4.4 Pricing of waste water treatment

In 2005, *97% of the population* was connected to a treatment plant, one of the highest shares in any OECD country[27] (Figure 2.8); another 1% could still be connected. Connection is not economically desirable for the remaining 2%, who live in remote and sparsely populated areas (other methods are available to treat their waste water). Charges are used to finance sewerage and treatment. They are paid by both industry and households.

Under Article 60a of the 1991 federal *Law on Water Protection*, waste water treatment charges (sewerage and treatment) are designed primarily to cover investment and operating costs. They comprise a one-off connection charge and two annual charges (flat-rate and metered). The connection charge increases with the surface area of the property concerned, weighted according to the type of construction zone. The flat charge is levied per household or business (e.g. industry, workshop, provision of services), while the metered charge is based on water consumption. A rainwater charge has theoretically been added to the existing charges.[28]

A growing number of communes apply *mixed pricing* (combined flat and metered charges). This is the case in 10 cantons (out of 26), especially in the canton of Bern (28% of communes in 1997, 70% currently, with a target of 100% by 2010) and in the cities of Basel and Zurich. Other communes have opted for metered pricing only, as in the cantons of Basel Country and Solothurn and the cities of Geneva, Lausanne and Neuchâtel. Others, especially small communes, levy only a flat charge. In 2003, the annual average charge where there was mixed pricing, across all communes using this method, was CHF 150 per inhabitant equivalent (IE),[29] with the flat charge amounting to CHF 80/IE/year and the metered charge to CHF 2 per m^3. Overall, the waste water treatment bill in Switzerland in 2003 for all communes, including the connection charge, was CHF 120/IE/year, comparable to the average in France and slightly below the average in Germany. By comparison, in 2003 the drinking water bill in Switzerland was around CHF 95/IE/year.[30]

Operating costs

The *rate of recovery* of operating costs for waste water treatment has increased significantly, following changes in the organisation of water services (Box 2.7) and

the introduction of the polluter pays principle (PPP) in the Law on Water Protection in 1997 (Box 2.1). By 1 January 2005, 71% of communes had incorporated PPP into their regulations, compared with 41% at the beginning of 2000. Large cities were the first to comply with the changes, where they were not already in compliance. The goal is to achieve 100% compliance by 2007. In the canton of Bern the cost recovery rate has improved considerably, rising to 89% in 2003. The prohibition on use of sewage sludge as fertiliser,[31] introduced in 2006, has generated an additional cost for treatment plant operators estimated at CHF 40 million per year, or the cost of incinerating around 80 000 extra tonnes of sludge.

Capital costs

The emphasis in recent years has been on obtaining better coverage of *capital costs* based on amortisation, calculated on future replacement value. The replacement value is equivalent to the investment that would currently be required to newly build sewerage equipment of the same size. An annual allocation to a special fund ("maintenance of value special financing") has been created. It is calculated on the basis of an average operating life: 33 years (treatment plant) and 80 years (sewerage).

In the canton of Bern an *effluent charge* was also introduced in 2000. It has been successful as an incentive: many treatment plants have been able to reduce the amount of their charges by improving efficiency. Charges are paid into a "sewerage fund": 92% of the fund is used to finance new sewerage or treatment plants or extensions to existing plants; the remaining 8% is allocated to the cantonal budget.

Despite these efforts, *taxpayers are still too often called upon* to cover capital costs, especially for improvements to treatment plants (e.g. transition to tertiary treatment). For some time (since 1976) this mainly concerned plants discharging phosphorus and ammonia to lakes and sensitive watercourses. Since 1997, the focus has shifted to reducing nitrogen and phosphorus inputs to the North Sea. In each case *federal subsidies* have covered up to 50% of the capital cost.

3.5 The financial and economic approach

The *Confederation* allocated CHF 49.9 million in 2004 to support its policy of protection of nature and the landscape, and CHF 51.1 million in 2005. The 2006 budget contains CHF 50.4 million (Table 3.4). It is unlikely that allocations of this size will be sufficient to fund the significant developments planned for the next few years; further work needed to follow up on the existing inventories, new inventories, and support for a new generation of national parks and regional natural parks. There is a risk that, within the framework of a no-growth budget, trade-offs will be made to the detriment of monitoring and support for protected sites.

Table 3.4 **Biodiversity: allocation of federal funding**, 2006

(CHF '000)

Support for cantonal activities (Articles 13, 18d, 23c, 23j^{bis}, 25a LPN)	43 297
Conservation and revitalisation of biotopes and landscapes worthy of protection	20 867
Subventions for maintenance and nature-friendly exploitation of biotopes	15 000
Advice to cantons and federal agencies for execution of the LPN (data centres, advisory services, monitoring, implementation assistance)	5 000
Natural and landscape parks (support for specific projects)	2 430
Inventories and other federal databases (Articles 5, 14a, 18a, 23b LPN)	4 400
Inventories: meadows and dry grassland, amphibian breeding sites, flood plains	2 400
Protection of species: Red Lists, information sheets on species protection, etc.	2 000
Support for organisations and institutions (Articles 14, 14a LPN)	1 635
Miscellaneous: sectoral allocations (CFNP, protection of marshes, re-evaluation of the IFP)	1 118
Total	50 450

Source: Swiss authorities, communication.

Particular mention should be made of the *Swiss Landscape Fund* (SLF), created in 1991 for a period of ten years with funding of CHF 50 million. It has been extended to 2011, with an additional infusion of CHF 50 million. The Fund provides straightforward support for pilot projects, at the regional or local level, aimed at preserving and maintaining traditional rural landscapes. This is a positive initiative, and its long-term nature is an additional bonus.

Little information concerning the *economic value of the services provided by ecosystems and landscapes* is available, although the protection of natural and cultural settings is important from the point of view of hydrology and helps to *defend against natural hazards* and climate change. Natural landscapes are important for the development of *tourism* and other economic activities, and the services provided by ecosystems have been inventoried by many scientific publications.

The approach to *financing nature protection* is primarily administrative and political, and virtually no attention has been given by this policy to the concept of the services provided. Thus the tourism industry, which benefits from nature protection at the rate of CHF 2.5 billion (according to SECO, the State Secretariat for Economic Affairs), makes almost no direct contribution to it. Similarly, the quality that this policy helps give to Switzerland's image, and to its output of goods and services, is not properly evaluated or remunerated.

4.2 Sustainable forestry management

Switzerland's forests cover 12 340 km^2, having increased by 4% between 1985 and 1995; the density of standing timber also increased, from 333 to 354 m^2 per hectare, over the same period. Of the total, 57% is mixed forest close to its natural state. On the plateau the forest, still predominantly coniferous in places, is yielding to an increasing diversity of species. In forests, where 35% of the country's animal and plant species live, the share of threatened species is relatively low.

