was 'In the future, do you intend to modify your heating system/ improve the insulation of your home?'.
Scope: All of France.
Source: *SDES (survey of household environmental practices, March 2016)*

REASONS WHY HOUSEHOLDS WERE NOT CONSIDERING IMPROVING THEIR INSULATION OR HEATING SYSTEM IN 2016

In %



Note: the question asked was 'Why don't you intend to modify the heating system/ the insulation in your home?'
Scope: All of France.
Source: *SDES (survey of household environmental practices, March 2016)*

Analysis

According to the 2016 SDES survey on household environmental practices, 34% of those surveyed are considering improvements to the thermal insulation of their homes, in the long term. Focusing on homeowners, the survey shows that the households most likely to be considering improvements to their thermal insulation in the short term are those with children (50%), those who still have oil heating (53%), those living in single-family homes (46%) and the under-35s (48%).

80% of French people do not appear to be considering changing their heating system. Seriously overrepresented in the category of those responding negatively to this question are tenants (87%) and households connected to a shared heating system (90%), as they do not have the same capacity for action as owners (75%) and households with their own heating system (77%). Excluding tenants and respondents with a shared heating system, 27% of respondents say they are considering undertaking renovations in the short term. Among the most determined to do so, the survey identifies the owners of oil-fired heating (35%, compared to the 20% wood-burner owners and 13% heat pump owners), respondents below the age of 35 (32%, compared to 24% of those aged 50 and over), and households with children (32%, compared to 25% of childless households).

When asked why they are not planning to carry out any work (modification of the heating or improved insulation), a third of the respondents claim that they have no room to manoeuvre and act, because they are not the owners. 11% of respondents insist that they do not have the freedom to decide alone because they live in a collective group. 28% of respondents do not consider renovations to be worthwhile, insofar as they deem their heating equipment and/or thermal insulation to be satisfactory. The cost of the works is an issue for 14% of households whose financial means do not allow them to consider these renovations.

To find out more

• *(in French) Quelle prise en compte de l'environnement au sein des foyers ? Analyse sociologique des pratiques domestiques des Français,* CGDD/SOeS, *Datalab Essentiel,* January 2017, 4 p.

Part 3

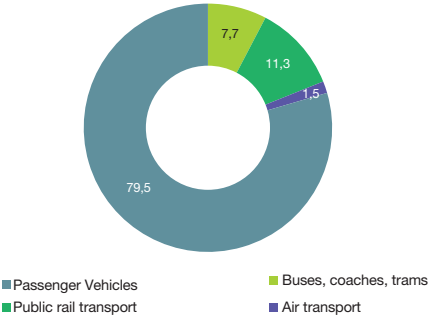
What kind of mobility?

— Cars remain the preferred means of transporting people. The proportion of people with at least one vehicle has increased, generating an increase in passenger car CO_2 emissions and air pollutant emissions. The modal share of public transport is rising slightly, while the daily use of bicycles remains a marginal mode of travel.

Modal distribution of domestic passenger transport

MODAL SHARE OF DOMESTIC PASSENGER TRANSPORT IN 2015

In % of passenger-kilometres



Scope: mainland France.
Source: *SDES (Report by CCTN, French National Transportation Accounts Commission), 2016*

Definition

Private vehicles include foreign registered vehicles and motorised two-wheelers.
Air transport only includes domestic flights to mainland France. Rail transport includes trains, rapid transit systems and metro systems.
Passenger-kilometre equals the product of the number of trips and average distance travelled. It is also equal to the product of the number of passengers and the average distance travelled by the passenger.

Analysis

Transport contributes to the consumption of resources and space, the fragmentation of natural areas, noise emissions, and to the emission of pollutants and greenhouse gases.

In 2015, domestic passenger transport accounted for 928 billion passenger-kilometres. Private vehicles are the preferred means of transporting people (79.5% overall). Public land transport accounts for less than 20% of domestic passenger transportation. Rail transport (11%) accounts for a higher proportion than road transport (8%). Domestic air transport accounts for less than 2% of all domestic passenger transport.

While the modal shares of these different modes of transport have remained fairly stable since the 1990s, domestic passenger transport, as a whole, is increasing. The largest increase has been in public land transport. Rail transport experienced the largest increase (+41% between 1990 and 2015), followed by road transport (+36%). Individual passenger transport by private vehicle increased by 23% during the period observed. After a sharp rise in the 1990s, a clear decline from 2000 to 2004 followed by a period of relative stability, air travel has been increasing once again since 2011. It increased by 25% between 1990 and 2015.

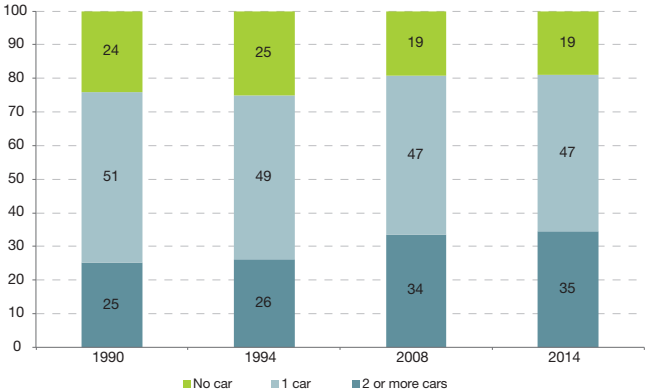
To find out more

• *(in French) Vingt-cinq années de transport intérieur de voyageurs,* CGDD/SOeS*, Études & documents,* No. 148, May 2016, 48 p.
• *(in French) Les comptes des transports en 2015, CGDD/SOeS, Datalab,* August 2016, 184 p.
• *Chiffres clés des transports - édition 2017,* CGDD/SOeS*, Datalab,* February 2017, 72 p.

