

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Switzerland
1998
Submission 2000







GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄	N ₂ O	NO _x	CO	NMVOC	SO ₂
	(Gg)						
Total Energy	41'211.35	18.43	2.25	99.05	418.55	58.09	21.95
A. Fuel Combustion Activities (Sectoral Approach)	41'138.35	5.95	2.25	98.90	418.52	50.87	21.95
1. Energy Industries	1'423.10	0.08	0.01	1.46	0.29	0.06	1.74
a. Public Electricity and Heat Production	773.55	0.06	0.00	0.80	0.14	0.03	0.81
b. Petroleum Refining	649.55	0.02	0.00	0.66	0.16	0.02	0.93
c. Manufacture of Solid Fuels and Other Energy Industries	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Manufacturing Industries and Construction	4'893.30	0.43	0.03	9.64	16.38	0.45	4.90
a. Iron and Steel	82.60	0.01	0.00	0.13	1.84	0.00	0.22
b. Non-Ferrous Metals	0.00	0.00	0.00				
c. Chemicals	0.00	0.00	0.00				
d. Pulp, Paper and Print	0.00	0.00	0.00				
e. Food Processing, Beverages and Tobacco	0.00	0.00	0.00				
f. Other (<i>please specify</i>) 	4'810.70	0.43	0.03	9.50	14.54	0.44	4.69
Industrial combustion (Sum of 2.b, 2.c, 2.d, 2.e)				9.50	14.54	0.44	4.69
3. Transport	14'690.00	2.46	2.01	59.76	264.38	35.95	2.18
a. Civil Aviation	255.00	0.05	0.00	1.38	1.23	0.05	0.06
b. Road Transportation	14'335.00	2.34	2.01	57.23	260.10	34.88	2.04
c. Railways	28.00	0.00	0.00	0.49	0.11	0.05	0.01
d. Navigation	72.00	0.07	0.00	0.67	2.94	0.97	0.07
e. Other Transportation (<i>please specify</i>) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄	N ₂ O	NO _x	CO	NMVOC	SO ₂
	(Gg)						
4. Other Sectors	19'400.95	2.62	0.18	20.18	85.17	7.34	12.94
a. Commercial/Institutional	6'647.05	0.81	0.06	4.94	14.22	0.65	4.59
b. Residential	12'076.20	1.54	0.10	7.50	28.30	1.20	8.13
c. Agriculture/Forestry/Fisheries	677.70	0.26	0.02	7.74	42.65	5.48	0.23
5. Other (please specify) ⁽¹⁾	731.00	0.36	0.03	7.87	52.30	7.07	0.19
a. Stationary/Mobile 	0.00	0.00	0.00	7.87	52.30	7.07	0.19
b. Mobile (included under a) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive Emissions from Fuels	73.00	12.48	0.00	0.15	0.03	7.22	0.00
1. Solid Fuels	0.00	0.00	0.00	0.00	0.00	0.00	0.00
a. Coal Mining	0.00	0.00	0.00	0.00	0.00	0.00	
b. Solid Fuel Transformation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c. Other (please specify) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Oil and Natural Gas	73.00	12.48	0.00	0.15	0.03	7.22	0.00
a. Oil	0.00	0.23		0.00	0.00	5.90	0.00
b. Natural Gas	31.00	12.20		0.146	0.028	1.22	0.00
c. Venting and Flaring	42.00	0.05	0.00	0.00	0.00	0.10	0.00
Venting							
Flaring							
d. Other (please specify) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Memo Items: ⁽²⁾							
International Bunkers	4'231.00	0.00	0.00	0.00	0.00	0.00	0.00
Aviation	4'231.00	0.00	0.00				
Marine	0.00	0.00	0.00				
Multilateral Operations	0.00	0.00	0.00				
CO₂ Emissions from Biomass (only fuel combustion)	1'926.00						

⁽¹⁾ Include military fuel use under this category.

⁽²⁾ Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS ⁽²⁾			EMISSIONS		
	Consumption		CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
I.A. Fuel Combustion	603'360.00	NCV				41'138.35	5.95	2.25
Liquid Fuels	428'445.00	NCV	73.83	5.69	4.48	31'631.15	2.44	1.92
Solid Fuels	1'191.00	NCV	94.04	46.15	1.03	112.00	0.05	0.00
Gaseous Fuels	104'399.00	NCV	55.38	6.42	0.10	5'781.20	0.67	0.01
Biomass	20'930.00	NCV	92.02	88.07	1.60 ⁽³⁾	1'926.00	1.84	0.03
Other Fuels	48'395.00	NCV	74.68	19.57	5.96	3'614.00	0.95	0.29
I.A.1. Energy Industries	22'558.00	NCV				1'423.10	0.08	0.01
Liquid Fuels	6'648.00	NCV	76.56	3.34	0.74	508.95	0.02	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Gaseous Fuels	15'910.00	NCV	57.46	3.89	0.10	914.15	0.06	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
a. Public Electricity and Heat Production	12'030.00	NCV				773.55	0.06	0.00
Liquid Fuels	5'220.00	NCV	76.44	3.56	0.79	399.00	0.02	0.00
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels	6'810.00	NCV	55.00	6.02	0.10	374.55	0.04	0.00
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels		NCV	0.00	0.00	0.00			
b. Petroleum Refining	10'528.00	NCV				649.55	0.02	0.00
Liquid Fuels	1'428.00	NCV	77.00	2.52	0.58	109.95	0.00	0.00
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels	9'100.00	NCV	59.30	2.30	0.10	539.60	0.02	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels		NCV	0.00	0.00	0.00			
c. Manufacture of Solid Fuels and Other Energy Industries	0.00	NCV				0.00	0.00	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels		NCV	0.00	0.00	0.00			
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			

⁽¹⁾ Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

⁽²⁾ Accurate estimation of CH₄ and N₂O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

⁽³⁾ Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, solid, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Switzerland
1998
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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS ⁽²⁾			EMISSIONS		
	Consumption		CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	81'129.00	NCV				4'893.30	0.43	0.03
Liquid Fuels	19'458.00	NCV	74.47	1.80	0.67	1'449.00	0.04	0.01
Solid Fuels	1'041.00	NCV	94.00	9.57	0.95	97.85	0.01	0.00
Gaseous Fuels	35'679.00	NCV	55.00	5.90	0.10	1'962.45	0.21	0.00
Biomass	6'750.00	NCV	92.00	21.00	1.60 ⁽³⁾	621.00	0.14	0.01
Other Fuels	18'201.00	NCV	76.04	1.87	0.22	1'384.00	0.03	0.00
a. Iron and Steel	1'200.00	NCV				82.60	0.01	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels	425.00	NCV	94.00	10.40	0.00	39.95	0.00	0.00
Gaseous Fuels	775.00	NCV	55.03	1.68	0.10	42.65	0.00	0.00
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			
b. Non-Ferrous Metals	0.00	NCV				0.00	0.00	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels		NCV	0.00	0.00	0.00			
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			
c. Chemicals	0.00	NCV				0.00	0.00	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels		NCV	0.00	0.00	0.00			
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			
d. Pulp, Paper and Print	0.00	NCV				0.00	0.00	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels		NCV	0.00	0.00	0.00			
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			
e. Food Processing, Beverages and Tobacco	0.00	NCV				0.00	0.00	0.00
Liquid Fuels		NCV	0.00	0.00	0.00			
Solid Fuels		NCV	0.00	0.00	0.00			
Gaseous Fuels		NCV	0.00	0.00	0.00			
Biomass		NCV	0.00	0.00	0.00 ⁽³⁾			
Other Fuels		NCV	0.00	0.00	0.00			
f. Other (please specify)	79'929.00	NCV				4'810.70	0.43	0.03
Liquid Fuels	19'458.00	NCV	74.47	1.80	0.67	1'449.00	0.04	0.01
Solid Fuels	616.00	NCV	93.99	9.00	1.60	57.90	0.01	0.00
Gaseous Fuels	34'904.00	NCV	55.00	6.00	0.10	1'919.80	0.21	0.00
Biomass	6'750.00	NCV	92.00	21.00	1.60 ⁽³⁾	621.00	0.14	0.01
Other Fuels (Fuel Mix; production of cement, lime, glass)	18'201.00	NCV	76.04	1.87	0.22	1'384.00	0.03	0.00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Switzerland
1998
Submission 2000




GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS ⁽²⁾			EMISSIONS		
	Consumption		CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.3 Transport	198'956.00	NCV				14'690.00	2.46	2.01
Gasoline	140'877.00	NCV	73.89	14.25	11.67	10'409.00	2.01	1.64
Diesel	45'585.00	NCV	73.60	3.40	2.83	3'355.00	0.15	0.13
Natural Gas	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels	12'494.00	NCV	74.12	23.60	18.85	926.00	0.29	0.24
a. Civil Aviation	3'483.00	NCV				255.00	0.05	0.00
Aviation Gasoline	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Jet Kerosene	3'483.00	NCV	73.21	14.07	0.00	255.00	0.05	0.00
b. Road Transportation	194'115.00	NCV				14'335.00	2.34	2.01
Gasoline (model)	137'394.00	NCV	73.90	14.25	11.96	10'154.00	1.96	1.64
Diesel Oil (model)	44'227.00	NCV	73.60	1.89	2.85	3'255.00	0.08	0.13
Natural Gas	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels (please specify) 	12'494.00	NCV				926.00	0.29	0.24
Fuel tourism gasoline	21'950.00	NCV	73.90	14.25	11.96	1'622.00	0.31	0.26
Fuel tourism diesel oil	-9'456.00	NCV	73.60	1.89	2.85	-696.00	-0.02	-0.03
		NCV	0.00	0.00	0.00			
c. Railways	385.00	NCV				28.00	0.00	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Liquid Fuels	385.00	NCV	72.73	2.60	2.60	28.00	0.00	0.00
Other Fuels (please specify) 	0.00	NCV				0.00	0.00	0.00
		NCV	0.00	0.00	0.00			
d. Navigation	973.00	NCV				72.00	0.07	0.00
Coal	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Residual Oil	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Gas/Diesel Oil	973.00	NCV	74.00	71.94	2.06	72.00	0.07	0.00
Other Fuels (please specify) 	0.00	NCV				0.00	0.00	0.00
		NCV						
e. Other Transportation	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Liquid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Gaseous Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS ⁽²⁾			EMISSIONS		
	Consumption		CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	290'795.00	NCV				19'400.95	2.62	0.18
Liquid Fuels	215'877.00	NCV	73.70	1.01	0.60	15'909.20	0.22	0.13
Solid Fuels	150.00	NCV	94.33	300.00	1.60	14.15	0.05	0.00
Gaseous Fuels	52'810.00	NCV	55.00	7.53	0.10	2'904.60	0.40	0.01
Biomass	14'180.00	NCV	92.03	120.00	1.60 ⁽³⁾	1'305.00	1.70	0.02
Other Fuels	7'778.00	NCV	73.67	33.17	2.83	573.00	0.26	0.02
a. Commercial/Institutional	99'120.00	NCV				6'647.05	0.81	0.06
Liquid Fuels	77'930.00	NCV	73.69	1.00	0.60	5'743.00	0.08	0.05
Solid Fuels	10.00	NCV	95.00	300.00	1.60	0.95	0.00	0.00
Gaseous Fuels	16'420.00	NCV	55.00	9.87	0.10	903.10	0.16	0.00
Biomass	4'760.00	NCV	92.02	120.00	1.60 ⁽³⁾	438.00	0.57	0.01
Other Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
b. Residential	182'400.00	NCV				12'076.20	1.54	0.10
Liquid Fuels	136'750.00	NCV	73.70	1.00	0.60	10'078.00	0.14	0.08
Solid Fuels	140.00	NCV	94.29	300.00	1.60	13.20	0.04	0.00
Gaseous Fuels	36'090.00	NCV	55.00	6.51	0.10	1'985.00	0.24	0.00
Biomass	9'420.00	NCV	92.04	120.00	1.60 ⁽³⁾	867.00	1.13	0.02
Other Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
c. Agriculture/Forestry/Fisheries	9'275.00	NCV				677.70	0.26	0.02
Liquid Fuels	1'197.00	NCV	73.68	2.00	0.60	88.20	0.00	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Gaseous Fuels	300.00	NCV	55.00	2.00	0.10	16.50	0.00	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels (Gasoline, diesel)	7'778.00	NCV	73.67	33.17	2.83	573.00	0.26	0.02
1.A.5 Other (Not elsewhere specified) ⁽⁴⁾	9'922.00	NCV				731.00	0.36	0.03
Liquid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Solid Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Gaseous Fuels	0.00	NCV	0.00	0.00	0.00	0.00	0.00	0.00
Biomass	0.00	NCV	0.00	0.00	0.00 ⁽³⁾	0.00	0.00	0.00
Other Fuels (Off road; gasoline, diesel)	9'922.00	NCV	73.67	36.28	2.72	731.00	0.36	0.03

⁽⁴⁾ Include military fuel use under this category.

Documentation Box:
1.A.1: Since the main purpose of waste incineration is eliminating the waste, all waste incineration plants are considered in table 6.
1.A.2: The consumption of the combustion installations in the industry sector is only available as aggregated sum (by fuel) and is reported under 1.A.2.f. The industry statistics in Switzerland are rather poor. so the consumption in this sector is the calculated difference (by fuel) between apparent consumption and the consumption of the other sectors. The Swiss industry statistics will be improved 2001 or 2002.
1.A.3: Consumption of aviation gasoline in civil aviation is negligible (< 0.5% of the total aviation consumption) and is treated as jet kerosene.
1.A.3: Fuel tourism is the difference between the apparent consumption and the consumption calculated with the road transportation model. This difference (reported as fuel tourism) results of a significant price difference between Switzerland and the surrounding countries (gasoline being cheaper and diesel fuel being more expensive). The net effect of this price difference is an export of gasoline sold in Switzerland.

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO₂ from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor ⁽¹⁾	⁽¹⁾	Apparent consumption	Carbon emission factor	Carbon content	Carbon stored	Net carbon emissions	Fraction of carbon oxidized	Actual CO ₂ emissions
					(t)	(t)	(t)	(t)	(t)	(TJ/t)		(TJ)	(t C/TJ)	(Gg C)	(Gg C)	(Gg C)		(Gg CO ₂)
Liquid Fossil	Primary Fuels	Crude Oil							0.00		NCV	0.00		0.00		0.00		0.00
		Orimulsion							0.00		NCV	0.00		0.00		0.00		0.00
		Natural Gas Liquids							0.00		NCV	0.00		0.00		0.00		0.00
	Secondary Fuels	Gasoline			3'828.00	0.00	0.00	-23.00	3'851.00	44.80	NCV	172'524.80	18.90	3'260.72	0.00	3'260.72	1.00	11'955.97
		Jet Kerosene			1'451.00	0.00	1'344.00	26.00	81.00	44.60	NCV	3'612.60	19.50	70.45		70.45	1.00	258.30
		Other Kerosene				0.00	0.00	0.00	0.00	44.60	NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Shale Oil				0.00	0.00	0.00	0.00		NCV	0.00		0.00		0.00	1.00	0.00
		Gas / Diesel Oil			6'621.00	22.00	0.00	91.00	6'508.00	43.30	NCV	281'796.40	20.20	5'692.29	0.00	5'692.29	1.00	20'871.72
		Residual Fuel Oil			710.00	396.00	0.00	-72.00	386.00	40.20	NCV	15'517.20	21.10	327.41	0.00	327.41	1.00	1'200.51
		LPG			134.00	0.00		0.00	134.00	47.30	NCV	6'338.20	17.20	109.02	0.00	109.02	1.00	399.73
		Ethane				0.00	0.00		0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Naphtha				0.00	0.00		0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Bitumen				0.00	0.00		0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Lubricants				0.00	0.00	0.00	0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Petroleum Coke			51.00	0.00		0.00	51.00	31.00	NCV	1'581.00	27.50	43.48	0.00	43.48	1.00	159.42
		Refinery Feedstocks				0.00	0.00		0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Other Oil							0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
Liquid Fossil Totals											481'370.20		9'503.36	0.00	9'503.36		34'845.65	
Solid Fossil	Primary Fuels	Anthracite ⁽²⁾							0.00		NCV	0.00		0.00		0.00		0.00
		Coking Coal			22.00	0.00		0.00	22.00	28.10	NCV	618.20	25.80	15.95	0.00	15.95	1.00	58.48
		Other Bit. Coal			109.00	0.00	0.00	0.00	109.00	28.10	NCV	3'062.90	25.80	79.02	0.00	79.02	1.00	289.75
		Sub-bit. Coal							0.00		NCV	0.00		0.00		0.00		0.00
		Lignite			6.00	0.00		0.00	6.00	20.10	NCV	120.60	27.80	3.35	0.00	3.35	1.00	12.29
		Oil Shale							0.00		NCV	0.00		0.00		0.00		0.00
		Peat							0.00		NCV	0.00		0.00		0.00		0.00
	Secondary Fuels	BKB & Patent Fuel							0.00		NCV	0.00		0.00		0.00		0.00
		Coke Oven/Gas Coke							0.00		NCV	0.00		0.00		0.00		0.00
Solid Fuel Totals											3'801.70		98.33	0.00	98.33		360.53	
Gaseous Fossil		Natural Gas (Dry)							0.00		NCV	108'171.00	15.30	1'655.02	0.00	1'655.02	1.00	6'068.39
Total												593'342.90		11'256.70	0.00	11'256.70		41'274.57
Biomass total												0.00		0.00	0.00	0.00		0.00
		Solid Biomass							0.00		NCV	0.00		0.00		0.00		0.00
		Liquid Biomass							0.00		NCV	0.00		0.00		0.00		0.00
		Gas Biomass							0.00		NCV	0.00		0.00		0.00		0.00