Since 1988, despite gains in labour productivity, management of public forests has produced growing deficits because of falling timber prices. In terms of both investment and management, cantonal and communal forests have been losing an average of CHF 80 million per year since 2000. Moreover, two-thirds of companies are losing money. Thus the *forest economy* is in a critical situation, which could compromise prospects for sustainable management.

Yet forest ecosystems produce important *positive externalities* with respect to hydrology, reduction of flooding and other natural disasters, biodiversity, tourism and recreation. The value of the recreational services provided by Swiss forests is estimated at *CHF 3.2 to CHF 10.5 billion* per year (Ott and Bauer, 2005). The ecological and social services provided by forest ecosystems would justify the Confederation and local governments in devoting to them an appropriate level of financing.

3. Integration via the Market

3.1 Environment-related taxes

Today there are 27 different *tax charges* related to the environment (taxes or levies) at federal, cantonal or communal level, 12 more than in 1990. The bulk of them were levied at federal (Table 4.2) and cantonal level. The total revenues amounted to some CHF 11.2 billion.

Table 4.2 **Environment-related taxes** (Confederation)

(CHF million)

Base	Name of tax	Type of tax	1998	1999	2000	2001	2002	2003	2004
Emissions	Tax on VOCs	Taxes			67.6	91.6	86.1	104.4	123.9
	Tax on polluted sites	Taxes				28.0	28.9	27.3	31.6
	Advance tax on disposal of glass packaging for drinks	Mixed				0.0	24.9	29.4	29.4
	Advance tax on disposal of batteries and accumulators	Mixed	11.6	13.0	12.5	17.2	20.3	21.4	15.1
	Advance tax on recycling of aluminium cans and packaging for food (and for animals)	Pr. vol. sol.[a]	5.6	6.2	7.0	7.4	7.3	7.7	7.6
	Advance tax on recycling of PCB bottles	Pr. vol. sol.[a]	21.5	22.5	23.8	24.3	34.8	42.3	41.2
	Advance tax on recycling of electrical or electronic appliances (SWICO)	Pr. vol. sol.[a]	17.5	17.4	17.3	16.5	24.0	33.7	40.9
	Advance tax on recycling of used vehicles	Pr. vol. sol.[a]	4.8	5.2	5.2	5.2	9.5	8.7	8.7
	Advance tax on food cans	Pr. vol. sol.[a]	1.3	1.3	1.3	1.5	2.2	2.3	2.1
	Advance tax on refrigerators, water heaters, electrical or electronic appliances (SENS)	Pr. vol. sol.[a]	11.7	11.6	12.1	12.5	9.0	38.0	43.8
Energy	Taxes on mineral oils and motor fuels	Taxes	2 792.5	2 862.2	2 949.2	2 901.5	2 854.2	2 895.4	2 926.7
	Taxes on heating oil	Taxes	27.0	24.7	22.6	26.0	25.0	23.5	23.5
	Surtax on mineral oils and motor fuels	Taxes	1 892.3	1 944.4	2 003.4	1 967.4	1 933.1	1 960.7	1 978.7
	Incentive tax on heating oil EX-L	Taxes	0.0	0.0	0.4	0.4	0.2	0.1	0.3
	Taxes on heavy vehicles	Taxes	283.5	316.6	323.3	340.3	313.9	306.0	311.8
Transport	Duties on heavy goods traffic (up to 2000)	Taxes	184.1	186.1	360.9				
	(after 2000)	Taxes				770.2	882.6	843.2	844.7
	Levy on road use (vignette)	Taxes	286.5	291.3	298.8	306.6	302.1	305.9	307.2

a) Private voluntary solution.
Source: OFS, 2003.

Environment-related taxes

Environment-related taxes (excluding charges), mixed forms[5] and private voluntary solutions[6] totalled CHF 9.06 billion in 2004. In volume, *taxes on energy* produced the most revenues (some CHF 5 billion, or over 50% of tax collected), followed by *taxes on transport* (CHF 3.3 billion, over 36%) and *taxes on resources* (CHF 480 million, about 5.3%). Taxes on emissions are gaining in importance: revenues from these taxes have more than doubled since 1995, representing CHF 267 million (or some 3% of total revenue from environment-related taxes).

Between 1990 and the new decade, the *increase in revenues from environment-related taxes* was greater (87%) than that of the tax revenues of the Confederation, cantons and communes, and social contributions as a whole (53%). This can be explained by the increase in fuel taxes since 1993 and the increase in transport-related revenues.

Environment-related taxes in the strict sense

The increase in revenues from *environment-related taxes strict sense* (such as emissions taxes) has occurred very rapidly, but they represent barely 0.4% of total tax revenues and social contributions. The rapid increase is essentially due to the introduction of the distance/weight-related heavy vehicle fee (HVF) and the tax on volatile organic compounds (VOCs), both instruments having proved to be an incentive.

The *distance/weight-related heavy vehicle fee* (HVF) introduced in 2001 replaces the annual flat rate formerly levied on heavy vehicle traffic. It seeks to internalise

external costs and to finance the cost of rail infrastructure. It applies to vehicles weighing over 3.5 tonnes and averages 2.44 cents/km, based on three criteria (distance travelled in Switzerland, total vehicle weight, emissions). While traffic had been increasing since 1996, a reduction was observed following the introduction of the charge. This fall in traffic coincides with an increase in the weight limit on heavy goods vehicles from 28 to 44 tonnes. This increase resulted not in an increase in the fleet of light goods vehicles, which are exempt from the levy, but an increase in the load factor.

The *tax on VOCs* was introduced in 2000 with the aim of reducing solvent wastes, some of which are carcinogenic or ozone precursors. It was set at CHF 2 per kg in 2002 and raised to CHF 3 in 2003. This tax resulted in the collection of CHF 124 million in 2004. Revenues from the tax are redistributed equally among individuals through the health insurance system, membership in which is compulsory for each inhabitant. VOC wastes subject to the incentive tax (78 400 tonnes in 1998) fell to 51 900 tonnes in 2004.[7]

Towards a green tax reform?

The share of revenues from *environment-related taxes* in the total revenues of the Confederation, cantons and communes, and social contributions, rose from 5.7 to 6.9% between 1990 and 2004. Environment-related taxes, however, are increasing less rapidly in Switzerland than in the European Union. This difference is mainly due to the fact that tax rates on energy are lower in Switzerland, where their share in total taxes and social contributions was 3.8% in 2004.

In 2004, *25%* of revenues from environment-related taxes was paid into the *Confederal State budget*. The remainder was allocated for other purposes (70%), for the environment (3%) or returned (2%). While they represented only 3% of total environment-related taxes in 2004, revenues allocated to environmental protection have more than doubled since 1990, from CHF 148 million to CHF 309 million. At the same time, revenues allocated to other purposes (such as road infrastructure, which received 50% of these revenues in 2004) and those which contribute to the Confederal State budget have risen by 69% and 138%, respectively. Finally, in 2004, the share returned was CHF 175 million.