Number of passenger cars per household

DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF PASSENGER CARS OWNED

In %



Scope: mainland France.
Sources: *Insee (RP 1990, RP 2008 to 2012, EAR 2013 and 2014) ; SDES (ENTD 2008, ETC 1994). Statistical Processing: SDES*

Analysis

Between 1990 and 2014, the share of households with at least one vehicle increased from almost 76% to 81%. After remaining stable in the 1990s, the share of households owning one vehicle has declined slightly since then, reaching 47% in 2014. Conversely, the share of households owning two or more vehicles increased significantly during the period, from 25% to 35%. While nearly a quarter of households did not own a passenger car in 1990, this applies to less than 20% of households now.

The 10-point increase in the proportion of households with two or more vehicles has resulted in a decrease in the number of occupants per passenger car (from 1.78 in 1990 to 1.58 in 2014) because household members are distributed across their vehicles. The decrease in the number of occupants per car is also due to the gradual decline in the average size of households.

Disparities exist, however, depending on the population density of the region. The share of households with two or more cars is smaller in the most populous urban units which often have a well-developed public transport network, while the share is higher and tending to increase in sparsely populated areas.

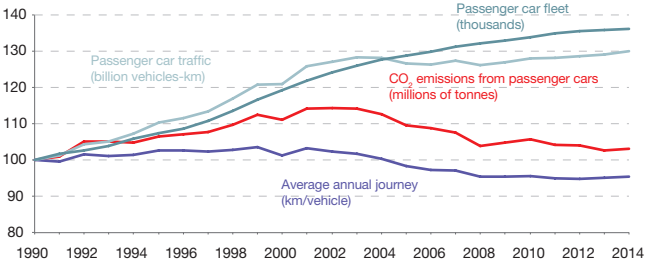
To find out more

• *(in French) Vingt-cinq années de transport intérieur de voyageurs,* CGDD/SOeS*, Études & documents,* No. 148, May 2016, 48 p.
• *(in French) L'utilisation de l'automobile par les ménages dans les territoires peu denses : analyse croisée par les enquêtes sur la mobilité et le recensement de la population,* Insee*, Économie et statistique,* No. 483-484-485, 2016

CO_2 emissions related to passenger car traffic

CHANGE IN THE FLEET, IN TRAFFIC AND IN THE AVERAGE ANNUAL JOURNEY OF PASSENGER CARS AND THEIR CO_2 EMISSIONS

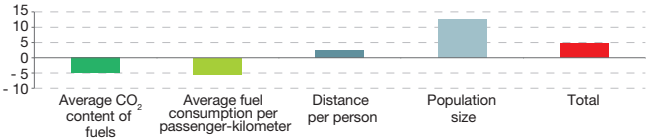
On an index basis where 1990 = 100



Scope: mainland France.
Sources: *SDES (CCTN report); Citepa (Secten). Data collated by: SDES, 2016*

FACTORS RELATED TO THE CHANGE IN CO_2 EMISSIONS BY PASSENGER CARS BETWEEN 1990 AND 2014

In %



Note: to estimate emissions by passenger cars, Citepa uses the European Environmental Agency methodology based on COPERT software and not the emission limits set by European directives for the approval of vehicles.
Scope: mainland France.
Sources: *SDES (CCTN report); Citepa (Namea); Insee (RP). Statistical Processing: SDES, 2017*

Analysis

Passenger cars emit more than half of transport-related CO_2 emissions. After increasing in the 1990s (+11% between 1990 and 2000), passenger car emissions have been declining since 2003 (-10% between 2003 and 2014), without, however, returning to 1990 levels (64.8 million tonnes). In 2014, they rose again (+0.5% compared to 2013), reaching 66.8 million tonnes. Their pace is in line with that of the average annual passenger car journey, in gradual decline since 2000. In 2014, this reached 12,753 km per vehicle.

Conversely, while the annual distance per vehicle is decreasing, the circulation of passenger cars has increased with the fleet, with 405 billion vehicle-kilometres in 2014 covered by 31.7 million vehicles registered in France. Since 2000, the passenger car fleet has grown more slowly than the number of households (+14% vs. +16% between 2000 and 2014), a departure from the dynamic of the 1990s when the trend was the reverse.

The increase in population size (+13%) combined with the increase in distance travelled per person (+2%) explains this increase in CO_2 emissions. *In contrast*, average fuel consumption expressed in passenger-kilometres and the average CO_2 content of fuel, down during the period observed (-5% each), have helped to limit the rise in these emissions.

In order to respond to climate issues, France has committed, with the law on Energy Transition for Green Growth, to reduce greenhouse gas emissions by 40% between 1990 and 2030 and to reduce its emissions by 75% between 1990 and 2050. Within the framework of the National Low Carbon Strategy, it also aims to reduce emissions in the transport sector by 29% over the period from 2015 to 2028.

To find out more

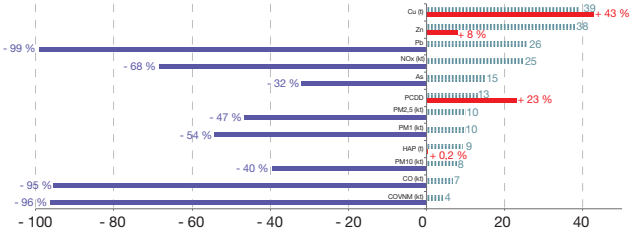
- *Les comptes des transports en 2015,* CGDD/SOeS*, Datalab,* August 2016*,* 184 p.
- Citepa (Centre interprofessionnel technique d'études de la pollution atmosphérique/Interprofessional technical centre for atmospheric pollution studies)

Activities > Emission Inventories > Secten

Pollutant emissions related to passenger car traffic

CHANGE IN EMISSIONS OF ATMOSPHERIC POLLUTANTS BY PASSENGER VEHICLES (PV) BETWEEN 1990 AND 2014 AND CONTRIBUTION TO NATIONAL EMISSIONS IN 2014

In %



Change in pollutant emissions by passenger cars 1990-2014

Share held by passenger car emissions of total national emissions in 2014

Reader's note: NO_x emissions by passenger cars decreased by 68% between 1990 and 2014. In 2014, they represented 25% of national NO_x emissions.
Scope: mainland France.
Source: *Citepa, Secten format, updated April 2016. Statistical Processing: SDES*

Abbreviations

- As: arsenic
- CO: carbon monoxide
- NMVOC: non-methane volatile organic compounds
- Cu: copper
- PAHs: polycyclic aromatic hydrocarbons
- NO_x: nitrogen oxide
- Pb: lead
- PCDD: dioxins and furans
- PM_1, $PM_{2.5}$, PM_{10}: particulate matter with diameters below 1, 2.5 and 10 microns
- Zn: zinc

Analysis

Car traffic is a major source of air pollution. Pollutants come from the constituents and the combustion of fuel, and from the abrasion of vehicles (tyres, brake pads) and the road. They represent a major environmental and health issue.