⁽¹⁾ To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

⁽²⁾ If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO₂ EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Switzerland

1998

Submission 2000

FUEL TYPES	Reference approach		National approach ⁽¹⁾		Difference ⁽²⁾	
	Energy consumption (PJ)	CO ₂ emissions (Gg)	Energy consumption (PJ)	CO ₂ emissions (Gg)	Energy consumption (%)	CO ₂ emissions (%)
Liquid Fuels (excluding international bunkers)	481.37	34'845.65	428.45	31'631.15	12.35	10.16
Solid Fuels (excluding international bunkers)	3.80	360.53	1.19	112.00	219.20	221.90
Gaseous Fuels	108.17	6'068.39	104.40	5'781.20	3.61	4.97
Other ⁽³⁾			48.40	3'614.00	-100.00	-100.00
Total ⁽³⁾	593.34	41'274.57	582.43	41'138.35	1.87	0.33

⁽¹⁾ "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO₂ emissions from fuel combustion reported in the national GHG inventory.

⁽²⁾ Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

⁽³⁾ Emissions from biomass are not included.

Note: In addition to estimating CO₂ emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1 (Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box: to table above

"Other" in the National approach: including liquid fuels, gaseous fuels, solid fuels from the cement, lime, glass sector (1A 2f) and gasoline and diesel from the off road sector 1A 5 (Other) . Fuel tourism is also listed in this category due to national circumstances (see documentation box 1.A.(a)s4 and table 1.A.(a)s3).

Differences in energy consumption: different conversion factors in the Reference approach and National approach and allocation problems (see comments to "Other" above).

Documentation Box: to table 1.A(b)

Liquid fossil primary fuels (Table 1.A(b): not calculated. Instead, the CO₂-emissions of the processing from primary fuels to secondary fuels in the refineries is calculated by taking into account the residual fuel and the gas burnt in the refineries.

Bitumen consumption has to be set to zero, because this consumption appears in the CORINAIR (National) approach in the sector 2 (Industrial processes, asphalt concrete) and not in sector 1 (Energy).

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

FUEL TYPE ⁽¹⁾	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha ⁽²⁾			0.00	
Lubricants			0.00	
Bitumen	11'135.40	1.00	22.00	244.98
Coal Oils and Tars (from Coking Coal)			0.00	
Natural Gas ⁽²⁾			0.00	
Gas/Diesel Oil ⁽²⁾			0.00	
LPG ⁽²⁾			0.00	
Butane ⁽²⁾			0.00	
Ethane ⁽²⁾			0.00	
Other (please specify) <input type="text"/>				
			0.00	

⁽¹⁾ Where fuels are used in different industries, please enter in different rows.

⁽²⁾ Enter these fuels when they are used as feedstocks.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO ₂ emissions (Gg)	Allocated under <input type="text"/> ^(a) e.g. Industrial Processes, Waste (Specify source category) ^(a)
	Incineration, etc.
With the CORINAIR-approach feedstocks are included in sectors 2 (Industrial processes), 3 (Solvent use), 6 (Waste).	


Additional information ^(a)

CO ₂ not emitted (Gg CO ₂)	Subtracted from energy sector (specify source category)
0.00	
0.00	
898.26	see documentation box
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	

^(a) The fuel lines continue from the table to the left.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced ⁽¹⁾	CH ₄	CO ₂	CH ₄	CO ₂
	(Mt)	(kg/t)	(kg/t)	(Gg)	(Gg)
1. B. 1. a. Coal Mining and Handling	0.00			0.00	0.00
i. Underground Mines ⁽²⁾	0.00	0.00	0.00	0.00	0.00
Mining Activities		0.00	0.00	0.00	0.00
Post-Mining Activities		0.00	0.00	0.00	0.00
ii. Surface Mines ⁽²⁾	0.00	0.00	0.00	0.00	0.00
Mining Activities		0.00	0.00	0.00	0.00
Post-Mining Activities		0.00	0.00	0.00	0.00
1. B. 1. b. Solid Fuel Transformation	0.00	0.00	0.00	0.00	0.00
1. B. 1. c. Other (please specify) ⁽³⁾ 				0.00	0.00
		0.00	0.00		

⁽¹⁾ Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

⁽²⁾ Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

⁽³⁾ Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box: In Switzerland there is no coal mining and handling nor solid fuel transformation (NO).
--

Additional information ^(a)

Description	Value
Amount of CH ₄ drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

^(a) For underground mines.

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description ⁽¹⁾	Unit	Value	CO ₂ (kg/unit) ⁽²⁾	CH ₄ (kg/unit) ⁽²⁾	N ₂ O (kg/unit) ⁽²⁾	CO ₂ (Gg)	CH ₄ (Gg)	N ₂ O (Gg)
I. B. 2. a. Oil ⁽³⁾							0.00	0.23	
i. Exploration				0.00	0.00				
ii. Production ⁽⁴⁾	(e.g. PJ of oil produced)			0.00	0.00				
iii. Transport	(e.g. PJ oil loaded in tankers)			0.00	0.00				
iv. Refining / Storage	Oil products produced	PJ	220.00	0.00	1'022.73		0.00	0.23	
v. Distribution of oil products	Gasoline consumption (only NMVOC emissions available)	PJ	164.00	0.00	0.00		0.00	0.00	
vi. Other				0.00	0.00				
I. B. 2. b. Natural Gas							31.00	12.20	
Exploration				0.00	0.00				
i. Production ⁽⁴⁾ / Processing	(e.g. PJ gas produced)			0.00	0.00				
ii. Transmission / Distribution	Apparent consumption	PJ	99.07	312'910.06	123'145.25		31.00	12.20	
iii. Other Leakage	(e.g. PJ gas consumed)			0.00	0.00				
at industrial plants and power stations	included in I.B.2.b.ii			0.00	0.00				
in residential and commercial sectors	included in I.B.2.b.ii			0.00	0.00				
I. B. 2. c. Venting ⁽⁵⁾ / Flaring							42.00	0.05	
i. Oil	Oil products produced	PJ	220.00	190'909.09	227.27		42.00	0.05	
ii. Gas	(e.g. PJ gas produced)		0.00	0.00	0.00		0.00	0.00	
iii. Combined				0.00	0.00				
Flaring							0.00	0.00	0.00
i. Oil	(e.g. PJ gas consumption)		0.00	0.00	0.00	0.00	0.00	0.00	0.00
ii. Gas	(e.g. PJ gas consumption)		0.00	0.00	0.00	0.00	0.00	0.00	0.00
iii. Combined			0.00	0.00	0.00	0.00	0.00	0.00	0.00
I.B.2.d. Other (please specify) ⁽⁶⁾				0.00	0.00	0.00	0.00	0.00	0.00

Additional information

Description	Value	Unit
Pipelines length (km); incl. local distribution	11'200	km
Number of oil wells	0	0
Number of gas wells	0	0
Gas throughput ^(a)	99.07	PJ
Oil throughput ^(a)	220.00	PJ
Other relevant information (specify)		

^(a) In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into activity data reported under the production rows of the main table.

⁽¹⁾ Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

⁽²⁾ The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

⁽³⁾ Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under I.B.2.b.ii and I.B.2.b.iii, respectively.

⁽⁴⁾ If using default emission factors these categories will include emissions from production other than venting and flaring.

⁽⁵⁾ If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.


⁽⁶⁾ For example, fugitive CO₂ emissions from production of geothermal power could be reported here.

Documentation box:

I.B.2.a.iv: storage and handling losses.
I.B.2.b.i: practically all gas used in Switzerland is imported; so no production processes are reported.
I.B.2.b.ii: distribution losses are calculated via gas losses per km gas distribution network; emissions include emissions from transit gas transport.
including emissions from compressor stations for transit gas transport.

