Economic instruments

Fuel taxes are higher in France than in North America but lower than in some other European countries, including Germany and the UK. The same applies to the price difference between diesel and petrol (Figure 2.3). A plan was introduced in 1999 to eliminate the price difference by 2005 by increasing the tax on diesel by EUR 0.011 per litre each year for seven years, but the increase has not been applied every year; high oil prices in 2000-01 and protests by truckers against fuel tax increases led the government to temporarily suspend the policy. The tax on diesel was raised by EUR 0.03 in 2004, but diesel is still significantly cheaper than petrol.

Moreover, an agreement between truckers and the ministry in charge of transport in 2000 exempted goods transport from any increase in diesel prices and granted an additional subsidy of EUR 0.032/litre in 2000 and EUR 0.017 in 2001, so the increase in 2004 will probably not cause any appreciable decline in diesel use. The use of economic instruments to better internalise the external environmental costs of transport should focus on *where vehicles are used* (e.g. through tolls and parking charges) and on their *environmental characteristics* (Chapter 7). Emission reduction technology, including particulate filters, can also be an effective means of reducing the health and environmental effects of particulates emitted by diesel engines (Box 2.1).

France has cut taxes on liquefied natural gas and granted partial refunds of the fuel tax on natural gas and biofuel to encourage the use of *alternative fuels*. France is now the EU's biggest producer of biodiesel, with 47% of total EU output. The French fleet of 35 million cars and vans includes 210 000 run on liquefied petroleum gas (LPG), 4 500 fuelled by natural gas, 5 000 electric and about 200 hybrid vehicles. In addition the country has some 1 500 electric mopeds and about 900 buses that run on natural gas. Tax credits are granted for the purchase of *electric vehicles*, but even so their high price and reduced autonomy kept France from achieving its target of having electric vehicles represent 5% of new registrations (100 000 vehicles) by 2000. A reform in 1998 led to a higher *axle tax on commercial vehicles*, mainly by abolishing various reductions (e.g. involving zoning, transport for own account and toll refunds) that would have prevented France from complying with EU minimum rates. The reform is consistent with recommendations in the 1997 OECD review. Taxation on heavy trucks in France is still among the lightest in the EU. The 2004 National Health and Environment Plan envisages an increase in the axle tax. Vehicles using mixed road-rail systems are eligible for a 75% flat-rate reduction in the axle tax. *Motorway tolls* continue to play an important role in financing motorway infrastructure and channelling goods and passengers to various types of infrastructure (toll roads, free roads, rail).

Until 2001, a *road tax* was payable on vehicles not liable to the axle tax. Since then most vehicles under 3.5 tonnes have been exempt if owned by individuals or legal entities possessing up to three vehicles. The exemption is not environmentally beneficial. In June 2004, the Ministry of the Environment and Sustainable Development (MEDD) proposed a *merit rating (bonus-malus) system for vehicle purchases* to partly offset the road tax exemption. The system would be based on the amount of CO_2 vehicles produce. Buyers of vehicles at the highest emission level would have to pay between EUR 400 and EUR 3 200. Those buying the lowest-emission vehicles would be entitled to a premium (negative tax) of up to EUR 700. This measure could usefully supplement the Climate Plan in the transport sector, but could also affect vehicle sales in France and other EU countries in the absence of EU-wide harmonisation.

Box 3.1 **Financial stakes in water supply and waste water treatment investment**

IFEN reported that pollution abatement and control expenditure related to waste water treatment totalled EUR 11.2 billion in 2002 and that the sum for drinking water treatment and supply was EUR 7.3 billion. Investment expenditure accounted for about one-third of the combined total and operating expenditure for two-thirds. The situation in 2002 continued trends observed since 1999 with a moderate increase in current spending and a *sharp rise in capital spending*.

As regards investment, *three major issues* can be identified for the present and near future: improving the quality of water supply, continuing the effort to improve waste water treatment and renovating facilities and networks.

Work on the system is needed if *water supply quality* is to comply with the strict drinking water standards of the 1998 EU directive. To meet the lead concentration limit of 10 µg per litre necessitates work by water companies that will cost around EUR 4.5 billion (of which EUR 1 billion has already been spent), while replacing mains in the private part of the system will cost about EUR 7.6 billion. The total cost of compliance is estimated at EUR 11.3 billion over the period to 2013.

More also needs to be done to ensure that *sewerage* in settlements of more than 2 000 population-equivalent complies with the Urban Waste Water Directive. The work remaining, estimated at EUR 9.2 billion, is well behind schedule for the 2005 deadline.

Given that the existing physical assets of water and waste water companies are worth an estimated EUR 200 billion, *renewal of existing facilities and networks* is also a major issue. EUR 1.5 billion a year is needed for work on existing water supply infrastructure and EUR 0.8-1.5 billion a year for waste water treatment systems.

6. Financing for Nature Conservation

Estimates by the Environmental Accounting and Economics Commission in 2004 indicate that *national expenditure on biodiversity and landscapes* amounted to EUR 908 million in 2002 (or 3.2% of total environmental protection expenditure), 7.6% more than in 2001. Of this, EUR 473 million was government expenditure and EUR 435 million corporate.

The *contribution of central and subnational government has increased* since the 1997 OECD review. The regions devote 15% of their environmental expenditure to protecting landscapes and biodiversity, an annual average of EUR 35 million, compared with EUR 177 million at département level. Between 1997 and 2003, central government funding of nature and landscape protection rose steadily, not least because of the need to finance the establishment of the Natura 2000 network to the tune of some EUR 18 million per year. The rise levelled off in 2002-03 and *the trend is now downwards*, with an 11% decrease from 2003 to 2004. The budget of the Coastal Conservatory was cut, and although exceptional allocations were made in 2004 and 2005, it is unlikely that at its current funding level the Conservatory will be able to meet the acquisition objectives in its multi-year programme. While substantial resources are now allocated to the management of national parks, the current amounts do not take into account future needs for the national park projects still "under consideration", which may finally come to fruition.

Finally, to meet growing demand, *more resources* should be allocated to *protection of destination sites* in general and to major site operations in particular, especially given that some major site agreements concluded between central government and local authorities have not been followed up with the necessary funding.

6.1 *Funding and local taxes*

A *département tax for sensitive natural areas*, levied on construction of single-family houses, is entirely earmarked for nature conservation, on the principle that urban expansion and infrastructure additions should be offset by action favouring nature. This one-off payment, imposed when a building permit is issued, is equivalent to up to 2% of the construction costs (it is zero in some instances). Revenue from the tax could be doubled, representing additional annual income of around EUR 100 million, by setting a minimum rate of 1% and introducing legislation to make the tax compulsory (currently 29 out of 100 départements do not levy it). The tax could also be extended to major infrastructure projects, such as high-speed train links, high-tension power lines, industrial waste disposal sites, incinerators, quarries and motorways, thus generating considerable funds. Motorway construction is already subject to the 1% landscape requirement, the revenue from which is allocated to landscaping.