In 2014, passenger cars accounted for almost 40% of national emissions of copper and zinc, and almost one-quarter of national emissions of lead and nitrogen oxides (NO_x).

National copper emissions increased (+43%) between 1990 and 2014, due largely to brake pad wear and, to a lesser extent, to the combustion of fuels and engine oil, as well as road abrasion and tyre wear. PCDD emissions (+23%), mainly caused by traffic growth and the high penetration of diesel vehicles into the fleet, and zinc emissions (+8%) also rose but have declined in recent years. Other air pollutants (PAHs) are stagnating or in sharp decline.

The most significant declines relate to the use of lead (due to the ban of tetraethyl lead in petrol since 1 January 2000), NMVOCs (the cause of the ozone concentration in the troposphere), of which 4% of national emissions were generated by passenger cars in 2014, and carbon monoxide. NO_x emissions have also been significantly reduced, thanks to the renewal of the fleet and the gradual introduction of catalytic converters, followed by a reduction in particulate matter with a diameter of less than 1 µm (PM_1), 2.5 µm ($PM_{2.5}$) and 10 µm (PM_{10}) and arsenic.

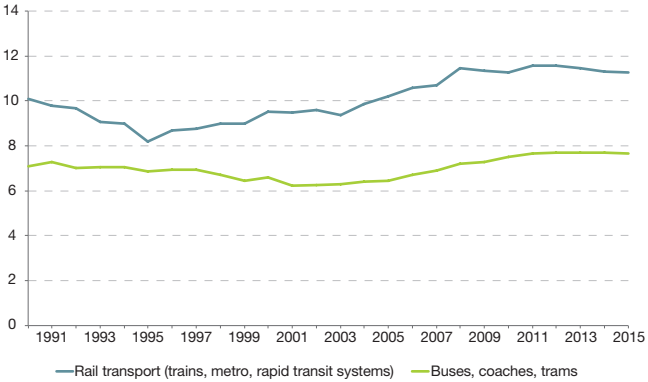
To find out more

- Citepa(Centre interprofessionnel technique d'étude de la pollution atmosphérique / Interprofessional technical centre for atmospheric pollution studies)
Activities > Emission Inventories > Secten
- http://www.statistiques.developpement-durable.gouv.fr
(in French) L'Essentiel sur > Environnement > Milieux > Air > Pollution de l'air extérieur
- *Bilan de la qualité de l'air en France en 2015*, CGDD/SOeS, *Datalab*, October 2016, 28 p.
- *Les comptes des transports en 2015*, CGDD/SOeS, *Datalab*, August 2016, 184 p.

Use of public transport

CHANGE IN THE MODAL SHARE OF DOMESTIC PUBLIC LAND TRANSPORT

In % of passenger-kilometres



Scope: mainland France.
Source: *SDES (CCTN report), 2016*

Analysis

Between 1990 and 2015, the modal share of public land transport has changed little, moving from 17% to 19%. Rail transport (11%) is the main mode of transport used by travellers, followed by public road transport (8%). This predominance is primarily linked to high-speed trains which account for more than half of rail transport, and then to regional trains (trains covered by agreements with regional councils and the Île-de-France network), which account for more than a quarter.

The main public transport by road is French (34%) and foreign (22%) coaches, followed by inter-urban transport (15%, excluding Île-de-France).

In 2015, public land transport accounted for almost 176 billion passenger-kilometres, an increase of almost 40% compared to 1990. This increase concerns both public road transport (+36%) and rail transport (+41%).

For public road transport, the increase in urban travel (+70% excluding Île-de-France) and interurban travel (+74% excluding Île-de-France) helps explain this rise.

For rail transport, the development of high-speed trains (+262%), metros (+222% excluding Île-de-France) and regional trains (+123%) has contributed to this trend.

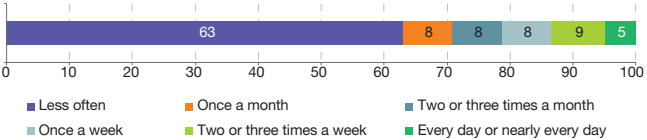
To find out more

• *(in French) Les comptes des transports en 2015,* CGDD/SOeS, Datalab, August 2016, 184 p.
• *(in French) Vingt-cinq années de transport intérieur de voyageurs*, CGDD/SOeS, *Études & documents,* No. 148, May 2016, 48 p.
• *(in French) Chiffres clés des transports - édition 2017*, CGDD/SOeS, *Datalab*, February 2017, 72 p.