In the 1998 Environmental Performance Review, the OECD recommended that a *green tax reform* be promoted to favour environmental protection, natural resources and employment. The Federal Council, in the sustainable development strategy 2000, despite rejection by the people of the 2000 energy projects, envisaged re-examining and presenting in a report in 2003 the possibility of strengthening ecological incentives within the tax system, taking into account the possible introduction of a CO_2 tax. This report did not see the light of day, but in 2005 the Federal Council proposed to Parliament that a tax on CO_2 be adopted. *Efforts aimed at introducing green tax reform should continue*, e.g. by introducing an ecological dimension into

the project under discussion on growth and taxes: ZUWACHS (Zukunfts und wachsumsorientiertes Steuersystem für die Schweiz).

3.2 Sectoral subsidies

An exploratory study was carried out to identify and quantify *subsidies potentially damaging to the environment*, but this study was not followed up because of methodological and statistical difficulties. A few tax benefits exist, such as reimbursement of the tax on mineral oils when they are used by farmers, foresters, professional fishermen or even transport companies licensed by the Confederation.

The level of *support to agriculture*, as measured by the Producer Support Estimate (PSE), fell from 78% in 1986-88 to 71% in 2002-04, or twice the OECD average (Chapter 5). Since 1986-88 the gap between domestic and export prices has shrunk considerably, due to progressive replacement of market price support in favour of payments based on area or head of livestock: thus the share of market price support, payments for production and payments for use of inputs fell from 92% of the total PSE in 1986-88 to 66% in 2002-04, a positive trend with regard to the environment.

The introduction of payments to support *organic agriculture* and *animal welfare* is a response to consumer concerns. These payments are subject to compliance with environmental standards and the application of ecological management practices. They are among the forms of subsidy that create the least distortions of production and trade. However, they represent only a small part of total support and are implemented in the context of polices related to production.

5. Expenditure on Protection of the Environment and Financing

Expenditure

Switzerland does not yet have a consolidated account for all expenditure on protection of the environment, in the sense of the accounting framework developed by the OECD and Eurostat.[8] Available data concern *government expenditure on*

environmental protection (waste water management, waste management, protection of the air and noise prevention, environmental research, nature protection – including ecological subsidies paid directly to agriculture) (Table 4.4). This expenditure does not include water supply costs. The level has remained stable in volume since the last review, at around CHF 3.5 billion in current currency or some 0.8% of GDP. Over 50% of this expenditure is associated with waste water management, and 31% relates to waste management (Table 4.5). The communes still bear the highest share of this expenditure (over 65%), while the cantons and the Confederation share the rest equally (over 17% each).

Expenditure by companies was estimated at CHF 2.5 billion in 2003 (68% current expenditure, 32% investment) or about 0.6% of GDP. This represents 1.4% of gross added value from industry, a percentage comparable to that observed in the countries of the European Union. Over 80% of expenditure is allocated to waste management (40%), waste water management (29%) and protection of air and climate (19%). The remaining 12% covers noise prevention, protection of biodiversity, soils, groundwater and the landscape, and R&D expenditure. Despite the decline in investment compared with the first pilot study in 1993, 55% of investment in 2003 concerned clean technology. Among companies, those belonging to the chemical industry spend the most, at more than CHF 5 300 per employee.

Total *public and private expenditure on protection of the environment* can be estimated at around *CHF 5.5 billion (1.4% of GDP)*.[9]

Financing

Financing of expenditure on environmental protection, especially for waste water management and waste management, is increasingly provided from duties (Table 4.4), which *reflects increasing implementation of the polluter pays principle* in these two sectors. Thus, concerning evacuation and treatment of waste water, the share of expenditure by cantons and communes covered by duties rose from 54.4% in 1998 to 68.7% in 2003.

Damage

Despite this progress, *deficits in coverage of the principle of causality (polluter pays and user pays principles) persist* in almost all areas of environmental protection (Ott *et al.*, 2005). While the cost of this external damage could be estimated as at least CHF 8.9 billion, probably only CHF 1.3 billion is internalised, representing a coverage deficit of at least CHF 7.6 billion. Overall, environmental costs not covered vary, depending on estimates, between CHF 9.7 billion and CHF 20.9 billion (Table 4.6).

Table 4.4 **Public expenditure on protection of the environment**[a]

(CHF million)

	1990	1995	1998	1999	2000	2001	2002	2003
Total	2 401.9	3 249.4	3 453.2	3 437.4	3 457.5	3 500.4	3 497.6	3 550.3
By area								
Waste water management[b]	1 503.7	1 769.1	1 908.6	1 853.6	1 784.6	1 790.9	1 771.8	1 793.6
Waste management[c]	671.6	1 070.1	1 018.4	1 028.4	1 071.2	1 082.6	1 088.9	1 089.4
Protection of the air and noise prevention	129.4	188.8	227.0	239.8	232.4	234.0	247.1	287.9
Environmental research	34.3	37.0	35.9	33.5	65.9	62.7	42.6	28.7
Nature protection[d]	62.8	184.4	263.4	282.2	303.4	330.0	347.3	350.6
By administrative level								
Confederation	251.3	439.0	554.1	551.9	558.8	609.7	604.9	603.8
Cantons	578.1	676.8	578.3	654.5	615.2	631.2	592.3	623.7
Communes	1 572.6	2 133.7	2 320.8	2 231.0	2 253.5	2 259.5	2 300.4	2 322.8

a) Gross expenditure after deduction of transfers between public authorities.
b) Elimination of waste water and public toilets.
c) Elimination of waste and animal carcases, excluding household waste incineration plants.
d) Including direct ecological subsidies paid to agriculture since 1993; 202 out of a total of 350.6 in 2003.
Source: OFS.

Table 4.5 **Charges for waste water management and waste management**

(CHF million)

	Cantons		Communes		Total
	Waste water management[a]	Waste management[b]	Waste water management[a]	Waste management[b]	
1990	54.7	14.9	593.4	285.6	948.5
1995	82.7	71.9	809.8	579.2	1 543.5
1998	97.2	78.7	998.7	549	1 723.5
1999	105.3	77.4	999.5	562.2	1 744.4
2000	118.6	90.7	1 002.1	605	1 816.5
2001	112.7	87.6	1 012.1	624.6	1 837
2002	120.3	69.9	1 055.1	621.9	1 867.3
2003	124.7	64.5	1 108.1	614.4	1 911.7

a) Elimination of waste water and public toilets.
b) Elimination of waste and animal carcases, excluding household waste incineration plants.
Source: OFS.