General operating grants can give municipalities considerable financial resources. The central government allocates the grants to the départements, which then divide the funds among municipalities, thus providing a form of re-equalisation. The size of municipal allocations is mainly based on criteria related to demographics and economic development. The criteria could be widened to include indicators of municipal nature conservation efforts, such as the extent of protected areas.

Raising the level of fees related to tourism, such as accommodation taxes, parking fees and hunting licence fees, would not generate substantial resources, so it seems more sensible not to jeopardise the essential contribution that tourism makes to local development. For example, the *accommodation tax* instituted in 1910 for hotels and campsites is less than a euro per tourist-night at most, and the revenue is mainly spent on tourism development; only 1-1.5% goes to nature conservation. The rate, and the proportion allocated to nature conservation, could both be increased. But the poor yield from the tax (which many hotel keepers do not declare) and the narrowness of the tax base (only 5% of municipalities levy it), combined with the discontent such a measure would produce, militate against such a move.

As most natural assets belong to private owners, restrictions or easements linked to nature conservation could be rewarded by an *easing of the land tax or estate duties*. For example, there is a plan to exempt property in Natura 2000 areas from the land tax. To minimise nature conservation costs, economies of scale should be emphasised, which implies greater use of various forms of partnership.

6.2 Common Agricultural Policy

Agri-environmental support is low (2-3%) compared with direct subsidies under the CAP, nor does the amount per hectare (EUR 150) compare with direct support (EUR 250-600). In départements where aid for irrigated crops is much higher than that for non-irrigated crops, direct support linked to average yield encourages intensive farming and irrigation. The effects of the July 2003 CAP reform are still unknown, in particular concerning the preservation of agricultural activity in large areas of considerable interest in terms of biodiversity. Making aid conditional on environmental criteria will enable significant improvements to be made, though without accomplishing a complete shift to sustainable agriculture.

Box 5.3 General tax on polluting activities (TGAP)

The TGAP was introduced in 1999 to induce greater consideration of the environmental costs of pollution in economic decision making and to reduce the earmarking of tax revenue. This single tax, overseen by the Ministry of the Economy, Finance and Industry (MINEFI), *combines five previous pollution charges* (on industrial waste, household waste, air pollution, noise pollution and used oil) whose revenue was allocated to the Agency for Environment and Energy Management (ADEME). The tax is proportional to the quantity of pollutant concerned.

The TGAP was extended in 2000 to cover phosphates, pesticides, gravel and classified installations. Its revenue now accrues to FOREC, the Fund to Finance Reform of Social Charges, which finances reductions in employers' social payments, especially those granted in connection with a reduction in the workweek.

Revenue from the TGAP fluctuated over 2001-04 around EUR 500-640 million (it was EUR 510 million in 2004). Other taxes coming under TGAP coverage have been considered, including on nitrates, radioactive and thermal pollution, energy use and infrastructure that increases flood risk, but none have been introduced to date.

Experience with the TGAP illustrates the problems that can arise if an *integrated approach* is not taken. To simplify, environmental campaigners were reluctant to see revenue from the tax used to finance social programmes (they would have preferred it to be used to environmental ends); those for whom social issues were a priority did not wish to find themselves dependent on potentially ephemeral revenue linked to the environment; financial experts did not like the principle of earmarking tax revenue; and users were hostile to the idea of paying any tax at all, even a "green" one.

1.3 Market-based integration

Energy and transport taxes

Existing environmental taxes, such as the *taxes on energy products* (revenue of EUR 25 billion) and *transport taxes* (about EUR 2 billion) (Table 5.2), were generally introduced for fiscal reasons not directly related to environmental externalities, such as CO_2 emissions that contribute to the greenhouse effect (Chapter 7), arising from the sectors' activities. For example, coal is not taxed and thus is indirectly subsidised even though it is the most polluting fuel.

Transport taxes declined by 35% during the review period, mainly because the annual road tax was abolished, while fuel taxes rose by only 5%. These changes, combined with an earlier reduction in VAT on car purchases from 33% to 22%, mean there has been a considerable long-term reduction in *taxation of car ownership* that has not been offset by *taxation of car use*. Fuel taxes are higher in France than in

Table 5.2 **Energy and transport taxes**, 2001

	Type	Beneficiary	Total (EUR million)
Energy	Excise duty on fuels (domestic tax on oil products, TIPP)	Central govt.	23 172
	Domestic consumption tax on natural gas	Central govt.	118
	VAT on oil products	Central govt. (IFP)[a]	195
	Local electricity tax	Municipality (2/3) Département (1/3)	1 235
Transport	Tax on vehicle registration	Region	1 413
	Annual road tax	Département	249
	Axle tax	Central govt.	226

a) Institut français du pétrole.
Source: IFEN.

North America but lower than in some EU countries, including Germany, Italy and the UK. Nevertheless, urban parking fees and motorway tolls help internalise some of the externalities of road transport. Such measures could be reinforced by congestion charges in major cities. It is unfortunate that the government has reduced its financial support for urban public transport, even given the transport charge paid by companies that thus have access to labour in the areas served. The rate of taxes on energy products and transport should be linked to the environmental harm they cause.

The tax differential between *diesel fuel and petrol* has led to a considerable increase in the proportion of diesel vehicles on the road, with some negative environmental effects. In 1998 the government pledged to reduce the difference to the EU average within seven years, but halted the process in 2000 before resuming it in 2004 with a tax increase of EUR 0.03 per litre. Steps to eliminate the difference between diesel and petrol should be continued and extended to heavy goods vehicles, despite the notable improvement in modern diesel vehicles' particulate emissions and the environmental benefit of diesel fuel (the engines emit less CO_2 than petrol engines, but also more NO_x).

A *planned carbon/energy tax* on companies' intermediate energy consumption, in the framework of the TGAP, was apparently intended to have an incentive effect. The tax, whose revenue would have gone to reduce companies' social welfare charges, was also supposed to contribute significantly to the plan to reduce GHG emissions and help achieve French objectives under the Kyoto Protocol. The Constitutional Council rejected the plan in December 2000 as non-egalitarian in conception. The government then sought alternative solutions, such as negotiating voluntary agreements to reduce GHG emissions (Chapter 8).

All aspects of taxation of environmentally harmful energy products need to be reformed, as do various tax exemptions or reductions, especially those granted to road and air carriers. It would be desirable to set up a *green tax commission* under the aegis of the Prime Minister in order to prepare such a reform, as has been done in other OECD countries.

Farm subsidies

Direct farm subsidies (i.e. not counting price support) accounted for some 60% of farm income in France in 1997. Farming was also one of the main beneficiaries of water subsidies, especially for irrigation. Between the 1960s and mid-1990s the amount of irrigated land more than quadrupled under the combined effect of undercharging for water and subsidising irrigation investment. Water users pay considerably less in agriculture than in other sectors; the withdrawal charge for farms is roughly one-fifteenth of what households pay, for instance. Irrigation is also

subsidised (up to 65%), through direct support to develop water supplies and EU aid linked to irrigated land. Moreover, certain cross-subsidies, such as reduced fuel taxes, indirectly benefit agricultural production.