French households and ... cycling

HOW OFTEN THE FRENCH TRAVEL BY BIKE

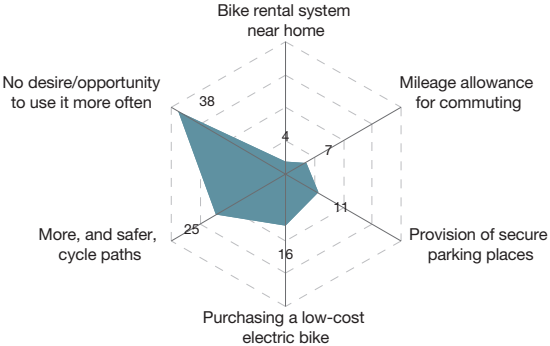
In %



Note: the question asked was 'How often do you travel by bike?'
Scope: All of France.
Source: *SDES (survey of household environmental practices, March 2016)*

MOTIVATION FOR THE FRENCH TO CYCLE MORE OFTEN

In %



Note: the question asked was 'You travel by bike less than once a week - what would encourage you to use it more often?' Combination of the first and second choices.
Scope: All of France.
Source: *SDES (survey of household environmental practices, March 2016)*

Analysis

Environmentally friendly and beneficial for health, cycling is an alternative mode of transport to cars and public transport, especially in the city. The development of bike services (availability of self-service bikes, long-term rentals, parking availability, self-repair workshops, bike-schools, and so on) aims to encourage and support households to favour this mode of travel.

According to the 2016 survey on household environmental practices carried out by SDES, more than 60% of French people say they use their bike less than once a month. Of the remaining 40%, 13% say they use this mode of transport more than once a week. However, behaviours vary depending on the characteristics of the people. A regular cyclist is more likely to be a man, who lives alone, in a town of 20,000 to 100,000 inhabitants, and is highly aware of environmental issues.

In total, almost 40% of respondents say they are not willing or able to use their bike more often. For the others, the presence of more and safer bike lanes (25%) would be the first motivator to encourage them to use their bikes more often, ahead of buying a low-cost electric bicycle (16%) and the provision of secure parking (11%). In a more minor way, a mileage allowance for commuting (7%) and the existence of a bike rental system near their home (4%) are also among the motivational criteria mentioned by respondents.

To find out more

• *(in French) Les Français et la mobilité durable : quelle place pour les déplacements alternatifs à la voiture individuelle en 2016 ?,* CGDD/SOeS*, Datalab essentiel,* September 2016, 4 p.

Part 4

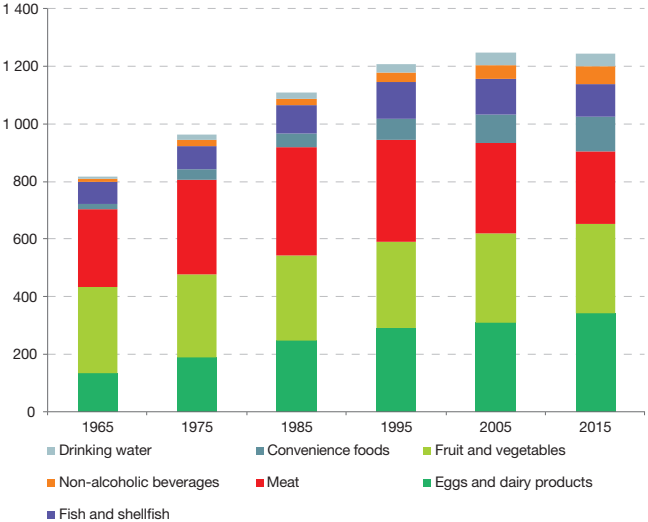
What kind of food practices?

— Food accounted for 16% of final consumption expenditure by households in 2015 and accounted for 16% of the carbon footprint of households. However, the pressures on the environment from food differ according to the production methods, the types of food consumed, as well as the attention paid to the issue of food waste.

Household food expenditure

CHANGE IN HOUSEHOLD FOOD EXPENDITURE, BY PRODUCT TYPE

in €/per capita



Note: actual household consumption expenditure by product in chain-linked volume at previous year's prices; 2010 amount per capita in Euros.
Scope: All of France.
Source: *Insee (national accounts - base 2010). Statistical Processing: SDES*

Analysis

In fifty years, the eating habits of households have changed profoundly. In 2015, households first targeted their expenditure on eggs and dairy products, as well as fruits and vegetables (more than €300 per capita per year for each of these categories, that is, almost half of the food expenditure observed). Meat represents only 20% of the expenditure observed (that is, nearly €250 per capita per year), compared to a third in 1965. After remaining stable for a long time, its share in spending has been declining since the 1980s.

The most notable change is the purchase of convenience food which increased sixfold over the period observed and represented an average budget of €119 per capita per year in 2015. With high volumes of packaging and high energy consumption required for their preparation and conservation, they face strong environmental pressure.

Expenditure on soft drinks and bottled water similarly increased (up six- and fourfold respectively). The consumption of packaged drinks leads to increased pressures on the environment. The production and transportation of bottles results in heavy consumption of hydrocarbons and high greenhouse gas emissions. The packaging, mostly made of plastic, also generates household waste. When this is not recycled, incineration results in pollutant emissions that must be treated.

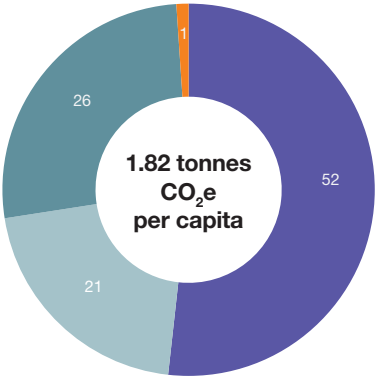
To find out more

- *Insee (Institut national de la statistique et des études économiques/French National Institute of Statistics and Economic Studies)*
- *Topics > Living standards - Society > Household consumption and equipment*
- *(in French) Cinquante ans de consommation alimentaire : une croissance modérée, mais de profonds changements, Insee Première, No. 1568, October 2015*
- *Le repas depuis 45 ans: moins de produits frais, plus de plats préparés, Insee Première, No. 1208, September 2008*

Food's carbon footprint

FOOD'S CARBON FOOTPRINT IN 2012: DISTRIBUTION BY ORIGIN OF EMISSIONS

In %



- Domestic production for domestic final demand
- Imports for intermediate consumption in sector
- Imports for final use
- Direct household emissions

Notes: footprint calculated for the three main greenhouse gases (CO_2, CH_4, N_2O) and for total final demand excluding exports (household consumption, utilities, investments) according to the new 2017 methodology; estimated 2013-2016 data.
Sources: *IEA; Citepa; Eurostat; Insee. Statistical Processing: SDES, 2016*

Analysis

Food represented 16% of the carbon footprint of households in 2012, or 1.82 tonnes CO_2e per capita. Compliance with the greenhouse gas emission reduction targets set by the law on Energy Transition for Green Growth should lead to a total carbon footprint of less than 2 tonnes CO_2e per capita in 2050.