Table 4.6 **Evaluation of environmental damages and external costs**, 2001

(CHF million)

	Expenditure companies/ households/ agr. (without taxes)	Public expenditure	Taxes[a]	Financed by other taxes[b]	Damages		Inter-nalisation[c]	External costs[d]	
					Min.	Max.		Min.	Max.
	A	B	C	D=B–C	E	F	G	H=D+E–G	I=D+F–G
Water protection	681	1 782	1 130	652	391	475	9	1 034	1 119
Soil protection	24	27	2	25	386	454	9	402	469
Waste	530	1 500	1 081	418	0	0	0	418	418
Climate	460	117	9	107	2 495	6 769	413	2 189	6 463
Air protection	1 361	117	14	103	3 260	7 230	519	2 844	6 814
Protection against noise	41	536	23	512	998	1 568	138	1 372	1 942
Nature and landscapes	335	443	128	315	1 323	3 526	221	1 417	3 620
Environmental research	0	63	11	52	0	0	0	52	52
Total	3 432	4 583	2 400	2 184	8 853	20 022	1 308	9 729	20 898

a) Taxes associated to expenditure A of private actors.
b) Public expenditure to be financed by general revenue.
c) Internalised damage.
d) Non-internalised damage, or "external costs".
Source: OFEFP.

Box 4.3 **Further use of economic instruments**

During the review period, Switzerland promoted the use of *economic instruments*. Environmental taxes are widely used at federal level (e.g. taxes on VOCs and extra-light heating oil) and cantonal level (e.g. energy tax in Basel-City). Some examples are provided below.

Instruments already implemented

The *VOCs incentive tax* was introduced in 2000. By increasing the costs of emitting VOCs included in some solvents that harm the environment, the tax aims to provide an incentive to shift to more environmentally friendly substances and technologies. This tax is fiscally neutral, as its revenues are given back to households by reducing the cost of their compulsory health insurance.

An advance disposal charge was introduced in 1996 on *PET bottles, used batteries and metallic boxes* as a private voluntary measure. The Swiss PET recycling association collected CHF 5 cents per bottle; the contribution was reduced to CHF 4 cents in 1999; this charge finances collection, transport, cleaning and recycling of PET bottles (Iten and Pulli, 2001).

Charges are commonly used to cover the costs of a service. Municipalities are responsible for waste management, water supply and sewage treatment, the costs of which should be entirely covered by revenues from these charges. Considerable differences still exist among the waste disposal costs incurred by individual municipalities, owing to different transport costs and other factors. These charging systems seem open to improvements in order to fully apply the polluter pays and user pays principles.

A very innovative *fee has been introduced on heavy vehicles* (HVF) since 2001. This fee is levied on heavy vehicles (more than 3 500 kg) according to weight, pollutant emissions and distances travelled. There are three rates, according to the vehicle's emission category: categories EUR 0 and 1 (2.88 cents), EUR 2 (2.52 cents), EUR 3, 4 and 5 (2.15 cents). The revenues are being used to finance construction of transalpine railway tunnels and to cover external costs in the transport sector (Box 2.1).

At the federal level, a *motor vehicle purchase tax* exists for vehicles not weighing more than 1 600 kg, fixed at 4% of the vehicle's value. In addition, most Swiss cantons have introduced (and revised) a *motor vehicle tax* levied on owners of motor vehicles, which varies according to cylinder volume, function and total weight (EEA-OECD, 2006).

Recent proposals

The *proposed CO_2 tax* is an alternative for businesses that have not committed themselves to reduce CO_2 emissions or to participate in a tradable permits system. A debate is currently taking place on the details of this "carbon tax" (Box 7.1).

The *proposed mineral oil tax* is an incentive tax promoting the use of less polluting fuels in order to reduce CO_2 emissions from traffic. Prices of biogas and other alternative fuels would be reduced while mineral oils would be more highly taxed, compensating for the lack of revenues from "cleaner fuels".

The "*climate cent*" is a voluntary fuel consumption measure designed to meet CO_2 reduction targets in the transport sector, as discussed by the federal government and the business community. The revenues would flow to a fund to finance Swiss mitigation projects. Ultimately, it appears that the impact of the climate cent would be substantially less than that of fuel/CO_2 taxation.

A *system of transferable emission permits* is envisaged by the CO_2 Law. Its purpose is to reduce CO_2 emissions. Companies could commit themselves to trade a certain amount of their CO_2 emissions in order to be exempt from the CO_2 tax. A transferable emission permits system has been established in the Basel-City canton without achieving substantial results, as no exchange of permits has yet taken place (OFEFP, 2002).

7.3 *Economic instruments*

Use of economic instruments has increased significantly in Switzerland in the past ten years (Box 4.3; Table 4.9). The sustainable development strategy 2000 identifies their use as a way to enhance implementation of the polluter pays principle (PPP), to internalise environmental externalities, and to promote efficiency in the mix of instruments used to achieve environmental objectives.

An economic evaluation of the *external environmental costs* incurred in various sectors has been carried out. The highest are for air pollution (e.g. related to health care costs deriving from energy consumption and traffic pollution), climate (e.g. related to energy consumption), nature and landscape protection (e.g. related to traffic, infrastructures and agriculture) and noise (e.g. related to traffic) (Table 4.6).

The main economic instruments currently used in Switzerland are the performance-linked heavy vehicle fee[16] (HVF), incentive taxes (e.g. VOCs tax, tax on sulphur content of extra-light heating oil and fuels), remedial taxes (e.g. landfill tax to finance remediation of contaminated sites), advanced disposal charges (e.g. on batteries and PET bottles), charges for financing public utility services (e.g. municipal waste and sewage taxes) and voluntary contributions (e.g. the proposed climate cent). An increasing amount is *levied by local authorities* through charges for environmental services (e.g. waste management and water services) (Iten and Pulli, 2001).

It is clear that *progress towards implementing the PPP has been made*. Many instruments adopted during the review period go in this direction, including fees for distances driven by heavy vehicles, incentive taxes on VOCs and on the sulphur content of extra-light oil, increased use of charges to cover water sanitation and waste services, the charge on waste disposal for businesses and households, and introduction of an anticipated disposal charge on batteries and glass.