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO ₂ (t/TJ)	CH ₄ (kg/TJ)	N ₂ O (kg/TJ)	CO ₂ (Gg)	CH ₄ (Gg)	N ₂ O (Gg)
Marine Bunkers	0.00				0.00	0.00	0.00
Gasoline	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gas/Diesel Oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residual Fuel Oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lubricants	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coal	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other <i>(please specify)</i> 	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		0.00	0.00	0.00			
Aviation Bunkers	57'792.00				4'231.00	0.00	0.00
Jet Kerosene	57'792.00	73.21	0.00	0.00	4'231.00	0.00	0.00
Gasoline	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations ⁽¹⁾	0.00				0.00	0.00	0.00

⁽¹⁾ Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.
International aviation bunker consumption is the difference between apparent and domestic consumption. Domestic aviation consumption includes all aviation activities at all airports/airfields except the three main airports of Zurich, Geneva and Basle. So only CO2 emissions (proportionality to the consumption) could be calculated properly. CH4- emissions are very low < 1 Gg. Consumption of aviation gasoline in international aviation is negligible (< 0.5% of the total aviation consumption) and is treated as jet kerosene. No marine bunkers in Switzerland (NO).





Additional information

Fuel consumption	Allocation ^(a) (percent)	
	Domestic	International
Marine	100.00	0.00
Aviation	5.68	94.32

^(a) For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Switzerland
1998
Submission 2000




GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄	N ₂ O	HFCs ⁽¹⁾		PFCs ⁽¹⁾		SF ₆		NO _x	CO	NM VOC	SO ₂
				P	A	P	A	P	A				
	(Gg)			CO ₂ equivalent (Gg)				(Gg)					
Total Industrial Processes	2'204.00	0.42	0.31	0.00	468.38	0.00	70.25	0.00	0.01	0.32	10.92	7.75	3.25
A. Mineral Products	2'071.00	0.02	0.00							0.01	2.08	3.46	2.24
1. Cement Production	2'036.00	0.02								0.01	2.08	0.17	2.24
2. Lime Production	35.00									0.00	0.00	0.00	0.00
3. Limestone and Dolomite Use	0.00												
4. Soda Ash Production and Use	0.00												
5. Asphalt Roofing	0.00										0.00	3.29	
6. Road Paving with Asphalt (included in 5.)	0.00									0.00	0.00	0.00	0.00
7. Other (please specify) 	0.00	0.00	0.00							0.00	0.00	0.00	0.00
B. Chemical Industry	13.00	0.39	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.02	1.16	0.29	0.50
1. Ammonia Production	0.00	0.00								0.00	0.00	0.00	0.00
2. Nitric Acid Production			0.31							0.02			
3. Adipic Acid Production			0.00							0.00	0.00	0.00	
4. Carbide Production 	13.00	0.00								0.00	0.00	0.00	0.50
5. Other (please specify) 	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.29	0.00
Organic chemicals (see table 2(I).A-Gs1)	0.00	0.39	0.00							0.00	1.16	0.29	0.00
C. Metal Production	119.00	0.00	0.00	0.00	0.00	0.00	62.64	0.00	0.00	0.19	2.34	0.31	0.32
1. Iron and Steel Production	75.00	0.00								0.18	1.12	0.27	0.10
2. Ferroalloys Production	1.00	0.00								0.00	0.13	0.03	0.00
3. Aluminium Production	43.00	0.00					62.64			0.01	1.09	0.02	0.22
4. SF ₆ Used in Aluminium and Magnesium Foundries								0.00					
5. Other (please specify) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

⁽¹⁾ The emissions of HFCs and PFCs are to be expressed as CO₂ equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CH ₄	N ₂ O	HFCs ⁽¹⁾		PFCs ⁽¹⁾		SF ₆		NO _x	CO	NMVOC	SO ₂
				P	A	P	A	P	A				
	(Gg)			CO ₂ equivalent (Gg)				(Gg)					
D. Other Production (see below G. "Other")	0.00									0.00	0.00	0.00	0.00
1. Pulp and Paper										0.00	0.00	0.00	0.00
2. Food and Drink ⁽²⁾	0.00											0.00	
E. Production of Halocarbons and SF₆					0.00		0.00		0.00				
1. By-product Emissions					0.00		0.00		0.00				
Production of HCFC-22					0.00								
Other					0.00		0.00		0.00				
2. Fugitive Emissions					0.00		0.00		0.00				
3. Other (please specify) 					0.00		0.00		0.00				
F. Consumption of Halocarbons and SF₆				0.00	468.38	0.00	7.61	0.00	0.01				
1. Refrigeration and Air Conditioning Equipment					191.32		0.00		0.00				
2. Foam Blowing					65.94		0.00		0.00				
3. Fire Extinguishers					0.00		0.00		0.00				
4. Aerosols/ Metered Dose Inhalers					105.17		0.00		0.00				
5. Solvents					0.00		2.36		0.00				
6. Semiconductor Manufacture					105.95		5.25		0.00				
7. Electrical Equipment									0.00				
8. Other (please specify) 				0.00	0.00	0.00	0.00	0.00	0.00				
G. Other (please specify) 	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	5.35	3.69	0.19
Food, drink, pulp, paper, crematories	1.00	0.02	0.00							0.11	5.35	3.69	0.19

⁽²⁾ CO₂ from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO₂ emissions of non-biogenic origin should be reported.

Documentation box:

Data for potential HFC, PFC and SF₆ emissions cannot be entered in this table from Table2(II)s2. Thus they are not carried over to Table Summary 1.A.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Emissions of CO₂, CH₄ and N₂O
(Sheet 1 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS ⁽²⁾					
	Production/Consumption quantity		CO ₂	CH ₄	N ₂ O	CO ₂		CH ₄		N ₂ O	
	Description ⁽¹⁾	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	(2)	(Gg)	(2)	(Gg)	(2)
A. Mineral Products						2'071.00		0.02		0.00	
1. Cement Production	cement production	3'450.00	0.59	0.00		2'036.00		0.02			
2. Lime Production	lime production	94.00	0.37			35.00					
3. Limestone and Dolomite Use			0.00								
4. Soda Ash						0.00					
Soda Ash Production			0.00								
Soda Ash Use			0.00								
5. Asphalt Roofing	asphalt concrete (only NMVOC emissions occurring)	6'000.00	0.00			0.00					
6. Road Paving with Asphalt	included above in A.5		0.00			0.00					
7. Other (please specify)						0.00		0.00		0.00	
Glass Production			0.00								
B. Chemical Industry						13.00		0.39		0.31	
1. Ammonia Production ⁽³⁾	only NH3-emissions		0.00	0.00	0.00						
2. Nitric Acid Production	nitric acid	65.00			0.00					0.31	
3. Adipic Acid Production		0.00			0.00						
4. Carbide Production		96.00	0.14	0.00		13.00		0.00			
Silicon Carbide	split is confidential		0.00	0.00							
Calcium Carbide	split is confidential		0.00	0.00							
5. Other (please specify)						0.00		0.39		0.00	
Carbon Black				0.00							
Ethylene			0.00	0.00	0.00						
Dichloroethylene				0.00							
Styrene				0.00							
Methanol				0.00							
Organic chemicals	production of ethylene, PVC, formaldehyde, acetic acid		0.00	0.00	0.00			0.39		0.00	




⁽¹⁾ Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

⁽²⁾ Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

⁽³⁾ To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Emissions of CO₂, CH₄ and N₂O
(Sheet 2 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS ⁽²⁾					
	Production/Consumption Quantity		CO ₂	CH ₄	N ₂ O	CO ₂		CH ₄		N ₂ O	
	Description ⁽¹⁾	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	(2)	(Gg)	(2)	(Gg)	(2)
C. Metal Production⁽⁴⁾						119.00		0.00		0.00	
1. Iron and Steel Production			0.00			75.00		0.00			
Steel	steel production	760.00	0.10			75.00					
Pig Iron			0.00	0.00		0.00		0.00			
Sinter			0.00	0.00							
Coke			0.00	0.00							
Other (please specify) 						0.00		0.00			
			0.00	0.00	0.00						
2. Ferroalloys Production	ferroalloys production	52.00	0.02	0.00		1.00		0.00			
3. Aluminium Production	aluminium production	27.00	1.59	0.00		43.00		0.00			
4. SF ₆ Used in Aluminium and Magnesium Foundries											
5. Other (please specify) 						0.00		0.00		0.00	
			0.00	0.00	0.00						
D. Other Production						0.00					
1. Pulp and Paper											
2. Food and Drink			0.00								
G. Other (please specify) 						1.00		0.02		0.00	
Food, drink, pulp, paper, crematories			0.00	0.00	0.00	1.00		0.02		0.00	