More than half (52%) of the carbon footprint of household food comes from emissions associated with domestic food production (products from the agricultural and agri-food industries).

47% of this footprint comes from emissions related to food imports, of which 21% is associated with the intermediate consumption required for food production (agricultural practices, processing, packaging, transportation, sales). More than a quarter of import-related emissions are for final use (agricultural products, beverages or ready meals) consumed directly by households.

With the household food footprint resulting mainly from the production of foodstuffs, at the agricultural and agri-food industry stages, the use of household fuel for cooking is only a residual share of the carbon footprint associated with food (1%).

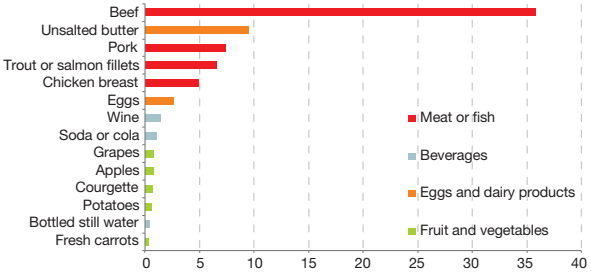
To find out more

- www.statistiques.developpement-durable.gouv.fr
(in French) L'essentiel sur > Énergie et climat > L'empreinte carbone
- *L'empreinte carbone de la consommation des Français : évolution de 1990 à 2007*, CGDD/SOeS, *Le point sur*, No 114, March 2012, 4 p.

Food and greenhouse gas emissions

GHG EMISSIONS ASSOCIATED WITH FOOD IN 2016, BY TYPE OF INGREDIENT CONSUMED

In kg CO_2e by kg of ingredient ingested

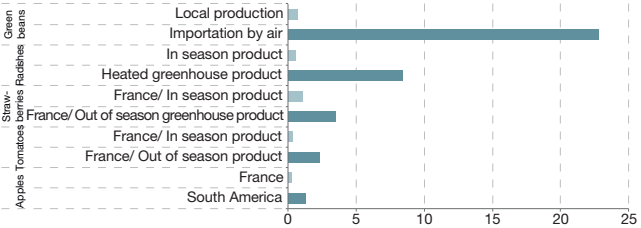


Note: national or conventional average used for each type of product, all production methods combined.

Source: *Ademe (FoodGES, June 2016). Statistical Processing: SDES, 2016*

GHG EMISSIONS ASSOCIATED WITH SOME FRUITS AND VEGETABLES, IN 2016, BY PRODUCTION METHOD

In kg CO_2e by kg of ingredient ingested



Source: *Ademe (FoodGES, June 2016). Statistical Processing: SDES, 2016*

Analysis

Food products generate greenhouse gases throughout their development, from production to consumption. The size of these emissions varies according to the type of food consumed: in general, meat and dairy products generate more greenhouse gases than fruit and vegetables.

There are also some disparities within each range of products. For meat, according to Ademe and its FoodGES database, a portion of beef (35.8 kg CO_2e/kg on average) emits more GHGs than a portion of chicken (4.9 kg CO_2e/kg). Among the drinks studied, wine (1.4 kg CO_2e/kg) and sodas (1.1 kg CO_2e/kg) are larger emitters than bottled still water.

Other factors are involved, such as the manufacturing process, the mode of transportation and the distance travelled to the consumer. Favouring seasonal foods grown locally using sustainable farming methods, such as organic farming, can sometimes significantly reduce environmental pressures.

For example, an off-season tomato produces on average seven times more greenhouse gases than a tomato grown in season. For green beans, these emissions are multiplied by 32 if they are imported by plane, compared to local production.

To find out more

• Ademe (French Environment and Energy Management Agency/Agence de l'environnement et de la maîtrise de l'énergie)
(in French) Accueil > Particuliers et éco-citoyens > Mes achats > Alimentation

Consumption of organic products

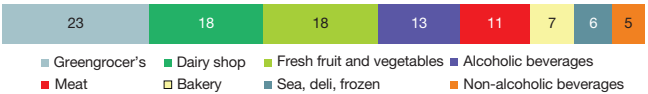
CHANGE IN CONSUMPTION OF ORGANIC PRODUCTS, BY DISTRIBUTION CHANNEL

In millions of euros

Scope: mainland France.
Source: *Agence Bio/AND-I 2016*

DISTRIBUTION OF HOUSEHOLD ORGANIC PURCHASES FOR CONSUMPTION AT HOME IN 2015 BY CATEGORY OF FOOD

In %



Scope: mainland France
Source: *Agence Bio/AND-I 2016*

Analysis

Organic production, which covered 5.7% of the agricultural area used by farms in France in 2016, is a sustainable management system that notably preserves natural resources and biodiversity. Organic production methods are based on the non-use of synthetic chemicals, recycling organic matter, crop rotation and respect for animal welfare.

In 2015, the turnover of the organic sector for consumption by households reached €5.5 billion, increased by a factor of 2.7 compared to 2007. The average household budget devoted to the consumption of organic food is estimated at €86 per capita per year.

For consumption at home, households mainly buy their products from supermarkets (45%) and specialist organic stores (36%). Producer-to-consumer direct sales (14%) saw the strongest growth between 2010 and 2015 with a turnover that doubled.

By value, three-quarters of the organic products consumed in the territory come from French agriculture, thus limiting import-related pressures.

Grocery products make up the largest share of organic products consumed (23%, or €20 per capita per year), followed by fresh fruit and vegetables, dairy products, including milk, milk products and eggs (18% each), then wine and other alcoholic beverages (13%), and meat (11%).