Table 4.9 **Economic instruments**

Instrument	Level		Rates and totals	Notes
Air				
Incentive tax on VOCs	Federal	2000/02	CHF 2/kg (approx. CHF 180 million/year)	Redistribution to households
		from 2003	CHF 3/kg (CHF 124 million in 2004)	Exemptions until end 2008 if emissions are reduced
Incentive tax on extra-light sulphur heating fuel	Federal	from 1999	CHF 12/t if sulphur content > 0.1% (CHF 0.3 million in 2004)	Redistribution to households
Tax on sulphur fuels	Federal	from 2004	CHF 0.03/l if sulphur content > 0.001% (CHF 56 000 in 2004)	Redistribution to households Applies to petrol and diesel
Heavy vehicle fee (HVF)	Federal	2001/04	1.68 cts per tonne-kilometre	On average, the tax varies according to the vehicle's emissions category (EURO classification)
		from 2005	2.44 cts per tonne-kilometre (CHF 845 million in 2004)	
Fee for use of national roads	Federal		CHF 40 per year	Levied on vehicles whose total weight is less than 3.5 tonnes
Leaded/unleaded differential tax	Federal		CHF 0.734/l unleaded CHF 0.814/l leaded	
Aircraft charge (NO_x, VOCs)	Zurich		CHF 119- 3 145/landing (CHF 4.5 million)	
Water				
Waste water charge	Communal		Rates rapidly increasing (over CHF 1 billion in 2003)	No charge on releases to the environment or on abstraction
Noise				
Aircraft landing charge	Geneva Zurich		CHF 100-800/landing	Earmarked revenue
Railway	Federal		CHF 0.01/axle-km	Noise premium on rail prices for improved rolling stock
Waste				
Per-bag tax	Communal		CHF 0.91-2.27/5 kg bag	Finances clean-up and rehabilitation of contaminated sites
Landfill tax	Federal		CHF 30-40 million/year	
Advance disposal charge	Federal		On packaging, batteries, refrigerators, etc.	
Deposit-refund	Private sector		On packaging products	

Source: OFEFP, 2005b; OECD database.

7.7 *Green public procurement and eco-labels*

The government (i.e. the Confederation, cantons, municipalities) purchases goods and services worth about CHF 36 billion per year, more than 10% of national GDP. Switzerland promotes *green public procurement*. The legal basis for green procurement of goods and services is provided by the 1994 federal Law on Public Procurement. In 2000 a survey conducted by the Federal Council showed that: i) measures to reinforce procurement guidelines (outlined in the 1997 sustainable development strategy), had yet to fully take effect; ii) efforts to implement the Federal Resources and Environmental Management Programme needed to be continued; and iii) incentives for green purchasing needed to be considered. The sustainable development strategy 2000 states that this measure is to be pursued and implemented in the course of normal administrative activities.

Led by FOEN, *criteria for public procurement* have been developed and harmonised through collaboration with the two largest associations of public purchasers in Switzerland, the Interest Group for Ecological Purchasing (IGöB) and the Co-ordination Group for Ecological Building (KöB). Training courses for federal purchasers are provided by the Federal Procurement Commission (BKB), enabling sustainable development and life-cycle analysis criteria to be taken into account.

Switzerland regards *eco-labels* as an effective way to promote sustainable consumption. This is one of eight core measures of the 1997 sustainable development strategy. Switzerland has pursued participation in EU eco-labelling. The Interdepartmental Committee Rio (IDC-Rio) insists on the Confederation's role in promoting eco-labels and provides 12 promotion measures to make production and consumption patterns more sustainable. A survey revealed that Swiss industry generally would prefer to adopt *EU eco-labels*. Certain consumer organisations and cantons would, however, welcome a Swiss eco-label in addition to the European ones (CI-Rio, 2000).

1.2 Measures

For over a decade the growth of direct payments as a share of agricultural support[1] has been the *essential element of reform* of agricultural policy and, in particular, the main incentive to achieve environmental objectives. Direct payments account, on average, for 20% of gross farm income and for as much as 35% in upland areas.

In 1998, Switzerland introduced procedures for *cross compliance*, whereby financial support is withdrawn from producers that fail to comply with specific management practices. Farmers must meet six criteria for "required ecological services". The criteria are: i) to achieve a good fertiliser balance; ii) to leave at least 7% of agricultural area in use (excluding mountain pasture) as semi-natural habitat ("ecological compensation areas"[2]); iii) to implement "appropriate" crop rotation (in order to reduce pesticide use, for instance, and improve soil fertility); iv) to ensure that there is minimum plant cover (in order to prevent the risk of soil erosion and farm input leaching); v) to practise limited and targeted use of pesticides; and vi) to rear livestock in accordance with animal welfare-friendly methods. In 2004, 97% of Swiss farms met these criteria.

Ecological payments remunerate services that go beyond the required ecological services scheme and are provided as part of optional programmes. They include additional ecological compensation areas, or ecological compensation areas of higher ecological quality, organic farming[3] and additional animal welfare measures[4] (Table 5.1). Payments are also made to farmers who take additional steps to prevent input leaching.[5]

In 2004, *expenditure on direct payments by FOAG (Federal Office for Agriculture)* was some CHF 2.5 billion, 80% in "general direct payments" and 20% (CHF 0.5 billion) in ecological payments (Table 5.1). Since (and despite) the introduction of cross compliance (which applies to all general direct payments), ecological payments have been steadily increasing as a share of total direct payments (17% in 2000). Ecological payments account for a smaller share of total direct payments in upland areas, where other types of direct payment are becoming increasingly significant, including "payments for rearing livestock under harsh conditions".

Total producer support is still among the highest in the OECD area. The Producer Support Estimate (PSE), which measures transfers as a percentage of gross farm receipts, has remained around 70% for the past ten years (68% in 2004, compared with the OECD average of 30%). The share of market price support and

Table 5.1 **Trends in direct payments,**[a] 2000-04

(CHF 000)

Type of payment	2000	2001	2002	2003	2004
"General direct payments"	1 803 658	1 929 094	1 994 838	1 999 091	1 993 915
– area payments	1 186 770	1 303 881	1 316 183	1 317 956	1 317 773
– livestock rearing on rough fodder	258 505	268 272	283 221	287 692	286 120
– livestock rearing under harsh conditions	251 593	250 255	289 572	287 289	284 023
– sloping land	96 714	96 643	95 811	95 630	95 308
– vineyards on steep slopes and terraces	10 076	10 043	10 051	10 524	10 691
"Ecological direct payments"	361 309	412 664	452 448	476 724	494 695
Ecological payments:	278 981	329 886	359 387	381 319	398 109
– ecological compensation areas	108 130	118 417	122 347	124 927	125 665
– OEQ areas (Ordinance on Ecological Quality)	–	–	8 934	14 638	23 007
– extensive cereal and rapeseed crops	33 398	35 526	31 938	31 255	30 824
– extensive grassland on land set aside	17 150	–	–	–	–
– organic farming	12 185	23 488	25 484	27 135	27 962
– animal welfare-friendly livestock housing	108 118	155 455	170 684	183 363	190 651
Summer grazing payments	81 238	80 524	89 561	91 381	91 066
Water protection payments	1 090	2 254	3 500	4 024	5 521
Deductions	22 542	16 763	21 143	17 138	18 120
Total direct payments	2 142 425	2 324 995	2 426 143	2 458 677	2 470 490

a) These figures are not comparable with national accounts. The figures concerning direct payments refer to a full year of payments, whereas the national accounts show expenditure for the calendar year. Deductions are those based on ceilings and legal and administrative penalties.