⁽⁴⁾ More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
2.B.4. Carbide production: Aggregated figures due to confidentiality.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF₆
(Sheet 1 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs ⁽¹⁾	CF ₄	C ₂ F ₆	C ₃ F ₈	C ₄ F ₁₀	c-C ₄ F ₈	C ₅ F ₁₂	C ₆ F ₁₄	Total PFCs ⁽¹⁾	SF ₆
	(t) ⁽²⁾																						
Total Actual Emissions of Halocarbons (by chemical) and SF ₆	0.10	0.50	0.00	80.60	11.40	0.00	222.80	64.30	0.00	8.30	0.00	0.00	0.00		7.50	1.20	0.00	0.00	0.10	0.10	0.10		6.40
C. Metal Production															7.40	0.70							0.60
Aluminium Production															7.40	0.70							0.50
SF ₆ Used in Aluminium Foundries																							0.10
SF ₆ Used in Magnesium Foundries																							0.10
E. Production of Halocarbons and SF₆	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
1. By-product Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Production of HCFC-22	0.00																						
Other																							
2. Fugitive Emissions																							
3. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
F(a). Consumption of Halocarbons and SF₆ (actual emissions - Tier 2)	0.10	0.50	0.00	80.60	11.40	0.00	222.80	64.30	0.00	8.30	0.00	0.00	0.00		0.10	0.50	0.00	0.00	0.10	0.10	0.10		5.80
1. Refrigeration and Air Conditioning Equipment		0.50			11.40		98.10			8.30													
2. Foam Blowing							43.80	64.30															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							80.90																
5. Solvents																			0.10	0.10	0.10		
6. Semiconductor Manufacture	0.10			80.60											0.10	0.50							0.10
7. Electrical Equipment																							4.00
8. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		1.70
double glass insulation																							1.70
G. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00

⁽¹⁾ Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

⁽²⁾ Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF₆
(Sheet 2 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ea	Total HFCs	CF ₄	C ₂ F ₆	C ₃ F ₈	C ₄ F ₁₀	c-C ₄ F ₈	C ₃ F ₁₂	C ₆ F ₁₄	Total PFCs	SF ₆
	(t) ⁽²⁾																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF₆ ⁽³⁾	1.30	9.90	0.00	0.00	57.70	0.00	478.60	67.70	0.00	49.80	0.00	0.00	0.00		0.50	1.80	0.00	1.00	0.40	1.60	0.30		44.20
Production ⁽⁴⁾																							
Import:	1.30	9.90	0.00	0.00	57.70	0.00	848.60	573.90	0.00	49.80	0.00	0.00	0.00		0.50	1.80	0.00	1.00	0.40	1.60	0.30		126.40
In bulk	1.30	9.90			55.70		548.60	530.60		47.80					0.50	1.80		1.00	0.40	1.60	0.30		120.40
In products ⁽⁵⁾					2.00		300.00	43.30		2.00													6.00
Export:	0.00	0.00	0.00	0.00	0.00	0.00	370.00	506.20	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		82.20
In bulk																							1.00
In products ⁽⁵⁾							370.00	506.20															81.20
Destroyed amount																							
GWP values used	11700	650	150	1300	2800	1000	1300	140	300	3800	2900	6300	560		6500	9200	7000	7000	8700	7500	7400		23900
Total Actual Emissions ⁽⁶⁾ (Gg CO ₂ eq.)	1.17	0.33	0.00	104.78	31.92	0.00	289.64	9.00	0.00	31.54	0.00	0.00	0.00	468.38	48.75	11.04	7.40	0.70	0.87	0.75	0.74	70.25	152.96
C. Metal Production															48.10	6.44	7.40	0.70				62.64	14.34
E. Production of Halocarbons and SF ₆	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F(a). Consumption of Halocarbons and SF ₆	1.17	0.33	0.00	104.78	31.92	0.00	289.64	9.00	0.00	31.54	0.00	0.00	0.00	468.38	0.65	4.60	0.00	0.00	0.87	0.75	0.74	7.61	138.62
G. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF₆																							
Actual emissions - F(a) (Gg CO ₂ eq.)	1.17	0.33	0.00	104.78	31.92	0.00	289.64	9.00	0.00	31.54	0.00	0.00	0.00	468.38	0.65	4.60	0.00	0.00	0.87	0.75	0.74	7.61	138.62
Potential emissions - F(p) (7) (Gg CO ₂ eq.)	15.21	6.44	0.00	0.00	161.56	0.00	622.18	9.48	0.00	189.24	0.00	0.00	0.00	1'004.10	3.25	16.56	0.00	7.00	3.48	12.00	2.22	44.51	1'056.38
Potential/Actual emissions ratio	13.00	19.80	0.00	0.00	5.06	0.00	2.15	1.05	0.00	6.00	0.00	0.00	0.00	2.14	5.00	3.60	0.00	0.00	4.00	16.00	3.00	5.85	7.62

⁽³⁾ Potential emissions of each chemical of halocarbons and SF₆ estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3, Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

⁽⁴⁾ Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

⁽⁵⁾ Relevant just for Tier 1b.





⁽⁶⁾ Sums of the actual emissions of each chemical of halocarbons and SF₆ from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

⁽⁷⁾ Potential emissions of each chemical of halocarbons and SF₆ taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF₆, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO₂ equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF₆
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS ⁽²⁾	EMISSIONS ⁽²⁾	
	Description ⁽¹⁾	(t)		(t)	(3)
C. PFCs and SF₆ from Metal Production					
PFCs from Aluminium Production					
CF ₄			0.00	7.40	
C ₂ F ₆			0.00	0.70	
SF ₆				0.60	
Aluminium Foundries	(SF ₆ consumption)		0.00	0.50	
Magnesium Foundries			0.00	0.10	
E. Production of Halocarbons and SF₆					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0.00		
Other (specify chemical) 			0.00		
2. Fugitive Emissions					
HFCs (specify chemical) 					
			0.00		
PFCs (specify chemical) 					
			0.00		
SF ₆			0.00		
3. Other (please specify) 					
			0.00		

⁽¹⁾ Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

⁽²⁾ Emissions and implied emission factors are after recovery.









⁽³⁾ Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box: Preliminary data; detailed information 2001/2002.
--

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF₆
(Sheet 1 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Amount of fluid			Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning ⁽¹⁾						
	(t)	(% per annum)	(t)						
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration (Specify chemical) ⁽²⁾ 									
(e.g. HFC-32)									
(e.g. HFC-125)									
HFC-134a		32.00						0.30	0.30
(e.g. HFC-152a)									
(e.g. HFC-143a)									
Commercial Refrigeration 									
HFC-32		3.30					0.00	0.40	0.00
HFC-125		60.00					0.30	7.00	0.00
HFC-134a		163.00					0.80	19.50	0.00
HFC-143a		40.00					0.20	5.00	0.00
Transport Refrigeration 									
HFC-32		0.00					0.00	0.00	0.00
HFC-125		2.00					0.00	0.30	0.00
HFC-134a		8.00					0.00	1.20	0.00
HFC-143a		2.00					0.00	0.30	0.00
Industrial Refrigeration 									
HFC-32		1.00					0.00	0.00	0.00
HFC-125		25.00					0.10	3.40	0.00
HFC-134a		70.00					0.30	8.30	0.00
HFC-143a		20.00					0.10	2.40	0.00
Stationary Air-Conditioning 									
HFC-32		1.50					0.00	0.10	0.00
HFC-125		6.00					0.00	0.30	0.00
HFC-134a		113.50					0.10	6.00	0.10
HFC-143a		5.00					0.00	0.30	0.00
Mobile Air-Conditioning 									
HFC-134a		650.00					0.20	53.00	8.00
2 Foam Blowing									
Hard Foam 									
HFC-152a	21.20						2.70	61.60	0.00
HFC-134a	14.40						1.80	42.00	0.00
Soft Foam 									








⁽¹⁾ Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relevant information used in the emission estimation.