To find out more

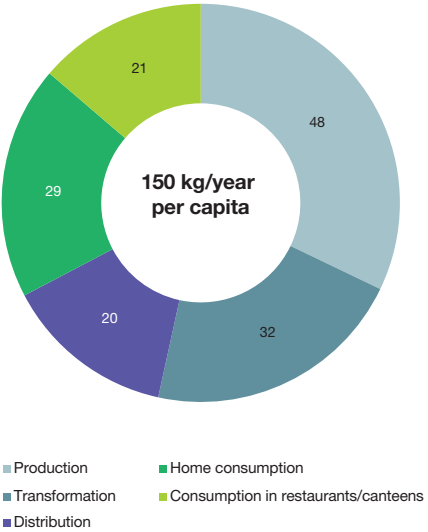
- Agence Bio (French Agency for the Development and Promotion of Organic Agriculture)
- Alim'Agri (Ministry of Agriculture and Food)

(in French) Accueil > Agriculture biologique

Food Waste

FOOD LOSS AND WASTE IN FRANCE

In kg/year per capita



Source: *(in French) Ademe (Pertes et gaspillages alimentaires : l'état des lieux et leur gestion par étapes de la chaîne alimentaire, 2016)*

Analysis

In France, Ademe found that the total amount of food loss and wastage from field to plate was 10 million tonnes, or 150 kg per capita, per year. These lost or wasted products would generate 15 million tonnes of CO_2 equivalent per year, or 5% of annual national emissions. Households account for one third of food waste, or 50 kg per capita per year, including home catering and the food service sector. Waste is four times greater in the food service sector (restaurants and canteens) than at home.

In order to combat waste at all stages of the food chain, France drew up the National Pact to Combat Food Waste in 2013, setting an objective to cut food waste by half by 2025. To achieve this goal, law no. 2016-138 to combat food waste was passed, establishing a hierarchy of actions to be put in place by all operators in the food chain:

1 – prevention of food waste;
2 – use of unsold food that remains fit for human consumption, either via donation or reprocessing;
3 – repurposing food for use in animal feed;
4 – using food for agricultural composting or energy recovery, particularly via anaerobic digestion.

To find out more

• Service de la donnée et des études statistiques (Data and Statistical Studies Department) (for example SOeS)
(in French) L'essentiel sur > Le gaspillage alimentaire
• Ministère de l'Agriculture et de l'Alimentation /Ministry of Agriculture and Food
(in French) Accueil > Alimentation > Anti Gaspi
• *Global Food Losses and Food Waste - Extent, Causes and Prevention*, FAO, Rome, 2012, 33 p.
• *(in French) Pertes et gaspillages alimentaires : l'état des lieux et leur gestion par étapes de la chaîne alimentaire*, Ademe, May 2016, 165 p.

Part 5

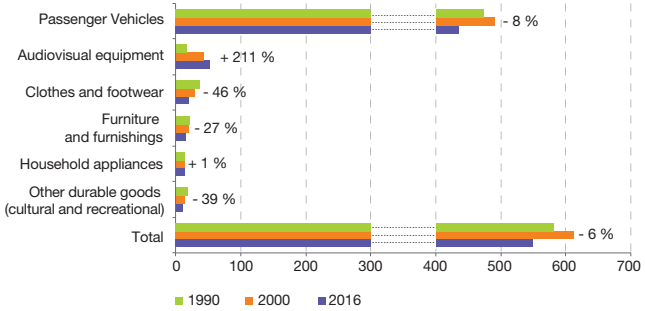
End of life products: waste or re-use?

- How household choices on the fate of used products influence environmental pressures. Repair and donation for reuse can extend the life of items and thus limit the production of waste. Extending the duration of use and recycling are two pillars of the circular economy.

Maintenance and repair of products

CHANGE IN HOUSEHOLD SPENDING ON PRODUCT REPAIR AND MAINTENANCE, BY CATEGORY

in € per capita



Notes: change from 1990 to 2016 in %; actual household consumption by function in chain-linked volume at previous year's prices; the 'clothing, footwear' category also includes cleaning and rental expenditure; house maintenance and repair expenditure not included; the 'audiovisual materials' category includes photographic and information processing equipment.
Scope: All of France.
Source: *Insee (National accounts, base 2010), Insee (population estimates from 1990, 2000, 2016). Statistical Processing: SDES, 2016*

Analysis

In 2016, households spent €36.7 bn on the maintenance and repair of their possessions, or €551 per capita (-6% compared to 1990). Having increased in the 1990s (+5% between 1990 and 2000), per capita spending began to decrease in the early 2000s (-10% between 2000 and 2016).

Spending of this type is largely directed towards the repair and maintenance of passenger vehicles - a category that still represents almost 80% of recorded spending in 2016 (€436 per capita annually), despite a downward trend of around 11% over the period in question. Maintenance and repair of audiovisual equipment takes second place (€53 per capita annually, or around 10% of total expenditure on repairs), and is the only category in which spending has continued to increase since the beginning of the 1990s. Here, the amount spent per inhabitant has tripled, due largely to the surge in information and communications technology between 1990 and 2000.

Spending on other product categories is falling. The most significant reduction is in the maintenance and repair of clothes and shoes (€20 per capita in 2016, or a drop of 30% between 1990 and 2016). The amount spent on the repair of household appliances (€14 per capita in 2016) has stagnated (+1% over the period in question). The lower cost of certain items, combined with higher repair costs, the lack of availability of spare parts and even planned obsolescence (the fashion factor) of certain electrical or electronic devices, have led households to favour replacement over repair.