Developments in the World Trade Organization and EU in recent years have led to a *gradual reduction in farm subsidies*. Structural changes to EU subsidy programmes have also shifted support away from production-based payments to aid with beneficial long-term environmental effects. Improved access to markets and lower export subsidies are other positive steps in the right direction.

EU subsidy reform has included *agri-environmental measures*. In France, such transfers, through sustainable farming contracts, totalled some EUR 1.6 billion over 2000-03, or almost one-third of expenditure budgeted in the national rural development plan. Added to that is financial aid in national programmes addressing particular environmental problems. Some of these programmes, such as *PMPOA* and programmes to help farmers switch to more environment-friendly production methods, have resulted in observable environmental improvements. *Territorial farming contracts*, and the sustainable farming contracts that followed them, have encouraged conversion to organic farming.

Nevertheless, some of these support programmes continue to pose problems of environmental-economic integration. Some, by offering financial incentives to reduce pressure on the environment, are *inconsistent with the polluter pays principle*. The PMPOA is an example. In "structural surplus areas" for nitrogen, mostly in Brittany, livestock farms that exceed a certain size and have less than the recommended surface area for nitrogen spreading can qualify through this programme for investment subsidies for manure and slurry storage. The polluter pays principle has been partly restored, however, for the biggest farms (over 90 livestock units), which since 1996 have had to pay the Water Agencies a pollution charge. Like factories, farms able to prove that their practices and investment reduce pollution pay a reduced charge. Other measures *increase the pollution risk*. Direct irrigation subsidies, for instance, lead to increased water consumption and more intensive use of fertiliser and pesticides because of the need for high yields. Such subsidies are now subject to eco-conditionality rules (making aid conditional on environmental improvement). Other measures *increase the pressure on fragile ecosystems*. Natural disadvantage compensation payments, for instance, help keep low-productivity mountain areas as pasture. Here too, elements of eco-conditionality have been introduced: the load factor must be monitored to ensure that the land is not overgrazed. *One programme can also offset the negative environmental effects of another*. Thus, the effects of subsidies to increase irrigation (supplemental payments for irrigated crops) are countered by agri-environmental measures related to irrigation.

The 1997 OECD review recommended that France abolish, as far as possible, *subsidies that are damaging to the environment*. It also recommended cataloguing all environmentally harmful tax measures and amending them appropriately. Some progress has been made in this area with the elimination of coal subsidies and introduction of eco-conditionality in some farm programmes. Recent reforms to the EU's Common Agricultural Policy also move in the direction of decoupling farm subsidies and environmental pressures.

Most decisions concerning subsidy programmes, however, continue to be based on available financial resources rather than expected environmental or economic effects. Hence, it is important to continue reforming *environmentally harmful subsidies*. Measures needed include improving information about such subsidies, improving analysis of their dynamic and long-term effects on the environment and the economy, putting in place adjustment policies and transition measures to gradually introduce the necessary reforms and increasing international co-ordination to minimise effects on competitiveness. More generally, support programmes of all types (economic subsidies with environmental effects, payments with direct environmental objectives, eco-conditionality measures) should be examined from the standpoint of their net impact on environmental effectiveness and economic efficiency.

1.5 Environmental expenditure and competitiveness

Expenditure

Environmental protection expenditure in 2002 totalled *EUR 28.8 billion, or 1.9% of GDP*. The public sector spent 65% of this total, businesses 29% and households 6% (Table 5.3), while in terms of funding sources the public sector accounted for 29%, business for 43% and households for 28%. Water and waste are the biggest items.

Environmental protection expenditure has increased steadily as a proportion of GDP, from 1.73% in 1996 to 1.9% in 2002, and even more in volume. Investment has provided the main growth in recent years, with the relative share of operating expenditure declining accordingly. Much of the investment is made by local authorities for water treatment and waste management. Investment's share of the total in 2002 amounted to EUR 7.7 billion, or 2.6% of gross fixed capital formation.

Environmental management expenditure (i.e. the environmental protection expenditure discussed above plus spending on water supply, recycling/recovery and quality of life) amounted to *EUR 43 billion in 2002, or 2.8% of GDP* (Table 5.3). The

Table 5.3 **Environmental management expenditure**, 2002

(EUR million)

	Public sector[a]	Private sector	Households	Total	GDP (%)
A. ENVIRONMENTAL PROTECTION EXPENDITURE[b]	8 218	12 518	8 078	28 814	*1.9*
Sewerage and waste water treatment	3 000	4 163	4 019	11 182	
Air	75	1 396	139	1 610	
Noise	131	430	315	876	
Waste	1 399	5 740	3 559	10 697	
Subtotal pollution[c]	4 392	11 729	8 032	23 489	*1.55*
Street cleaning	1 078	..	..	1 078	
Nature	438	424	47	862	
Research and development	722	365	–	1 087	
General administration	1 377	..	–	1 377	
B. OTHER ENVIRONMENTAL EXPENDITURE					
Quality of life	1 735	..	..	1 735	
Drinking water supply	1 494	2 232	3 554	7 280	
Recycling/recovery	..	4 743	..	4 743	
Total (A + B)[d]	11 447	19 492	11 632	42 572	*2.8*

a) Central government, regional authorities, départements and local authorities, consortia of municipalities and specialist agencies (includes revenue from charges).

b) Environmental protection expenditure, including pollution abatement and control expenditure (presented by economic sector). Rose from 1.43% of GDP in 1990 to 1.73% in 1996 and 1.90% in 2002. Investment amounts to EUR 7.7 billion or 2.6% of gross fixed capital formation.

c) Expenditure on pollution abatement and control (presented by economic sector).

d) Environmental management expenditure, of which EUR 10 billion (3.4% of gross fixed capital formation) is investment.

Source: MEDD, 2003.

Water Agencies and départements are the main sources of funds, along with users paying for services. Investment amounted to some EUR 10 billion in 2002, or 3.4% of gross fixed capital formation.

Competitiveness

The implementation of environmental policy *does not seem to have posed any real problem regarding competitiveness* in France so far. In practice, even business leaders see competitiveness issues as generally being linked not to environmental policies but rather to other variables, such as the euro-dollar exchange rate, labour costs and proximity to markets. Indeed, strict environmental regulation can generate an advance in technology or profit potential that translates into a strategic competitive advantage. For example, French firms lead the world in the water sector. More generally, big companies are aware of the need to play an active part in promoting environmental protection and sustainable development. Many of them have taken significant steps towards integrating these needs into their day-to-day activities in France and abroad, through instruments such as environmental management systems, environment reports, international initiatives and voluntary partnerships such as Type II (Johannesburg) projects.

In theory, higher production costs can mean fewer exports and more imports and can displace investment towards less highly regulated countries. Concern may exist in some firms or sectors that particular regulations or approaches will seriously undermine competitiveness. This issue is perhaps most sensitive where *risk prevention* is concerned. Such concern explains why making the precautionary principle part of the Constitution was so hotly debated even though the principle was already enshrined in legislation.

In the future, problems with competitiveness could arise if a more ambitious line were taken in certain areas of environmental policy, such as stiffer measures to reduce GHG emissions or higher costs resulting from implementation of EU water directives.