⁽²⁾ Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disaggregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF₆ using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II).Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF₆
(Sheet 2 of 2)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA <i>Amount of fluid</i>			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning ⁽¹⁾	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers 									
4 Aerosols									
Metered Dose Inhalers 									
HFC-134a								0.30	
Other 									
HFC-134a							0.60	80.00	
5 Solvents 									
PFCs	4.20		3.90					0.30	
HFC-43-10	0.10								
6 Semiconductors 									
SF6								0.10	
HFC-23								0.10	
CF4								0.10	
C2F6								0.50	
7 Electric Equipment 									
SF6		230.00					1.70	1.00	
8 Other (please specify) 									

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

Preliminary data; detailed information 2001/2002.

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	N ₂ O	NMVOC	NO _x	CO	SO ₂
	(Gg)			(Gg)		
Total Solvent and Other Product Use	0.00	0.39	107.46	0.04	0.09	0.04
A. Paint Application	0.00	0.00	27.90	0.00	0.00	0.00
B. Degreasing and Dry Cleaning	0.00	0.00	8.86	0.00	0.00	0.00
C. Chemical Products, Manufacture and Processing			17.80	0.00	0.00	0.00
D. Other (please specify)	0.00	0.39	52.90	0.04	0.09	0.04
Spray cans, cosmetic institutions, hair stylists, house cleaning, laboratories, textile production, vehicles dewaxing, printing industry	0.00	0.39	52.90	0.04	0.09	0.04

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO₂ columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N₂O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO ₂ (t/t)	N ₂ O (t/t)
A. Paint Application	construction, industry, households	163.00	0.00	0.00
B. Degreasing and Dry Cleaning	dry cleaning, degreasing of metals and electronics		0.00	0.00
C. Chemical Products, Manufacture and Processing				
D. Other (please specify) ⁽¹⁾				
Spray cans, cosmetic institutions, hair stylists, house cleaning, laboratories, textile production, vehicles dewaxing, printing industry			0.00	0.00
			0.00	0.00
			0.00	0.00
(Other Use of N ₂ O)			0.00	0.00

⁽¹⁾ Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:
<p>A. Paint Application: only NMVOC emissions occurring.</p> <p>B. Degreasing and Dry Cleaning: only NMVOC emissions occurring.</p> <p>C. Chemical Products, Manufacture and Processing: Handling and storage of solvents, fine chemical production, paint manufacturing, ink manufacturing, glues manufacturing, adhesive tape manufacturing, perfume production (only NMVOC emissions occurring).</p> <p>D. Other: many different activities; actually, the Swiss CORINAIR model gives only aggregated emissions. Desaggregated information in 2002/2003 (model update).</p>

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Switzerland

1998

Submission 2000


GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH ₄	N ₂ O	NO _x	CO	NMVOC
	(Gg)				
Total Agriculture	137.06	8.33	0.00	0.00	0.00
A. Enteric Fermentation	118.01				
1. Cattle	112.03				
Dairy Cattle	73.15				
Non-Dairy Cattle	38.88				
2. Buffalo					
3. Sheep	2.89				
4. Goats	0.51				
5. Camels and Llamas					
6. Horses / Mules / Asses	0.93				
7. Mules and Asses (see 6.)					
8. Swine	1.56				
9. Poultry	0.09				
10. Other (<i>please specify</i>) 	0.00				
B. Manure Management	19.05	1.37			0.00
1. Cattle	13.35				
Dairy Cattle	10.30				
Non-Dairy Cattle	3.05				
2. Buffalo					
3. Sheep	0.06				
4. Goats	0.01				
5. Camels and Llamas					
6. Horses / Mules / Asses	0.27				
7. Mules and Asses (see 6.)					
8. Swine	5.27				
9. Poultry	0.10				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Switzerland
1998
Submission 2000


GREENHOUSE GAS SOURCE AND SINK	CH ₄	N ₂ O	NO _x	CO	NMVOC
CATEGORIES	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons		0.00			
11. Liquid Systems		0.13			
12. Solid Storage and Dry Lot		1.24			
13. Other (please specify) ■■		0.00			0.00
C. Rice Cultivation	0.00				0.00
1. Irrigated	0.00				
2. Rainfed	0.00				
3. Deep Water	0.00				
4. Other (please specify) ■■	0.00				0.00
D. Agricultural Soils ⁽¹⁾	0.00	6.96			0.00
1. Direct Soil Emissions		4.01			
2. Animal Production		0.58			
3. Indirect Emissions		2.37			
4. Other (please specify) ■■	0.00	0.00			0.00
E. Prescribed Burning of Savannas	0.00	0.00			
F. Field Burning of Agricultural Residues	0.00	0.00	0.00	0.00	0.00
1. Cereals	0.00	0.00			
2. Pulse	0.00	0.00			
3. Tuber and Root	0.00	0.00			
4. Sugar Cane	0.00	0.00			
5. Other (please specify) ■■	0.00	0.00	0.00	0.00	0.00
G. Other (please specify) ■■	0.00	0.00	0.00	0.00	0.00

⁽¹⁾ See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO₂ emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO₂ emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH₄ emissions, CH₄ and N₂O removals from agricultural soils, or CO₂ emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA ⁽¹⁾ AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size ⁽²⁾ (1000 head)	Average daily feed intake (MJ/day)	CH ₄ conversion (%)	CH ₄ (kg CH ₄ /head/yr)
1. Cattle	1'641			68.27
Dairy Cattle ⁽³⁾	737	252.2	6.00	99.25
Non-Dairy Cattle	904	109.3	6.00	43.01
2. Buffalo				0.00
3. Sheep	422	20.9	5.00	6.55
4. Goats	60	26.0	5.00	8.53
5. Camels and Llamas				0.00
6. Horses	46	153.8	2.00	20.18
7. Mules and Asses				0.00
8. Swine	1'487	31.7	0.51	1.05
9. Poultry	6'724	2.2	0.09	0.01
10. Other (please specify) 				0.00

Additional information (for Tier 2)^(a)

Disaggregated list of animals ^(b)		Dairy Cattle	Non-Dairy Cattle	Other (specify)	
Indicators:					
Weight	(kg)				
Feeding situation ^(c)					
Milk yield	(kg/day)				
Work	(hrs/day)				
Pregnant	(%)				
Digestibility of feed	(%)				

^(a) Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3, Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

^(b) Disaggregate to the split actually used. Add columns to the table if necessary.

^(c) Specify feeding situation as pasture, stall fed, confined, open range, etc.

⁽¹⁾ In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

⁽²⁾ Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH₄ emissions from enteric fermentation, CH₄ and N₂O from manure management, N₂O direct emissions from soil and N₂O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

⁽³⁾ Including data on dairy heifers, if available.

Documentation box:
Ponies, mules and asses as well as turkeys have been neglected in the methane inventory calculations (emissions <0.01% of total methane emissions of this sector). Values given in column C are the gross energy intake per head and day. Population sizes are 1998 population sizes (no 3-year averages). Calculation of 3-year averages of aggregated emissions is done in table 10s3.

Livestock population data 1998	head	kg N/head/year	Frac _{GASM} ⁽⁶⁾	N volatilized (kg N)
Cattle	1640871			
dairy cattle(1)	737343	108.675	0.335	26843801
rearing cattle 1st year	253527	26	0.235	1549050
rearing cattle 2nd year	217351	42	0.235	2145254
rearing cattle 3rd year	132668	63	0.235	1964150
fattening calves	136892	12	0.385	632441
fattening cattle < 1/2 year	65783	8	0.385	202612
fattening cattle >1/2 year	97307	35	0.385	1311212
Pigs	1486955			
fattening pig places (2)	827262	15	0.475	5894242
breeding pig places (3)	155548	35	0.475	2585986
Sheep	422270			
sheep places (4)	208676	16	0.155	517516
Goats	60106			
goat places (5)	35443	18	0.305	194582
Horses	46297			
foals < 1 year	4406	17	0.335	25092
foals 1-2 years	2985	26	0.335	25999
foals 2-3 years	2604	34	0.335	29660
foals 3-4 years	2553	43	0.335	36776
horses > 4 years	24517	60	0.335	492792
breeding mares and stallions	9232	69	0.335	213398
Ponies, Mules and Asses	9940			
ponies, mules and asses < 1 year	1187	17	0.335	6760
ponies, mules and asses > 1 year	8753	26	0.335	76239
Poultry	6723735			
laying hens	2270137	0.71	0.555	894547
young hens < 18 weeks	793496	0.34	0.555	149733
broilers	3502338	0.4	0.495	693463
turkeys	157764	1.4	0.495	109330

⁽¹⁾ N excretion calculated based on milk production: 105 kg N/head/year at a milk production of 5000 kg/head/year, increased by 10% for every 500 kg additional milk production. Milk production 1998: 5350 kg/head/year