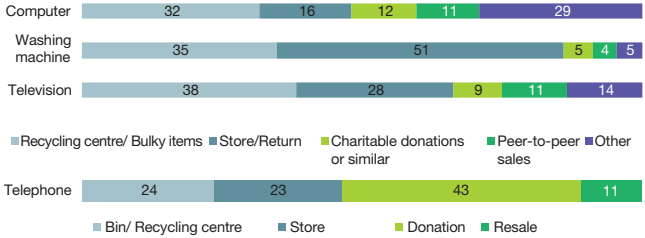
To find out more

- *(in French) 10 indicateurs clés pour le suivi de l'économie circulaire - édition 2017,* CGDD/SOeS*, Datalab,* March 2017, 36 p.
- *(in French) Perceptions et pratiques des Français en matière de réemploi des produits – Édition 2014*, Ademe, July 2014, 83 p.
- Insee (French National Institute of Statistics and Economic Studies)

French households and ... the second life of goods

DESTINATION OF EQUIPMENT AFTER REPLACEMENT IN 2016

In %



Notes: the question asked was 'What did you do with your old (...) washing machine, TV, computer/ tablet, mobile phone?'; P2P: peer-to-peer.
Scope: All of France.
Source: *SDES (survey of household environmental practices, March 2016)*

To find out more

•*(in French) 10 indicateurs clés pour le suivi de l'économie circulaire - édition 2017,* CGDD/SOeS, *Datalab,* March 2017, 36 p.

Analysis

Some electrical or electronic equipment (*see Household Waste of Electrical and Electronic Equipment Sheet*) still works even when replaced by the owner, and does not necessarily need to be thrown away. Re-employing or reusing these products provides a new use for them, and thus extends their life, delaying the production of waste.

The survey of household environmental practices, carried out by SDES in 2016, highlights behavioural differences according to the type of equipment replaced.

More than half of washing machines that have been replaced are returned to the store, while a third of them are thrown away. Rate of return to store increases with the urban nature of the respondents' place of residence. It goes from 40% in rural areas to nearly 70% in Paris.

38% of televisions are destined for established waste collection systems (recycling centre, bulky items). Return to store is their second destination (28%), followed to a lesser extent by resale (11%) and donation (9%). Here again, geographical characteristics influence behaviour, with use of the recycling centre or the collection of bulky items increasing with the rural character of the respondents' place of residence (nearly 50% in rural areas compared to less than 30% in the Paris area).

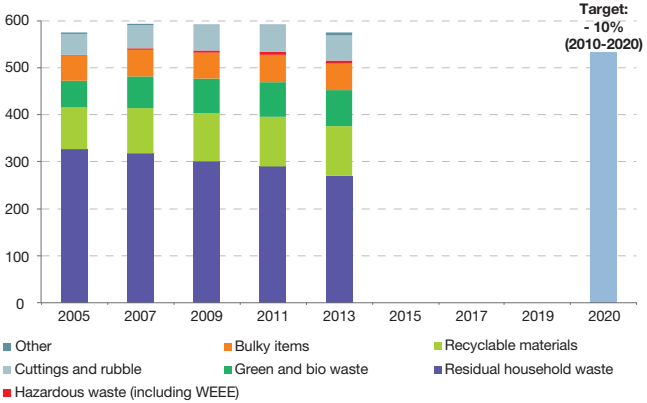
Once refurbished, one third of computers are discarded, while 23% of them are donated or resold. However, behaviour varies between generations, ranging from 20% resale by 25-34 year olds to 6% among 50-64 year olds. Donations are more often made by the over 65s (16% of computers are replaced by the latter, compared to 8% among 25-34 year olds). Almost 30% of computers are not discarded, donated or sold, suggesting that some of them remain stored at home.

Unlike other objects, old phones are mainly donated (43%) rather than being thrown away or returned to store (less than a quarter of replaced phones). Donation is particularly favoured by people living in urban areas, graduates of higher education, and respondents aged 50 and over.

Production of household and similar waste

CHANGE IN THE PRODUCTION OF HOUSEHOLD AND SIMILAR WASTE PER CAPITA

In kg/year per capita



Scope: All of France including overseas departments.
Source: *Ademe (Collecte survey). Statistical Processing: SDES*

Definition

Household and similar waste is waste from households and economic actors that follows the same route: household waste collected as a mixed waste, separate collection from door-to-door or as a voluntary contribution (at recycling centres, for example).

Analysis

In 2013, each inhabitant produced an average of 571 kg of household and similar waste (HSW). This production decreased slightly between 2005 and 2013, (-1%) even though it has continued to decline at a more sustained pace since 2009 (-3% between 2009 and 2013).

The production of residual household waste, which accounts for almost half of the HSW produced, is decreasing (-17% over the period in question), while the other categories are increasing. The most significant increase is for so-called hazardous waste, which includes waste from electrical and electronic equipment (WEEE). Although it accounts for a small share of HSW (1%), its production quadrupled between 2005 and 2013.

The volume of waste generated by door-to-door collection, which accounted for almost half of the HSW in 2013, dropped significantly (-18% between 2005 and 2013), while selective collection or waste disposal increased at the same time (+ 22% over the same period), notably because of the increase in the volume of waste destined for recycling.

The law of 17 August 2015 (law on Energy Transition for Green Growth) set the target of a 10% reduction of household and similar waste between 2010 and 2020.