2.4 Economic instruments

Current situation

France makes *extensive use of economic instruments* in the form of environmental taxes, charges and various types of financial support: 68 such instruments have been identified, including 48 taxes and charges (Table 5.6). The *energy and transport taxes*, which are the most important in terms of revenue raised (energy taxes, including fuel taxes, raise EUR 25 billion per year and transport taxes EUR 2 billion), were created for purely fiscal purposes (Table 5.2). *Direct environmental taxes and charges* are mostly levied at municipal level. Charges for services (water supply, sewage and waste disposal) raise EUR 12.5 billion and other charges EUR 3 billion (equivalent to EUR 54 per inhabitant), half of which goes to finance the water sector, generally through municipalities.

The *TGAP*, introduced in 1999, replaced pollution charges on industrial waste, municipal waste, air, noise and used oil (Box 5.3). It was extended in 2000 to cover detergents, pesticides, gravel and classified installations. Its revenue is earmarked for the social welfare system. The effectiveness of the 2000 measure, designed to encourage the use of non-phosphate detergents and limit the use of pesticides, is not reduced by its being earmarked.

In addition to imposition of the TGAP, *charges for services* have increased by over 25% (Table 5.7). Revenue from water charges amounts to some EUR 9 billion and that from waste charges to EUR 3.5 billion. The increases have had a significant effect on waste and water management.

Financial aid is highest in the water sector and mostly finances sewage treatment. Such transfers amounted to EUR 1.19 billion in 2001, representing 43.5% of capital spending on sewage treatment. The amount of aid is falling, however, as businesses receive less support. ADEME grants for municipal and industrial waste management have fallen to about EUR 120 million.

Desirable measures

The use of economic instruments, although extensive, could be improved. Concerning the *instruments whose role is mainly to raise revenue*, an increase in the *rates of charges and taxes* would better cover government agencies' costs (Table 5.8) and improve internalisation of externalities. This is particularly true of pollution taxes and charges. The system of waste management taxes and charges is another example of a financial rather than incentive-based rationale. Concerning *instruments intended mainly to provide incentives* (e.g. "bonus-malus" on car purchases, congestion charging, emission permit trading, measures concerning nature and agriculture) much remains to be done. Measures set forth in the *national health and environment plan* related to emissions from mobile sources could be defined and implemented. Coverage of CO_2 emissions in the TGAP could be reconsidered for activities not covered by emission quotas. The biggest emitters (the energy production, cement, and iron and steel industries) must take part in the EU market for CO_2 emission permits, which started on 1 January 2005. The fuel tax differential between petrol and diesel fuel could continue to narrow. A degree of harmonisation with neighbouring countries' fuel taxes would also be welcome. To prepare such reforms, a *green tax commission* should be set up under the authority of the Prime Minister.

Table 5.6 **Economic instruments**[a]

	Type	Beneficiary	Rate	Revenue 2001[b]
Water	Pollution charge Withdrawal charge (since 1964)	Water Agencies	Based on actual or estimated amount discharged (decided by River Basin Committee)	EUR 1 333 million + EUR 262 million (redistributed to local authorities, industry and farmers)
	Water supply charge	Municipalities	Based on volume	EUR 9 036 million to cover water supply and waste water treatment
	Water tax	Central govt.	Based on volume	EUR 85 million for FNDAE[c] and PMPOA[d]
Phosphate	Pollution tax on detergents (1999)	Central govt.	EUR 72-87/tonne	EUR 84 million (earmarked for social welfare programmes)
			162 taxpayers	Incentive tax
Pesticide	Pollution tax on antiparasite pesticides (1999)	Central govt.		EUR 36 million Incentive tax
Mineral water	Withdrawal charge	Central govt. Municipalities	EUR 0.54/litre EUR 0.58/litre	EUR 20 million Waste water treatment

Air	Charge on emissions of SO_X, NO_X, VOCs and hydrogen chloride from facilities emitting over 150 tonnes a year or with capacity of over 20 MW, or incinerating over 3 tonnes an hour of waste (1985)	Central govt.	EUR 27-57/tonne	EUR 28.4 million
Household waste	Household waste collection tax	Municipalities	Based on property value. Average EUR 65/inh.	EUR 3 090 million
	Household waste collection charge (1926)		Average EUR 46/inh.	EUR 360 million
Campsite household waste	Collection charge (1973)	Municipalities		
Ordinary industrial and commercial waste	Special collection charge (1992)	Municipalities	Based on service provided	EUR 80 million (2002)
Landfills	Pollution tax on disposal to landfill of household and similar waste (1992)	Central govt.	EUR 9-18/tonne	EUR 227 million (waste management modernisation and contaminated site clean-up fund)
Disposal of special industrial waste	Pollution tax (1995)	Central govt.	EUR 9-18/tonne	EUR 30 million (clean-up of orphan contaminated sites)
Oil	Pollution tax (1999)	Central govt.	Industrial oil: EUR 38/tonne	EUR 27 million (paid to firms collecting waste oil)
Street cleaning	Tax	Municipalities	Based on pavement length	EUR 64 million (2000)
Aircraft noise	Take-off tax, aircraft of over 2 tonnes (1992)	Central govt.	EUR 8-22/tonne	EUR 10 million (2002)
Aggregates	Pollution tax on sand and gravel	Central govt.	EUR 0.09/tonne	EUR 28.6 million (earmarked for social welfare programmes)

Parks and gardens	Département tax on sensitive natural sites	Département	Based on construction	EUR 100.5 million (2000) to buy and safeguard unspoilt areas
Overbuilding	Tax (1975)	Municipalities Département	–	EUR 32 million (2000)
Classified installations	Pollution tax (1999)	Central govt.	–	EUR 20 million (2000) cost of inspections
Electricity pylons	Tax on transmission lines of 200 kV and over	Municipalities	–	EUR 134 million
Nuclear power plants	Inspection charge (1960)	Central govt.	–	EUR 129 million (2000)

a) Excluding energy and transport taxes (Table 5.2).
b) Unless otherwise specified.
c) Fonds national pour le développement des adductions d'eau.
d) Programme de maîtrise des pollutions d'origine agricole.
Source: IFEN.