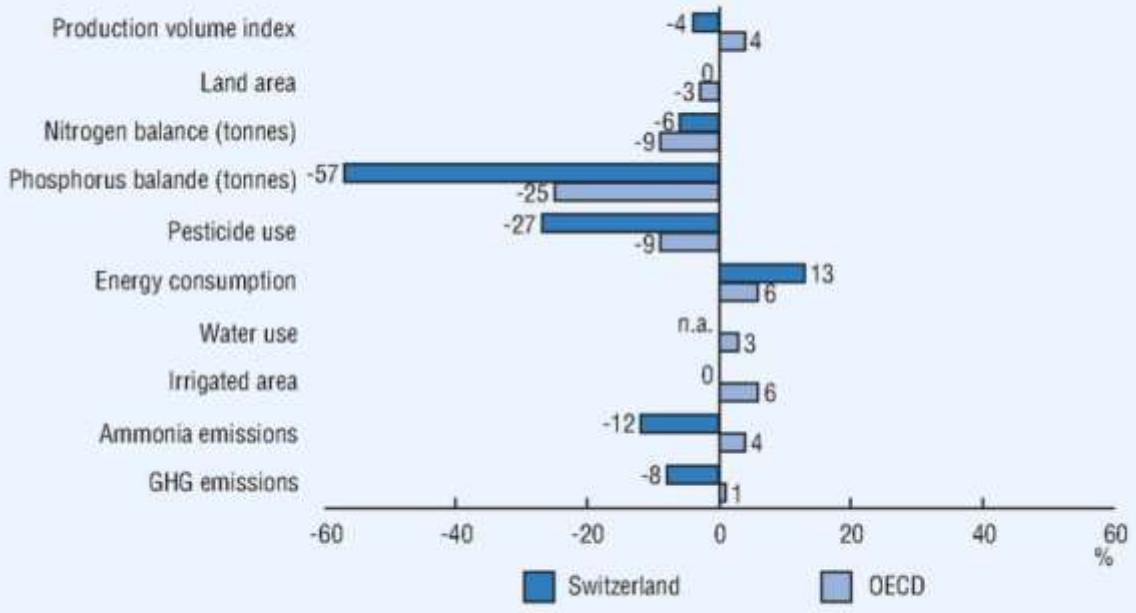
Source: OFAG.

payments based on output or on input use, which was 90% in 1990, fell from 69% in 2000 to 64% in 2004.[6] These forms of support are the most closely coupled to output and therefore put the greatest pressure on the environment.

1.3 Progress and outlook

By and large, Swiss agriculture has made notable progress with regard to management of the environment, against a background of slightly slower activity (Figure 5.1). Some very comprehensive reports assess whether the *environmental objectives in Agricultural Policy 2007* have been achieved (OFAG, annual report). They conclude that most of the objectives for 2005 set by the Federal Council have been met, except in the case of lowland biodiversity and the nitrogen balance (Table 5.2). Some of the objectives in AP 2007 are considered to be "stage targets", as they do not represent the "ecological optimum". Hence the higher targets for ammonia and phosphorus in the draft *Agricultural Policy 2011* (Table 5.3). AP 2011 sets the same objectives as AP 2007 for lowland biodiversity and nitrogen surpluses but with longer time horizons (2009 and 2015, respectively). In late 2005 FOAG and FOEN began working together to define longer-term objectives (2015-20) as possible input for a future agricultural policy programme.

Figure 5.1 **Agri-environmental performances of Switzerland,** 1990-2002[a]



a) Change in per cent from 1990-92 to 2000-02.
Source: OECD, Environmental indicators for agriculture, Volume 4 (in progress); FOEN.

Table 5.2 **Agri-environmental objectives,** up to 2005

Parameter	Unit	Year Base	Year 2005	Objective (%)
Nitrogen balance				1994–2005
Losses[a]	Lost tonnes	96 000	74 000	*–23*
Surpluses	Surplus tonnes[b]	123 000	95 000	*–23*
Ammonia emissions				1990-2005
	Tonnes of nitrogen in NH_3 emissions	53 300	48 500	*–9*
Nitrates				1990-2005
	% of drinking water withdrawal points[c] < 40 mg/l	. .	*90*	. .
Phosphorus balance				1990/92-2005
	Surplus tonnes[b]	~20 000	10 000	*–50*
Pesticide use				1990/92-2005
	Tonnes active ingredients	2 220	1 500	*–30*
Biodiversity				1993-2005
Total	Hectares of ECAs[d]	19 300	108 000	*460*
Lowlands	Hectares of ECAs[d]	5 700	65 000	*104*
Land use				
	Ratio of PER[e] and organic farming to agricultural area in use[a]	*0.9*	*98*	

a) Losses relevant to the environment.
b) Using the OSPAR method.
c) Withdrawal points in drainage basins used by agriculture.
d) Ecological compensation areas.
e) PER: *prestations écologiques requises* (required environmental services).
Source: OFAG, 2006, AP 2007, AP 2011.

Table 5.3 **Agri-environmental objectives of Agricultural Policy 2011**

Parameter	Unit	Year Base	Year Target	Objective (%)
Nitrogen balance				1994-2015
	Surplus tonnes[a]	123 000	95 000	*–23*
Ammonia emissions				1990-2009
	Tonnes of nitrogen in NH_3 emissions	53 300	41 000	*–23*
Phosphorus balance				1990/92-2009
	Surplus tonnes[a]	~20 000	5 000	*–75*
Lowland biodiversity				1993-2009
	Hectares of ECAs[b]	. .	65 000	*104*

a) Using the OSPAR method.
b) Ecological compensation areas.
Source: OFAG, 2006, AP 2011.

Among farmers, the *extent of their participation* in direct ecological payments is a good indicator of their "environmental commitment", in that the programme is optional. Land set aside for "ecological compensation", for example, covers some 100 000 hectares,[7] or about 10% of usable farmland, a figure that exceeds the 7% target set for the ecological services scheme. In upland areas, where ecological payments have a strong financial appeal, the figure is as high as 14%, whereas in the lowlands it is below target at 7%.[8] Some 110 000 ha is given over to *organic farming* on 6 000 holdings (9% of the total), most of which are located in upland areas.