⁽²⁾ one fattening pig place per fattening pig > 25 kg

⁽³⁾ one breeding pig place per sow, 1/2 place per boar

⁽⁴⁾ one sheep place per ewe > 1 year

⁽⁵⁾ one goat place per goat > 1.5 years

⁽⁶⁾ includes ammonia volatilization calculated for each species based on management practice and NO emissions of 1.5% of the excreted N

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE
CH₄ Emissions from Manure Management
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS CH ₄	
	Population size (1)	Allocation by climate region (2)			Typical animal mass	VS ⁽³⁾ daily excretion		CH ₄ producing potential (Bo) ⁽⁴⁾
		Cool	Temperate	Warm				
		(%)						
(1000 head)				(kg)	(kg dm/head/yr)	(CH ₄ m ³ /kg VS)	(kg CH ₄ /head/yr)	
1. Cattle	1641	100.0						8.14
Dairy Cattle ⁽⁵⁾	737	100.0				1271.0	0.24	13.98
Non-Dairy Cattle	904	100.0				521.0	0.17	3.37
2. Buffalo								0.00
3. Sheep	422	100.0				103.4	0.19	0.13
4. Goats	60	100.0				128.7	0.17	0.15
5. Camels and Llamas								0.00
6. Horses	46	100.0				1369.0	0.33	5.81
7. Mules and Asses								0.00
8. Swine	1487	100.0				125.4	0.45	3.54
9. Poultry	6724	100.0				7.1	0.32	0.02

⁽¹⁾ See footnote 1 to Table 4.A of this common reporting format.
⁽²⁾ Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).
⁽³⁾ VS=Volatile Solids; Bo=maximum methane producing capacity for manure IPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15).
⁽⁴⁾ Including data on dairy heifers, if available.

Documentation Box:
The unit given in G9 does not fit to the title in G7. The values are given in kg dm/head/year.
Population sizes are 1998 population sizes (no 3 year averages). Calculation of 3 year averages of aggregated emissions is done in table 10x3.

Additional information (for Tier 2)

Animal category ^(a)	Indicator	Animal waste management system						
		Climate region	Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation ^(b)	Cool	0.00	64.90	0.00	27.80	7.30	0.00
		Temperate						
		Warm						
Dairy Cattle	MCF ^(b)	Cool						
		Temperate						
		Warm						
Rearing Cattle	Allocation ^(b)	Cool	0.00	33.00	0.00	26.00	41.00	0.00
		Temperate						
		Warm						
Rearing Cattle	MCF ^(b)	Cool						
		Temperate						
		Warm						
Fattening Cattle	Allocation ^(b)	Cool	0.00	89.20	0.00	8.80	2.00	0.00
		Temperate						
		Warm						
Fattening Cattle	MCF ^(b)	Cool						
		Temperate						
		Warm						
Fattening Calves	Allocation ^(b)	Cool	0.00	0.00	0.00	98.00	2.00	0.00
		Temperate						
		Warm						
Fattening Calves	MCF ^(b)	Cool						
		Temperate						
		Warm						
Swine	Allocation ^(b)	Cool	0.00	93.00	0.00	7.00	0.00	0.00
		Temperate						
		Warm						
Swine	MCF ^(b)	Cool						
		Temperate						
		Warm						
Sheep	Allocation ^(b)	Cool	0.00	0.00	0.00	31.00	69.00	0.00
		Temperate						
		Warm						
Sheep	MCF ^(b)	Cool						
		Temperate						
		Warm						
Goats	Allocation ^(b)	Cool	0.00	0.00	0.00	80.00	20.00	0.00
		Temperate						
		Warm						
Goats	MCF ^(b)	Cool						
		Temperate						
		Warm						
Horses	Allocation ^(b)	Cool	0.00	10.20	0.00	82.80	7.00	0.00
		Temperate						
		Warm						
Horses	MCF ^(b)	Cool						
		Temperate						
		Warm						
Poultry	Allocation ^(b)	Cool	0.00	0.00	0.00	100.00	0.00	0.00
		Temperate						
		Warm						
Poultry	MCF ^(b)	Cool						
		Temperate						
		Warm						
Distribution of V _c	Allocation ^(b)	Cool	0.00	52.00	0.00	23.00	25.00	0.00
		Temperate						
		Warm						
Distribution of V _c	MCF ^(b)	Cool						
		Temperate						
		Warm						

^(a) Copy the above table as many times as necessary.
^(b) MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3, Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE
N₂O Emissions from Manure Management
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other	(kg N ₂ O-N/kg N)	
Non-Dairy Cattle									Anaerobic lagoon	0.000
Dairy Cattle	737	108.7	0	51'980'665	0	22'265'986	5'846'824	0	Liquid system	0.001
Sheep	209	16.0	0	0	0	1'036'640	2'307'360	0	Solid storage and dry lot	0.020
Swine									Other	0.000
Poultry	6'724	0.52	0	0	0	3'496'480	0	0		
Other (please specify) <input type="checkbox"/>										
Rearing cattle 1st year	254	26.0	0	2'179'320	0	1'717'040	2'707'640	0		
Rearing cattle 2nd year	217	42.0	0	3'007'620	0	2'369'640	3'736'740	0		
Rearing cattle 3rd year	133	63.0	0	2'765'070	0	2'178'540	3'435'390	0		
Fattening cattle > 1/2 year	97	35.0	0	3'028'340	0	298'760	67'900	0		
Fattening cattle < 1/2 year	66	8.0	0	0	0	517'440	10'560	0		
Fattening calves	137	12.0	0	0	0	1'611'120	32'880	0		
Fattening pig places	827	15.0	0	11'536'650	0	868'350	0	0		
Breeding pig places	156	35.0	0	5'077'800	0	382'200	0	0		
Goats	35	18.0	0	0	0	504'000	126'000	0		
Horses	46	53.1	0	249'145	0	2'022'473	170'982	0		
Mules and Asses	10	24.9	0	25'398	0	206'172	17'430	0		
Total per AWMS⁽²⁾			0	79'850'008	0	39'474'841	18'459'706	0		

⁽¹⁾ See footnote 1 to Table 4.A of this common reporting format.

⁽²⁾ AWMS - Animal Waste Management System.

Documentation box:

Swine, Sheep and Goats: the nitrogen excretions for sheep and goat places given in the additional table in Table 4.A include the nitrogen excretion of the male and the young animals.

The N excretion values given for horses, mules and asses, and poultry are mean values calculated from the populations statistics.

Population sizes are 1998 population sizes (no 3 year averages). Calculation of 3 year averages of aggregated emissions is done in table 10s3.

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE
Rice Cultivation
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR ⁽¹⁾	EMISSIONS
	Harvested area ⁽²⁾ (10 ⁻⁹ m ² /yr)	Organic amendments added ⁽³⁾ :		CH ₄ (g/m ²)	CH ₄ (Gg)
		type	(t/ha)		
1. Irrigated					0.00
Continuously Flooded	0.00	0	0.00	0.00	0.00
Intermittently Flooded	0.00	0	0.00	0.00	0.00
Single Aeration	0.00	0	0.00	0.00	0.00
Multiple Aeration	0.00	0	0.00	0.00	0.00
2. Rainfed					0.00
Flood Prone	0.00	0	0.00	0.00	0.00
Drought Prone	0.00	0	0.00	0.00	0.00
3. Deep Water					0.00
Water Depth 50-100 cm	0.00	0	0.00	0.00	0.00
Water Depth > 100 cm	0.00	0	0.00	0.00	0.00
4. Other (please specify)					0.00
				0.00	
Upland Rice ⁽⁴⁾					
Total ⁽⁴⁾	0.00				

⁽¹⁾ The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

⁽²⁾ Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

⁽³⁾ Specify dry weight or wet weight for organic amendments.

⁽⁴⁾ These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When disaggregating by more than one region within a country, provide additional information in the documentation box.

Where available, provide activity data and scaling factors by soil type and rice cultivar.