Water Agency charges

The bulk of the revenue of environment-related economic instruments comes from the charges collected by the Water Agencies from local authorities, businesses and farmers, totalling almost EUR 1.6 billion in 2001. This money finances aid for sewerage and waste water treatment projects, chosen by River Basin Committees, to preserve water resources and control pollution (Chapter 3). The basic principle at work is "*water pays for water*", combined with the idea that charges should largely be used in the sector concerned. Water charges are a form of environmental taxation at

Table 5.7 **Trends in revenue from environmentally related taxes**

(EUR million)

	1995	2001	Change 1995-2001 (%)
Energy	23 487	24 685	*+5*
of which: *Taxes*[a]	*21 970*	*23 172*	*+6*
Transport	3 639	2 375	*–35*
Water	9 044	11 135	*+23*

of which:			
Taxes	*1 372*	*2 099*	*+53*
Charges	*7 672*	*9 036*	*+18*
Air	24	28	*+16*
Waste	2 532	4 163	*+64*
of which:			
Taxes	*111*	*670*	*+505*
Charges	*2 421*	*3 494*	*+44*
Natural resources	99	97	*–2*
Landscapes	212	284	*+34*
of which:			
Taxes	*118*	*156*	*+33*
Charges	*95*	*128*	*+36*
Risk prevention	102	149	*+47*
Noise	6	10	*+77*
Total revenue	39 145	42 928	*+10*
of which:			
Energy taxes	*23 487*	*24 685*	*+5*
Non-energy taxes	*5 470*	*5 584*	*+2*
Charges	*10 188*	*12 658*	*+24*

a) Domestic taxes on oil products (includes fuel taxes).
Source: Report to the Commission for Environmental Accounting and Economics.

river basin level rather than national level, and are *strongly influenced by the concept of mutual benefit*. Neither the River Basin Committees nor elected officials endorse the idea of collecting charges centrally and then redistributing them among various spheres of public action. They prefer to retain a system that is well-accepted by society, has proved effective and is used as a model. Thus, there is no pollution tax for water, only payments from the Water Agencies to MEDD for actions of interest to all six agencies.

Major changes to the financing system at river basin level would be inadvisable, but the Water Agencies need to improve the economic effectiveness of the financial aid they disburse. This is particularly important because water pricing is due to become more incentive-based by 2009 and should better reflect environmental costs. Accordingly, a *more rigorous economic approach* will be in order, along with development of cost-benefit analysis in river basin management. The *agricultural sector* will be asked to increase its contribution to the agencies' work, and municipal charges should be modified to reflect real pollution costs as far as possible. Needed reforms to Water Agency charges will be discussed in the context of a future Water Law that will increase parliamentary control of water charges but, under the *subsidiarity principle*, should leave the agencies and elected officials with considerable latitude.

Table 5.8 **Public environmental revenue and expenditure**, 2001

	Public expenditure on environmental protection[a] (EUR million)	Revenue[b] (excluding measures to recover costs) (EUR million)	Proportion of expenditure covered by revenue (%)
Water management	4 285	2 100	*49*
Waste	1 584	670	*42*
Air	60	28	*47*
Biodiversity and landscapes	429	156	*36*
Noise	80	10	*13*
Total	6 438	2 964	*46*

a) Excluding expenditure covered by charges for services provided.
b) Excluding charges for services provided (water and waste water: EUR 9 billion, municipal waste: EUR 3.4 billion), paid directly to municipalities.
Source: IFEN.

1. Environment and Employment

Given the high level of unemployment, jobs have long been a prime government concern and hence taken into account in environmental policies: the Commission for Environmental Accounting and Economics *regularly evaluates* the links between employment and the environment (Box 6.1).

The number of environmental jobs in Metropolitan France rose from 298 000 in 1996 to about 316 000 in 2002. This long-term rise seems to be more structural than cyclical. The New Services, Youth Employment programme contributed significantly to the increase (Box 6.2). Two-thirds of environmental jobs are in *water, waste water and waste management* (Table 6.1). Eco-enterprises account for 57% of environmental jobs and public services for one-third, the remaining 4 400 to 9 000 jobs being with NGOs. The environment accounts for 1.35% of total employment in France. Waste management and water management were the sectors in which most of the jobs were created between 1996 and 2002 (Table 6.1), as a result of rises in waste recycling and local authority investment in waste water and sewage treatment networks.

Box 6.2 **Environmental job creation programmes**

Aid for first-time jobs in new activities, a special instrument of environment and employment policy, has a twin aim: to generate employment for people in difficulty and young people entering the labour market for the first time, and to encourage formation of new activities. The Ministry of the Environment launched an "innovation, employment, environment" programme in the early 1980s to demonstrate the potential for environmental employment. A community work programme followed in 1984 and "solidarity" job contracts in 1989.

In the *New Services, Youth Employment* programme, launched in 1997, the government and partner organisations concluded five-year agreements. The programme was designed to place young, first-time job seekers in posts created to meet emerging or unsatisfied needs in areas including environment, sport, culture, education and local services. The programme ended in 2002. In 2003, 38 000 jobs were created in the environment sector, which accounted for 12.6% of youth employment in the programme, second only to social services. The young people were mostly hired by local authorities, especially for waste separation programmes, environmental education and the upkeep of natural areas. The programme helped encourage the growth of such activities and create long-term employment. It contributed significantly to the increase in public sector environmental employment. NGOs also benefited from the programme. Many of the new jobs are being made permanent, but it is too soon to draw firm conclusions about the overall effectiveness of the programme, the last contracts under which end in 2007.

Table 6.1 **Environmental employment**, 1996-2002

	1996	1998	2000	2002
Air pollution	9 400	9 300	7 500	7 600
Waste water	79 600	83 400	88 200	91 100
Waste	71 300	73 500	75 300	79 200
Rehabilitation of soil and water	400	500	500	1 700
Noise	7 400	7 200	8 300	8 500
Measurement and control	2 400	2 600	3 000	1 900
Nature, landscape, biodiversity	8 100	9 300	10 300	12 200
Water supply	48 800	33 700	32 300	31 800
Recycling	25 400	28 600	29 400	30 100
Quality of life	22 300	22 900	24 400	24 000
Cross-cutting activities	23 200	24 100	25 800	26 700
Total	298 300	295 100	305 000	314 800

Source: IFEN.

It is difficult to evaluate the effect of environmental policies on employment. Overall, the available data and various economic models suggest that *environmental policies have a small but positive effect on employment*. At first, environmental policies may have contributed to redundancies and site closures, albeit in conjunction with other factors. Later the acquisition of special equipment to assure compliance with environmental standards generated an expanding market (an additional thousand or so jobs between 1996 and 2000). The spread of certification could increase recruitment of executives with environmental responsibilities. Other factors, however, such as labour costs, exchange rates and market access, have a much greater influence on employment.

As regards *employment and training*, mismatches observed in the past still exist. The vast majority of environmental jobs are manual labour and involve pollution management; only some require environmental qualifications as such. In the latter case, jobs tend to be for people at higher qualification levels (managers, technicians) and involve nature management and protection. The response to this demand has tended to be a profusion of generally poorly focused training courses.

6.1 Prices

One objective of French energy policy is to be able to supply energy to firms and households under optimum conditions of quality and cost. Residential and industrial *electricity* prices are lower than in other major EU countries, particularly for industry. The price of *natural gas* for industrial use is slightly above the EU average, whereas that for household use is around the EU average. The price of *oil*, for both industry and households, is lower than the EU average (Table 7.5).

Electricity rates are the same throughout France, and the 2003 Law on the Gas and Electricity Markets and Public Energy Service established the principle of close harmonisation of *natural gas* prices, stating that tariff differentials cannot be greater than the differences in costs for connecting to the natural gas grid. The law also provides continued access to energy supplies for *persons in difficulty*.