As ecological compensation areas (ECAs) do not always meet environmental standards, an *Ordinance on Ecological Quality* (OEQ)[9] was issued in 2001. It provides for special payments[10] for ECAs of special biological quality and their integration into networks (Box 5.4). In 2004 this programme covered 42 700 hectares

Box 5.4 **Implementing the Ordinance on Ecological Quality in the Intyamon area (canton of Fribourg)**

The Ordinance on Ecological Quality sets out the *basic organic quality requirements* to be met by ecological compensation areas (ECAs). In particular, extensive and low-intensity grassland, as well as litter meadows, should contain a number of indicative plant species. High-branched fruit trees should be in an orchard (of at least ten trees), which should in turn be combined with another ECA. Hedgerows, copses and riparian woodland should be at least 2 metres wide (excluding grass strips) and should be confined to species from the area. The ordinance also prescribes *basic requirements for creating networks of ECAs* to establish biodiversity corridors. Specifically, ECAs should be located along watercourses or next to woodland, or adjoin existing ECAs.

The ordinance is complied with in the *Intyamon area*, where there are some 50 farms. By 2005, 37 farmers had registered ECAs that satisfied the network criteria and accounted for 12% of the surface area. The network has helped to maintain land of little economic but great ecological value (e.g. 74 species of butterfly). Objectives have generally been met for pastures and extensive grassland (most of the network), but not for wetlands and alluvial areas or for high-branched fruit trees and grass strips. Although they comply with mowing restrictions to protect certain species of birds, farmers have not been persuaded to locate ECAs in the lowlands on high-yield farmland.

Farming in the Intyamon reflects agricultural trends in Switzerland (and elsewhere in Europe) in that the farmers are adopting more intensive methods in the lowlands, which are easily accessible and easy to farm, but neglecting marginal land where woodland is encroaching. The network project is an attempt to respond to this, as: i) the sides of the valley provide very valuable habitats for insects, reptiles and some birds, together with substantial meadows and pastures of national importance; and ii) the valley floor is a nesting area for the whinchat (on the Red List of endangered species). Educational activities, targeting all sections of the population, include paths with information panels, organised talks and press releases. Special studies are being conducted on the whinchat.

and 20 000 farms (30% of the total). The draft *Agricultural Policy 2011* proposes an increase in direct payments for OEQ areas, to the detriment of other land of a poorer environmental standard. There are also plans to simplify the required environmental services scheme, without reducing the current level of service provision, and to step up controls.[11] It is expected that these measures, combined with the fall in controlled farm gate prices, will lead to a sharp increase in ECAs.

The most innovative feature of AP 2011, with regard to the environment, is a new programme to promote "sustainable resource use" which recommends a *project approach* that is more targeted (to specific areas or sectors) and more integrated than current measures (it would address environmental management as a whole). The idea is to promote environment friendly innovations[12] at a certain (e.g. regional) level by offering start-up support. This programme would supplement current measures and would be optional, based on an agreement between the Confederation and both private and public bodies, and between these bodies and farmers. Studies are under way on a possible framework for such projects, e.g. in the potato sector. Projects would be limited to six years.

Landscape maintenance and decentralised settlement patterns are two of Switzerland's agricultural policy objectives. *In the absence of specific indicators*, however, it is difficult to judge whether the landscape maintenance objective has been met. Over the past few decades, both usable farmland and Alpine areas have been shrinking at a rate of 3% per year (the sharpest decline has been on the southern slopes of the Alps), while built-up areas and woodland have expanded by 13.3% and 1.4% per year, respectively. However, the encroachment of woodland on usable farmland appears to have slowed substantially in recent years. Alpine areas are continuing to shrink (Chapter 3).

Ecological payments contribute to the maintenance of typical features of the Swiss landscape, such as summer pastures and ecological compensation areas (ECAs). Summer grazing payments have been an integral part of Swiss agricultural policy for many years (Table 5.1). Ecological compensation measures were introduced in 1992. There are 3 million fruit trees in Switzerland. Not only are they a fundamental part of the landscape, but they are particularly important to wild bird habitats and entitle farmers to ecological payments.

5.2 *Organic agriculture and quality labels*

The legal framework is provided by the *1997 Ordinance on Organic Farming and the Designation of Organic Products and Foodstuffs*. It is based on the principle of whole farm approaches, which requires closed cycles where possible. In particular, it bans auxiliary materials, and synthetic chemical and irradiated ingredients, and imposes requirements concerning animal rearing. The value of the market for organic products has more than doubled since 1997, amounting to CHF 1 200 billion in 2004. But this figure corresponds to no more than *approximately 4% of the total food market* and growth has been slowing in recent years.

Awarding labels

In Switzerland, *organic inspection and certification* are carried out by private bodies. These are accredited every five years, based on the requirements of standards EN45011/ISO65, by the Swiss Accreditation Service (SAS), which reports to the State Secretariat for Economic Affairs. The SAS supervises the work of the certification bodies on an annual basis, in conjunction with FOAG.

Some organic products are marketed by a private organisation, Bio Suisse, established in 1981, which awards its own "bud" label. This label has been attributed to some 6 400 organic farms (representing around *10% of all Swiss farm enterprises and usable farmland)* and some 800 licensed agro-food and other companies. The specifications are based on the principle of integration and the requirements laid down by the ordinance on organic farming.

Major distributors have their own organic programmes and labels. The programmes must comply with the ordinance on organic farming. For one such distributor, Migros, the "Bio" organic label is one of eight under the umbrella label

"Commitment". The others designate, for example, Swiss meat produced to animal welfare specifications, or "IP-Suisse" products. Another distributor, Coop, awards the "Naturaplan" label, which covers two distinct product lines: organic products produced in accordance with the integration requirement and marketed under the dual label "Naturaplan" and "Bio-Suisse", and animal welfare-friendly meat and eggs that carry only the "Naturaplan" label. Generally speaking, the main organic agriculture sectors are fruit, vegetables and dairy products. While 80% of Swiss meat is sold under various quality labels, very little is sold as "bio" (organic). The two major distributors have also developed lines of regional products, some of which are organic. Ecological considerations, particularly *shorter transport distances, have been a factor.*

Labelling schemes are therefore *fairly complex* but are always based on environmental and animal welfare-related goals. Directives and implementation are transparent, and certification is usually by independent bodies. As for organic agriculture, it is clearly defined by the ordinance on organic farming and the very widespread use of the "bud" label.

Quality labels and international trade

Ecological labels could, however, present an *obstacle to agricultural trade*. The Codex Alimentarius guidelines for the production, processing, labelling and marketing of organically produced foods[33] are a sound basis for quality labelling, as they introduce the principle of equivalence among countries.

3. Environment and Employment

After reaching a historic high level in 1997 (4.2%), *unemployment* in Switzerland fell to 2.6% in 2001. It has risen since (4.4% in 2004) (Box 6.1). Unemployment is comparatively high among unskilled workers and foreigners. No environmental policy programmes explicitly aim to provide new jobs, nor is there any *plan to integrate environmental and employment policies*. Switzerland tries to create new jobs through: i) a growth policy with a long-term perspective; ii) a labour market and educational policy which aim to optimise the matching process between labour demand and supply.