To find out more

• Service de la donnée et des études statistiques (Data and Statistical Studies Department)(for example SOeS)
(in French) L'Essentiel sur > Ressources et déchets > Déchets > Déchets ménagers et assimilés
• Ademe (Agence de l'environnement et de la maîtrise de l'énergie/French Environment and Energy Management Agency)
(in French) Accueil > Particuliers et éco-citoyens > Mes déchets
• Ministère de la Transition écologique et solidaire /Ministry for an Ecological and Solidary Transition
(in French) Rubrique Prévention des risques > Gestion des déchets

Household waste from electrical and electronic equipment

DISTRIBUTION OF THE QUANTITIES OF HOUSEHOLD WEEE COLLECTED IN 2015, BY CATEGORY OF EQUIPMENT

In %

■ Large appliances (excluding refrigeration) ■ Large refrigeration appliances ■ Lamps
■ Small mixed appliances ■ Screens

Note: photovoltaic panels not included (< 1% of items collected).
Scope: All of France including overseas departments.
Source: *Ademe (in French: Rapport annuel du registre des DEEE, October 2016)*

DISTRIBUTION OF THE QUANTITIES OF HOUSEHOLD WEEE PROCESSED IN 2015, BY PROCESSING METHOD

In %

■ Material recycling ■ Disposal ■ Energy recovery ■ Re-employment or reuse

Scope: All of France including overseas departments.
Source: *Ademe (in French: Rapport annuel du registre des DEEE, October 2016)*

Definition

Electrical and Electronic Equipment (EEE) is equipment that operates by means of an electric current or an electromagnetic field, or equipment for producing, transferring or measuring these currents and fields, designed to be used at a voltage not exceeding 1,000 volts in alternating current or 1,500 volts in direct current.
Waste electrical and electronic equipment (WEEE) includes household waste and waste of commercial, industrial, institutional and other origin which, because of its nature and quantity, is similar to household waste.

Analysis

577,927 tonnes of household electrical and electronic waste (WEEE) were collected in 2015, or 9 kg per capita per year. This represents a 263% increase in the amount of WEEE collected compared to 2007. Since 2013, France has achieved the target in Directive 2002/96/EC of 27 January 2003 on waste from electrical and electronic equipment, to collect at least 4 kg of household WEEE per capita per year. Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on Waste from Electrical and Electronic Equipment (WEEE) now sets the goal of raising WEEE collection to 14 kg per capita per year by 2019.

More than 40% of WEEE is made up of large appliances excluding refrigeration (washing machines, dishwashers, stoves, and so on). More than a quarter of this waste comes from mixed small appliances (small domestic appliances, tools, toys, telephony, hi-fi, and so on). This is followed by large household refrigeration appliances (fridges, freezers, and so on) and screens (televisions, computers).

Of the 575,000 tonnes processed, most is sent for recycling (80%), 11% is disposed of and 8% used for energy recovery. Only 2%, or around 8,800 tonnes, of treated WEEE is for re-employment or reuse.

The quantities collected remain low compared to the tonnages placed on the market. In 2015, 616 million household appliances (+37% compared to 2006), or about 9.2 appliances per capita, were placed on the market. This corresponds to a volume of 1.4 million tonnes (+7% compared to 2006). The significant growth in the sale of electrical and electronic equipment observed over the last two decades points to an inevitable increase in WEEE deposits in the years to come.

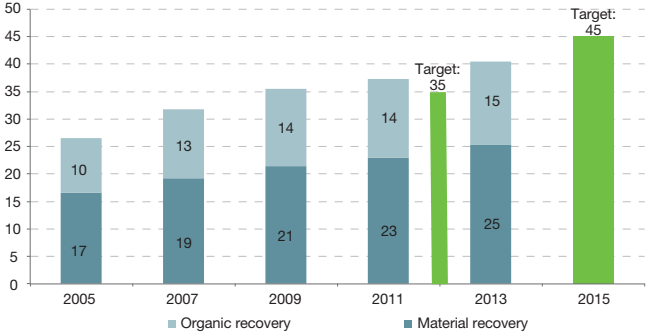
To find out more

• Service de la donnée et des études statistiques/Data and Statistical Studies Department (for example SOeS)
(in French) L'essentiel sur > Déchets
• *Équipements électriques et électroniques,* Ademe, *Faits et chiffres,* December 2016

Recycling of household and similar waste

CHANGE IN THE RECYCLING RATE OF HOUSEHOLD AND SIMILAR WASTE, BY RECOVERY METHOD

In %



Scope: All of France including overseas departments.
Source: *Ademe (Collecte survey)*

Definition

Recycling includes material recovery (sorting, dismounting, dismantling, regeneration) and organic recovery (composting, anaerobic digestion, spreading).
The distribution of the destination of the waste collected only takes into account the first destination of the waste. Refuse from sorting, composting or incineration slag are not part of this calculation.
Thus, 'material recovery' includes all waste destined for waste sorting facilities, regardless of the quantities of sorting refuse generated by these facilities.

Analysis

Between 2005 and 2013, the volume of household and similar waste, including earth and rubble, destined for recycling multiplied by 1.6 and it accounted for 40% of waste processed in 2013. Material recovery and organic recovery progressed at the same rate.

By 2013, a quarter of household and similar waste was destined for recycling and 15% for composting. Non-recycled waste is mainly destined for incineration with energy recovery (30%), which has maintained a stable share in the treatment of this waste for ten years, or storage (22%), whose share is decreasing (30% in 2005).

The law of 12 July 2010 (Grenelle II) set two objectives: to increase the recycling of household and similar waste to 35% in 2012 and to 45% in 2015. The first target of 35% recycling in 2012 was reached.

The law of 17 August 2015 on the Energy Transition for Green Growth has the objective of increasing the amount of waste being reprocessed into material, particularly organic matter, by directing 55% in 2020 and then 65% in 2025 of non-hazardous, non-inert waste towards recycling streams.

To find out more

• Service de la donnée et des études statistiques/Data and Statistical Studies Department (for example SOeS)
(in French) L'Essentiel sur > Ressources et déchets > Déchets > Déchets ménagers et assimilés
• Ademe(Agence de l'environnement et de la maîtrise de l'énergie/French Environment and Energy Management Agency)
(in French) Accueil > Particuliers et éco-citoyens > Mes déchets
• Ministère de la Transition écologique et solidaire/Ministry for an Ecological and Solidary Transition
(in French) Prévention des risques > Gestion des déchets

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Households put pressure on the environment as a result of their daily activities and consumption habits (emission of greenhouse gases, air pollutants, waste production, and so on).

These pressures, which appear to be negligible on an individual level, collectively have a profound impact on the environment and on natural resources.

This publication presents a selection of indicators on environmental pressures and impacts associated with household practices and lifestyles.

Households and the Environment

Key figures
2017 Edition

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