6.2 Energy taxation and the environment

Energy taxation is based primarily on a system of harmonised excise duties at EU level. The *national oil product tax (TIPP)* is the main tax on energy products, representing, at EUR 24 billion a year, some 11% of government revenue and 1.8% of

GDP. Fuel taxes account for over 90% of this revenue. Heavy and domestic fuel oils are also taxed, but at lower rates, and in certain non-combustion uses they are tax exempt. Natural gas use (except as motor fuel) is subject to the national tax on natural gas consumption, whose revenue amounts to some EUR 120 million. These taxes may be waived for social reasons (e.g. in the case of heating in residential blocks) or environmental ones (e.g. for cogeneration plants). In general *the taxes are not directly linked to environmental externalities* of fuel use, notably CO_2 emissions, which contribute to global warming. Although *coal* is the most polluting fuel, it *is not taxed* and thus enjoys an indirect subsidy.

Oil product taxes

The TIPP primarily affects transport, since it is mainly applied to *motor vehicle fuel*. Fuel taxes in France are high compared with North America, but lower

Table 7.5 **Energy prices in selected OECD countries**, 2003

	Electricity		Oil		Natural gas	
	Industry (USD[c]/kWh)	Households (USD[d]/kWh)	Industry[a] (USD[c]/tonne)	Households[b] (USD[d]/1 000 litres)	Industry (USD[c]/10^7 kcal)	Households (USD[d]/10^7 kcal)
France	0.045	0.123	209.3	427.2	229.1	506.4
Canada	..	..	211.3	468.1	210.1	391.0
United States[e]	0.049	0.087	195.8	369.8	222.7	365.0
Japan	0.115[f]	0.150[f]	237.9	342.3	357.0[f]	935.1[f]
Germany	0.049[f]	0.146[f]	..	360.3	187.9[h]	407.6[h]
Italy	0.113[f]	0.195[f]	220.7[f]	991.0	..	..
United Kingdom	0.055	0.111	203.1[f]	291.4	161.9	337.7
OECD Europe	0.059[f]	0.140[f]	..	458.9	157.4[h]	400.4[h]
OECD	0.062[g]	0.110[g]	205.7[f]	442.2	162.0[f]	380.0[f]
France/OECD Europe (%)	*63*[f]	*87*[f]	..	*93*	*107*[h]	*102*[h]
France/OECD (%)	*56*[g]	*109*[g]	*85*[f]	*97*	*106*[f]	*130*[f]

a) High-sulphur oil.
b) Light fuel oil.
c) At current exchange rates.
d) At current purchasing power parities.
e) Electricity prices exclude tax.
f) 2002 data.
g) 2001 data.
h) 2000 data.
Source: IEA-OECD.

than those in some European countries (e.g. Germany, Italy, United Kingdom) (Figure 2.3). The difference between taxes on diesel fuel and those on petrol has led to strong growth in the share of diesel-powered vehicles in the fleet. In 1998 the government committed itself to reducing the differential to the European average within seven years. After two years of reduction the process was suspended in the autumn of 2000 following the sharp increase in oil prices, then was resumed in early 2004 with an increase in diesel tax of EUR 0.03 per litre. This measure is a step in the right direction but should be extended to heavy goods vehicles. While fuel taxes are an effective weapon against CO_2 emissions, they are ill-suited to internalising environmental externalities linked to the use of vehicles whose characteristics vary widely according to where they are used (town or country) and their technical specifications. The taxation of transport therefore needs to evolve towards making *tax bases more closely related* to infrastructure use, location of vehicle use and the environmental characteristics of vehicles (Chapter 2).

Some *tax exemptions or reductions* granted in certain sectors are hard to justify in terms of marginal social cost. Road haulage companies and public transport companies benefit from a partial rebate of TIPP. Public transport operators are exempt from TIPP on LPG and natural gas, which entail lower CO_2 emissions. Aviation and marine fuel is also exempt, under international agreements. Diesel fuel used by farmers is taxed at the rate for household fuel oil, which is one-seventh the normal diesel tax.

Other fiscal measures

Aside from the TIPP, only the tax on motorways, payable by motorway concession holders, is directly based on number of kilometres travelled. Other *taxes on land transport* are generally based on vehicle type, such as the axle tax and the registration tax on all vehicles, which is set at regional level and depends on the car's taxable power rating. These taxes serve to internalise the costs of transport infrastructure, congestion, road safety problems and local pollution. The abolition in the autumn of 2000 of the annual road tax on private cars, for which different categories had been introduced the year before to take account of vehicle emission characteristics, illustrates the lack of policy consistency in this area (Chapter 2).

Electricity is subject to taxes on extra-high-voltage transmission line pylons (revenue of EUR 134 million in 2001), hydroelectricity (EUR 299 million in 2001) and basic nuclear installations (EUR 130 million in 2000), as well as a levy to finance the Electricity Production Public Service Fund, the general tax on polluting activities (for air pollution) and charges levied by the river basin financial agencies. In addition, the optional local infrastructure tax, revenue from which goes to municipalities and départements (EUR 1.2 billion in 2001), is based on the amount of electricity consumed. It could have unwelcome effects, since the higher consumption is, the more revenue the relevant local authority receives. The hydroelectricity tax is completely at odds with the energy policy goal of encouraging the use of renewables.

Some *positive fiscal measures*, including tax credits and exceptional depreciation, are aimed at encouraging the production and use of renewables, as well as investment in energy savings (e.g. purchases of insulation or boilers). Revenue amounted to EUR 100 million in 2002.

Desirable changes

The energy tax regime has evolved over several decades and now displays many *inconsistencies* with current objectives. Some environmentally damaging aspects of energy taxation (e.g. related to conventional pollutants and GHGs), such as the tax differential between petrol and diesel, tax exemptions or reductions for hauliers and the hydroelectricity tax, should ultimately be revised or discarded. To initiate such a reform, it would be advisable to set up a *green tax commission* reporting to the Prime Minister, as in some other OECD countries.

5. Conservation of Marine Resources

The *French sea fishing industry* produced 720 000 tonnes of fish, crustaceans, algae and shellfish in 2003, including 24 000 tonnes from overseas territories, generating sales of EUR 1.3 billion and employing 21 500 sailors (3 500 of them in overseas territories). Over two-thirds of the catch of the metropolitan French fleet is taken in the north-east Atlantic, followed (by size of catch) by the western Indian Ocean (including tropical tuna), the tropical Atlantic and the Mediterranean (source of 7% of the catch). France ranks 11th among OECD countries in terms of volume of catch. *Average consumption of marine products*, which is rising, is 34 kg per year per inhabitant (in live weight equivalent), making France a net importer. Sea fishing accounts for less than 0.1% of GDP, and its *economic importance* varies considerably by region: 40% of the catch is landed in Brittany.

In EU waters, management of fishery resources in France's EEZ is part of the remit of the EU's *Common Fisheries Policy* (CFP). In the 2002 reform of the CFP, France supported three principles: i) preserving overall balance with regard to access, maintaining rules for access to coastal waters and keeping member states' quota allocations relatively stable; ii) aiming for sustainable management of resources by re-emphasising total allowable catch (TAC) and quotas as central to the CFP and supporting them through improved scientific knowledge, a multi-year approach and stepped-up controls; and iii) ensuring that fleet policy allows for vessel modernisation and replacement without increasing overall fishing capacity. In preparatory negotiations on the reform France was one of the "*fishing-friendly*" countries (with Spain, Portugal, Ireland, Italy and Greece), defending the second and third principles in particular.