Some studies indicate that *environmental measures generate both employment and economic development*. Recently 61 000 persons (1.9% of the total number employed) worked full-time in the environmental protection field, producing CHF 6.7 billion of GDP (1.6% of total GDP) (OFEFP, 2005b). Exports by environmental technology companies amount to CHF 1.4 billion, providing employment to an additional 12 500 people. It has been shown that if this CHF 6.7 billion were devoted to economic sectors other than the environment, GDP would not be higher and employment would

fall by approximately 0.4% (13 000 fewer full-time jobs). There is a strong annual increase in the environmental market and strong potential for growth in a number of environmental activities (WWF, 2005). The strongest growth is expected in the natural resources market, with the objective of sustainable use of natural resources according to well-defined environmental standards.

4. Trade and Environment

Switzerland works with the governments of other countries to ensure the *implementation of laws regulating the import and export of substances* that are harmful to human health and the environment, particularly hazardous wastes, toxic chemical products and ozone-depleting substances (ODS). It works towards specific objectives in WTO negotiations with the aim of ensuring that environmental concerns are taken into account. One of Switzerland's priorities, during the Doha round of negotiations, has been to ensure that there is *no hierarchy between WTO agreements and MEAs* that favours trade at the expense of the environment. Another priority has been to establish a list of environmental products in order to reduce or eliminate tariffs and non-tariff obstacles to trade. Switzerland also promotes recycling, ecolabelling, and norms and technical standards for environmental products.

4.4 Endangered species

Switzerland is in compliance with the Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (*CITES*). Over 72 000 CITES licences were issued in Switzerland in 2004, twice the number issued five years earlier (some 10% of all CITES licences worldwide are issued to Swiss entities). A further increase is expected in the next few years. Shipments of watch straps (made of leather from reptiles such as alligators, spectacled caimans or Nile crocodiles) account for over 90% of the licences issued. Customs officials and staff of the Swiss Federal Veterinary Office (SFVO), which is responsible for CITES implementation, receive regular training and co-operate with FOEN on a regular basis (OVF, 2005). FOEN is not involved in addressing scientific or policy issues related to CITES.

4.5 Forestry

Switzerland is actively involved in promoting sustainable forestry management at the national (certification programmes) and international levels through processes such

as the United Nations Forestry Forum (UNFF) and the Ministerial Conference on the Protection of Forests in Europe (MCPFE). It supports the activities of the United Nations Food and Agriculture Organisation (FAO), the United Nations Economic Commission for Europe (UNECE) and the International Tropical Timber Organization (ITTO). It is also actively involved in forestry discussions under the Convention on Biological Diversity and the Framework Convention on Climate Change.

Environmental co-operation with Central and Eastern Europe and within the Pan-European process

Switzerland takes part in the *Environment for Europe (EfE)* process, particularly through contributions to the work of the EAP Task Force and to UNECE environmental activities. Swiss priorities for funding in the EECCA region (Eastern Europe, the Caucasus and Central Asia) include water resource management and water sector reform (Central Asia), environmental infrastructure, sustainable mountain development, capacity building of government organisations and NGOs related to MEAs, chemical management, biodiversity conservation, access and benefit sharing, and rational exploitation of biodiversity products (certification, market access). Within the EECCA region, Switzerland focuses mainly on the South Caucasus, Central Asia and Ukraine. As defined by the Swiss Agency for Development and Co-operation (SDC), priority in South-East Europe is given to Albania, Bosnia and Herzegovina, Bulgaria, Kosovo, Macedonia, Montenegro, Romania and Serbia.

SDC reports that the *amount spent on energy and environment* in 2003 was CHF 5.5 million (South-East European countries) and CHF 9.7 million (EECCA countries). FOEN reports that assistance to the EfE process and to EECCA countries was CHF 1 million in 2003 and CHF 0.9 million in 2004.

6. Official Development Assistance (ODA)

ODA as a percentage of GNI was 0.41% in 2004 (CHF 1.92 billion) and 0.44% in 2005 (CHF 2.21 billion) (Figure 7.2).[8] These percentages, *higher than the OECD-DAC average*, reflect Switzerland's commitment to bring its ODA levels to 0.4% in 2010. They remain below the UN target of 0.7%. The increase is partly due to a policy decision to include assistance to asylum-seekers during their first year in the host country, thus making full use of OECD-DAC reporting rules. Under the reporting scheme before 2004, Switzerland's ODA had been stable at about 0.34% over the previous decade. By region, Sub-Saharan Africa receives nearly 40% of total ODA, followed by South and Central Asia (22%) and Latin America and the Caribbean (13%) (Table 7.3).

Several government bodies, most importantly SDC, FOEN and SECO, are responsible for *development assistance related to environmental protection*. SDC is primarily responsible for bilateral assistance (traditional ODA); FOEN provides funding for contributions to international environmental organisations (except UNEP) and other types of multilateral assistance; and SECO is responsible for ODA in the area of economic development. In particular, SECO encourages transferable innovations and was one of the first bodies to finance National Strategy Studies concerning use of the Kyoto Protocol flexible mechanisms, to promote Biotrade,[9] to support the creation of Cleaner Production Centres[10] in developing countries, and to encourage fair trade (cotton, coffee, soya) and open trade in tropical timber based on sustainable resource management.

Official data provided by Switzerland to OECD-DAC show that the amount of bilateral assistance related to general environmental protection in 2004 was CHF 61 million. SAEFL reported that its 2004 ODA expenditures (all environmentally related) were CHF 39.4 million. Some CHF 250-300 million per year, collected by the *NGO/private sector* (e.g. the Swiss Alliance of Development Organizations), has also been invested, mostly in activities with strong environmental relevance.

7.3 Multinational guidelines

Switzerland shares the view that *increasing the volume of FDI* in developing countries is crucial if the MDGs are to be met. It supports international initiatives including the OECD Guidelines for Multinational Enterprises, the UN Global Compact and the ILO Declaration of Principles concerning Multinational Enterprises and Social Policy. These initiatives provide a framework for business enterprises with respect to human rights and social and environmental standards. SECO's division for foreign investment and multinational enterprises is responsible for compliance with the OECD Guidelines by Swiss companies operating in other countries. A number of Swiss companies participate in the Global Compact. A member of the OECD *Export Credit Group*, Switzerland follows the OECD Recommendation on Common Approaches on Environment and Officially Supported Export Credits.

Switzerland is a major base country for FDI, ranking *ninth in the world* in 2004[11] (CNUCED, 2005). Developed countries are the main destination for outward FDI. However, the share received by developing countries (especially in Central and Eastern Europe) has increased in recent years. Between 2001 and 2003, Swiss companies invested an average USD 725 million per year in developing countries. There are no data concerning the amount of FDI invested in environmentally related projects or the share of investments that could be classified as environmentally related.