5.1 Fleet management

The French fleet comprises 7 900 vessels (including 2 350 in overseas territories), most of them smaller boats of less than 12 metres. In an effort to *reduce overfishing*, the International Plan of Action for the Management of Fishing Capacity of the UN Food and Agriculture Organization (FAO) advises countries with an over-capacity problem to reduce fishing capacity and abolish subsidies that lead to overcapacity. Under EU multi-year guidance programmes, since the early 1990s France has taken steps to reduce fleet capacity. The fishing fleet of Metropolitan France fell, in power terms, from 960 686 kW at the end of 1997 to 910 532 kW at the end of 2002. In 2001 France took additional measures at national level to *reduce fleet capacity and fishing*, and continued this effort in 2003-04.

5.2 *Conservation of fish stocks*

The International Council for the Exploration of the Sea (ICES) considers some *North Sea* fish stocks to be outside safe biological limits. Most species sought by the French fleet are among those classified as overfished (cod, saithe, anglerfish, sole, langoustine, mackerel), though French vessels operate relatively little in the North Sea, taking 5-10% of the total catch. Stocks ranked by ICES as being in good condition are generally open-sea species such as sardine, sprat and tuna, the pressure being greater on coastal stocks. Following the 2002 CFP reform, measures to limit cod fishing in the North Sea were incorporated into a 2003 plan to reconstitute stocks, with restrictions being imposed on the time some fishing vessels could spend at sea.

France has also developed national *management instruments* that meet EU requirements, such as caps on scallop catches. It is very active in measures to combat the types of illegal fishing denounced by the FAO. It has concluded co-operation agreements, with Australia for example, and has developed a radar surveillance system around the Kerguelen Islands, where there is a particularly vulnerable stock of deep-water fish.

Fishing in the *Mediterranean* has particular characteristics as regards variety and density of users, target species and the absence of TAC or quotas except for red tuna. The forum for international co-operation to conserve its fish stocks is the *General Fisheries Commission for the Mediterranean*, which recently became a consultative body within the FAO. France is a member (other include Spain, Italy and Greece), and is responsible for budgetary, legal and procedural matters. The EU is also a member, by virtue of its resource management authority. Since 1990 France has also made its own national arrangements regarding resource conservation in the Mediterranean, based on a system of licences for different types of fishing (e.g. bottom trawling, midwater trawling, bottom seining, oyster dragging, drift netting, pair trawling).

5.3 *Protection of marine ecosystems and mammals*

Progress was made during the review period on the protection of marine ecosystems and mammals, including the proposal of 500 000 hectares of sea to be designated special areas under the habitats directive and the establishment of 13 nature reserves. The declaration, with Italy and Monaco, of a marine sanctuary for cetaceans in the Mediterranean, covering 87 500 km^2, is a significant innovation in international law, since it includes areas outside national jurisdiction and thus is a precedent for developing a global system of protected areas on the high seas (Box 8.3). France has launched and is co-financing an initiative to protect coral reefs in the Pacific (Chapter 4).

6. International Trade and the Environment

France has been very active in international negotiations on trade and environment in the General Agreement on Tariffs and Trade (GATT) and WTO. It generally manages to *reconcile its international trade with its environmental commitments*. Progress is still needed in some areas, however, such as border controls on ozone-depleting substances, hazardous waste, tropical timber and products derived from endangered species.

6.1 Ozone-depleting substances

Since 1996, France has *systematically applied EU legislation* and met the deadlines for phasing out ozone-depleting substances, though not early as it did in the 1980s when it was the world's second largest producer of CFCs. France stopped producing and using halons in 1994 and CFCs in 1996. While complying with EU legislation it remains the world's second largest producer of HCFCs, after the United States, with output of 5 080 ODP tonnes in 2003, an increase of 117% since 1989. It is also the only EU country still producing the fungicide methyl bromide (1 010 ODP tonnes, 60% less than in 1991). Its production of carbon tetrachloride has been cut by 97% and that of methyl chloroform by 99%. In 2003 France ratified the 1999 Beijing Amendment to the Montreal Protocol, prohibiting international trade in HCFCs with certain countries and extending controls to the production of HCFCs and bromochloromethane. The same year it also ratified the Montreal Amendment, which provides for a system for licensing imports and exports of new, used, recycled and reclaimed controlled substances.

As in other countries, little information is available about French *controls and curbs* of illegal trade in ozone-depleting substances. Customs officers carry out checks (partly computerised) at frontiers. Fines may amount to as much as twice the value of the goods concerned and offenders can also be imprisoned for up to three years. UNEP terms illegal activity in France "moderately high" and says it often taking the form of illegal re-imports from Eastern Europe. An Environmental Investigation Agency survey in 2002 indicated that the EU ban on trade in or use of CFCs (EU Regulation 2037/2000) could still be circumvented since four out of 31 potential suppliers contacted anonymously in France offered to sell CFC-12.

6.2 *Hazardous waste*

Since 2000, France has *exported some 200 000 tonnes of hazardous waste per year*, over 90% of it to other European countries, including Belgium (50%), Germany (20%), the UK (10%) and Norway (10%). In accordance with EU Regulation 259/93/EEC on movements of waste, France prohibits almost all exports of waste for final disposal to non-EU countries (except Norway and Switzerland). Exported waste mainly originates in border regions, such as Alsace, Nord-Pas-de-Calais and Rhône-Alpes, and is shipped to nearby specialist recycling facilities.

France *imported 1.3 million tonnes of hazardous waste* in 2001, about 90% of it for recycling and the rest for final disposal. Most of the imports were from other EU countries, especially Germany and Belgium. The annual volume of hazardous waste *in transit* through France is unknown, since no information is available about compliance with prior notification procedures, customs inspections of waste shipments at frontiers or the imposition of penalties.

6.3 *Hazardous chemicals*

France ratified the 1998 Rotterdam Convention and applies the principle of *prior informed consent* (PIC) for exports of hazardous chemicals and pesticides that are

potentially harmful to the environment, especially *exports of hazardous chemicals* to developing countries. The EU directive on PIC requires: i) notification of intent to export chemicals that are banned or strictly regulated in the EU; ii) compliance with the optional PIC procedure laid down by UNEP and the FAO; and iii) packaging and labelling of chemicals in compliance with EU law. France has helped ensure that these practices are in general use.

In 2004 France became the 50th country to ratify the 2001 *Stockholm Convention on POPs*, enabling the pact to enter into force. It has already almost entirely fulfilled its obligations under the convention, having banned production and use of all substances covered and introduced regulations to reduce dioxin emissions. The national implementing plan still needs to be completed, however, to fill minor gaps in the legislation.

6.4 Tropical timber

France is one of Europe's *leading importers* of tropical timber (round wood, sawn wood, veneer, plywood), accounting for about 19% of EU imports. Imports have been stable. About 40% of plywood, 42% of veneer and 36% of round wood imported into France comes from tropical forests. France is the top EU importer of tropical round wood (450 000 m^3 in 2002) and the world's fourth largest. The imported round wood is mostly made into sawn wood and plywood. France's exports of tropical timber other than plywood are minimal.

The *Year 2000 Objective* of the International Tropical Timber Organization states that all tropical timber products traded internationally should come from sustainably managed forests. Complying with this commitment has proved very difficult in practice, and it is likely that most tropical timber and derived products imported into France do not meet this criterion. In 2004 MEDD proposed an action plan for tropical forests aiming to curb illegal imports of tropical timber by stepping up customs controls and ensuring that purchases by public authorities, which account for 25% of the tropical timber imported into France, come from certified forests. France has a larger expanse of tropical forest (8 million hectares, mostly in French Guiana) than any other industrialised country (Chapter 4).

6.5 Endangered species

France ratified the 1973 *Washington Convention* on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1978. CITES regulates or prohibits international trade (import, export and re-export) in certain endangered species and derived parts or products such as skins, furs, feathers, tusks, trophies, wood, flowers, art objects and prepared food products. Although the EU is not a party

to CITES, it sets the terms and conditions for applying CITES within its member states. EU regulations are stricter than CITES where transactions with third countries are concerned, but facilitate trade among member states. France's *own measures* on the protection of species present in their natural state on French territory (including the overseas territories) are stricter than CITES.

MEDD is responsible for general *oversight* of activities associated with CITES, while the National Natural History Museum is responsible for *scientific support*. Regional Environment Directorates (DIREN) handle applications for licences and certificates (36 284 applications in 2003). *Controls* are carried out by customs officers and officials from other agencies, such as the National Forestry Office, National Hunting and Wildlife Office, Higher Council on Fisheries, Life Sciences Directorate, police and gendarmerie and the national parks. French inspectors have taken part in EU-sponsored training relating to application of CITES and in training courses organised in France by the police, customs service and other enforcement agencies. French customs reported 514 offences in 2003, mainly in airports and ports, resulting in the interception of 6 475 specimens of endangered species: 554 live animals, 327 stuffed animals, 551 pieces of ivory, 2 602 shells and corals and 2 441 miscellaneous products derived from protected species. The live animals confiscated are mainly snakes and tortoises.

Despite these efforts, it could be helpful to: i) *increase the human resources* assigned to oversight, scientific support and inspection; and ii) increase the administrative and criminal *penalties* (potentially a fine of EUR 9 000 and six months' imprisonment) to make them more of a deterrent in comparison with the benefits that can be expected from illegal trading.

7. Financing of Development

7.1 Official development assistance

France devoted 0.41% of its gross national income (GNI) to official development assistance (ODA) in 2003 (Figure 8.2), putting it first among the *G7 countries in terms of ODA/GNI* and seventh out of the 22 OECD countries on the Development Assistance Committee (DAC). France's ODA declined between 1996 and 2000 but has increased since 2001, reaching EUR 5.9 billion in 2003 compared with EUR 4.4 billion (0.38% of GNI) in 2001. The medium-term EU objective is 0.35% of GNI and the UN objective is 0.70%.

The French Development Agency seeks to integrate *environmental considerations* into its general aid projects. The Ministry of Foreign Affairs estimates that at least 10% of programme and project aid is devoted to actions relating to water,

biodiversity, desertification, climate change, fishing and the marine environment. France gives particular priority to improving water conservation, waste and waste water processing, and transport and energy management. As well as contributing EUR 164 million over four years to the GEF, France has established a special *French GEF* (FFEM), with EUR 67 million over four years, to help finance environmental projects, especially in African and Mediterranean countries, with objectives similar to those of the GEF (Box 8.4, Table 8.4). Over 2002-03, France also contributed EUR 41 million to the Multilateral Fund for the Implementation of the Montreal Protocol.

The international community has recently made ambitious commitments, in the Millennium Declaration, the Monterrey Consensus and the Johannesburg Declaration, to reducing poverty and assuring access to drinking water, sewage treatment, health, food and energy. During the International Conference on Financing for Development in Monterrey (2002), France committed to increasing its ODA to 0.5% of GNI (around EUR 7.3 billion) by 2007 and 0.7% by 2012. At least half the additional resources are to aid Africa so as to help achieve the Millennium Development Goals.

Under the Bonn commitments given by the EU and five countries, France has to meet some 10% of the total objective, representing a EUR 40.8 million per year increase in funding for climate change abatement from 2005, through the GEF, FFEM and DAC, and new channels. Between 1999 and 2003, France devoted some EUR 150 million a year of its ODA to climate change. Under the action plan of the New Partnership for Africa's Development, the French President recently announced a doubling of development aid for water supply and sanitation projects in Africa between 2003 and 2009. On the initiative of the African Development Bank, France is expected to host the first donor conference on this effort in the first half of 2005.

7.2 *Other forms of assistance and public-private partnerships*

France also uses *bilateral aid*, through "priority solidarity funds", to contribute to environmental and development objectives. For example, since its commitment to forgive bilateral debt as part of the initiative to help *highly indebted countries*, many debt forgiveness contracts concluded since 1999 have freed funds for natural resource management and regional development.

France recognises that the private sector has an important role to play in development and continues to support *public-private partnerships* and encourage the involvement of all stakeholders, including local authorities, NGOs and businesses, in co-operation for sustainable development in the developing world. Having actively contributed to work in Johannesburg on a new partnership instrument, the Type 2 initiative, France is a major participant in 25 such initiatives (10% of those listed on the UN Web site). It is also working with the UN Secretariat on a monitoring and evaluation methodology.

France continues to integrate environmental concerns into its export assistance policies and plays an active part in the OECD Working Party on *Export Credits*. It rapidly transposed the 2003 OECD Recommendation for government export credit agencies to meet certain environmental and transparency standards. COFACE, the *French export credit agency*, has in fact been implementing a policy since 2000 that complies with the OECD approach regarding environment and includes environmental impact assessments (EIAs) in the procedure for processing applications for

Table 8.4 **French Global Environment Facility activities**, 1994-2002

	Number of projects identified	Number of projects funded[a]	Amount[a] (EUR million)
Area			
Biodiversity	53	43 *(81)*	49.7 *(42.9)*
Climate change	26	26 *(100)*	29.8 *(25.8)*
International waters	13	11 *(84)*	17.1 *(14.8)*
Mixed (biodiversity/climate change)	14	14 *(100)*	19.1 *(16.5)*
Total	106	94 *(88)*	116.7 *(100)*

a) The figures in brackets are the percentage of identified projects funded (column 2) and each theme area's share of total funding (column 3).
Source: FFEM.

guarantees. COFACE has drawn up sectoral guidelines in three areas: thermal power stations, major dams and hydrocarbons. In 2003 it introduced *ex ante disclosure* of information about major projects, as the OECD Recommendation advises. For projects involving risks and costing over EUR 20 million, EIA results are made public 30 days before any decision is taken.