No rice cultivation in Switzerland.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE
Agricultural Soils⁽¹⁾
(Sheet 1 of 1)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS		EMISSIONS (Gg N ₂ O)
	Description	Value	Unit		
Direct Soil Emissions	N input to soils (kg N/yr)				4.015
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	55'084'000	(kg N ₂ O-N/kg N) ⁽²⁾	0.0125	1.083
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	75'719'849	(kg N ₂ O-N/kg N) ⁽²⁾	0.0125	1.488
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	1'159'155'620	(kg N ₂ O-N/kg dry biomass) ⁽²⁾	0.00035	0.646
Crop Residue	Dry production of other crops (kg dry biomass/yr)	9'567'500'360	(kg N ₂ O-N/kg dry biomass) ⁽²⁾	0.00005	0.743
Cultivation of Histosols	Area of cultivated organic soils (ha)	7'000	(kg N ₂ O-N/ha) ⁽²⁾	5.000	0.055
Animal Production	N excretion on pasture range and paddock (kg N/yr)	18'459'706	(kg N₂O-N/kg N)⁽²⁾	0.020	0.580
Indirect Emissions					2.370
Atmospheric Deposition	Volatized N (NH ₃ and NO _x) from fertilizers and animal wastes (kg N/yr)	52'325'934	(kg N ₂ O-N/kg N) ⁽²⁾	0.010	0.827
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	38'573'711	(kg N ₂ O-N/kg N) ⁽²⁾	0.025	1.543
Other (please specify)					0.00
				0.000	

⁽¹⁾ See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO₂ emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

⁽²⁾ To convert from N₂O-N to N₂O emissions, multiply by 44/28.

Documentation box:

Synthetic fertilizer includes 3.9 kt N in sewage sludge and 3.0 kt N in compost, 6% ammonia volatilization are subtracted.

Animal wastes applied to soil: total N excretion minus N excreted on pastures minus ammonia volatilization from solid and liquid manure.

Crops include grass and silage corn.

Values given in row 12 (crop residue) include also N fixing crops, C11 includes clover in grass production (17.7% of the grass) and F11 are only the emissions caused by N fixation.

Volatilized N includes: 43605 t NH₃-N from liquid and solid manure, 3516 t NH₃-N from synthetic fertilizers, 923 t NH₃-N from pasture range, 1600 t NH₃-N from soils and 2946 t NO_x-N from synthetic fertilizers and animal wastes.

Calculation of 3 year averages of aggregated emissions is done in table 10s3.

Additional information

Fraction ^(a)	Description	Value
Frac _{BURN}	Fraction of crop residue burned	0.00
Frac _{FUEL}	Fraction of livestock N excretion in excrements burned for fuel	0.00
Frac _{GASF}	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH ₃ and NO _x	0.075
Frac _{GASM}	Fraction of livestock N excretion that volatilizes as NH ₃ and NO _x	see in table4.A
Frac _{GRAZ}	Fraction of livestock N excreted and deposited onto soil during grazing	see in table4.B(a)
Frac _{LEACH}	Fraction of N input to soils that is lost through leaching and runoff	0.20
Frac _{NCRF}	Fraction of N in non-N-fixing crop	see in table4.F
Frac _{NCRO}	Fraction of N in N-fixing crop	see in table4.F
Frac _R	Fraction of crop residue removed from the field as crop	see in table4.F

^(a) Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE
Prescribed Burning of Savannas
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH ₄	N ₂ O	CH ₄	N ₂ O
(specify ecological zone) <input type="text"/>								0.00	0.00
						0.00	0.00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

No burning of savannas in Switzerland.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Switzerland
1998
Submission 2000






GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS		Nitrogen incorporated with crop residues (t N)	Dry matter production (kg DM)	N2O emissions from crop residues (t N2O)	N fixed per kg crop (kg N/kg crop)	N fixed (kg N)	N2O emissions from N fixation (t N2O)
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH ₄	N ₂ O	CH ₄	N ₂ O						
							(kg/t dm)	(kg/t dm)	(Gg)	(Gg)						
1. Cereals									0.00	0.00						
Wheat	594'915.00	0.0063	0.85	0.00			0.00	0.00					74			
Barley	332'711.00	0.0043	0.85	0.00			0.00	0.00					28			
Maize	191'813.00	0.0071	0.85	0.00			0.00	0.00					27			
Oats	39'855.00	0.0064	0.85	0.00			0.00	0.00					5			
Rye	22'306.00	0.0102	0.85	0.00			0.00	0.00					4			
Rice	0.00						0.00	0.00								
Other (please specify)									0.00	0.00						
Spelt	8'326.00	0.0112	0.85	0.00			0.00	0.00					2			
Triticale	51'048.00	0.0100	0.85	0.00			0.00	0.00					10			
							0.00	0.00								
2. Pulse ⁽¹⁾									0.00	0.00						
Dry bean	1'560.00	0.0338	0.85	0.00			0.00	0.00					1	0.0443	69030	1.36
Pean	9'675.00	0.0200	0.88	0.00			0.00	0.00					4	0.0276	267030	5.25
Soybeans	7'514.00	0.0400	0.85	0.00			0.00	0.00					6	0.0600	450840	8.86
Other (please specify)									0.00	0.00						
Leguminous vegetables	15'954.00	0.0185	0.18	0.00			0.00	0.00					6	0.0177	282386	5.55
							0.00	0.00								
3 Tuber and Root									0.00	0.00						
Potatoes	560'000.00	0.0010	0.22	0.00			0.00	0.00					11			
Other (please specify)									0.00	0.00						
Fodder beet	309'000.00	0.0014	0.16	0.00			0.00	0.00					8			
Sugar Beet	1'124'644.00	0.0023	0.22	0.00			0.00	0.00					50			
							0.00	0.00								
4 Sugar Cane							0.00	0.00								
5 Other (please specify)									0.00	0.00						
Grass	6'441'000.00	0.0036	1.00	0.00			0.00	0.00					450	0.0049	31818540	625.01
Silage corn	1'369'000.00	0.0003	1.00	0.00			0.00	0.00					8			
Fruits	707'748.00	0.0007	0.17	0.00			0.00	0.00					9			
Vine	153'374.00	0.0012	0.20	0.00			0.00	0.00					4			
Renewable energy crops	4'956.00	0.0140	0.90	0.00			0.00	0.00					1			
Non-leguminous vegetables	303'135.00	0.0031	0.20	0.00			0.00	0.00					19			
Sunflowers	4'090.00	0.0180	0.85	0.00			0.00	0.00					1			
Tobacco	1'506.00	0.0260	1.00	0.00			0.00	0.00					1			
Rape	47'167.00	0.0140	0.90	0.00			0.00	0.00					13			
							0.00	0.00								

⁽¹⁾ To be used in Table 4.D of this common reporting format.

Documentation Box:
The values given in column C are not the residue/crop ratios, but the ratios of nitrogen in crop residues to crop biomass at the given dry matter content [kg residue-N/kg crop] It is assumed that 5% of the silage corn and 18% of the grass are left on the field as crop residues, and that 10% of the leaves of sugar beet and fodder beet are removed from the field (already included in column C) The added column M shows the nitrogen incorporated with the crop residues. Calculation of 3year averages of aggregated emissions is done in table 10x3.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ emissions	CO ₂ removals	Net CO ₂ emissions/ removals	CH ₄	N ₂ O	NO _x	CO
	(Gg)						
Total Land-Use Change and Forestry	0.00	-6'109.00	-6'109.00	0.00	0.00	0.00	0.00
A. Changes in Forest and Other Woody Biomass Stocks	0.00	-6'109.00	-6'109.00				
1. Tropical Forests			0.00				
2. Temperate Forests		-6'109.00	-6'109.00				
3. Boreal Forests			0.00				
4. Grasslands/Tundra			0.00				
5. Other (please specify) 	0.00	0.00	0.00				
Harvested Wood ⁽¹⁾			0.00				
			0.00				
B. Forest and Grassland Conversion ⁽²⁾	0.00			0.00	0.00	0.00	0.00
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other (please specify) 	0.00			0.00	0.00	0.00	0.00
C. Abandonment of Managed Lands	0.00	0.00	0.00				
1. Tropical Forests			0.00				
2. Temperate Forests			0.00				
3. Boreal Forests			0.00				
4. Grasslands/Tundra			0.00				
5. Other (please specify) 	0.00	0.00	0.00				
			0.00				
D. CO₂ Emissions and Removals from Soil	0.00	0.00	0.00				
Cultivation of Mineral Soils			0.00				
Cultivation of Organic Soils			0.00				
Liming of Agricultural Soils			0.00				
Forest Soils			0.00				
Other (please specify) ⁽³⁾ 	0.00	0.00	0.00				
			0.00				
E. Other (please specify) 	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			0.00				

⁽¹⁾ Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

⁽²⁾ Include only the emissions of CO₂ from Forest and Grassland Conversion. Associated removals should be reported under section D.

⁽³⁾ Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

**TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE
AND FORESTRY**

Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks	Average annual growth rate	Implied carbon uptake factor	Carbon uptake increment
			(kha)	(t dm/ha)	(t C/ha)	(Gg C)
Tropical	Plantations	<i>Acacia spp.</i>			0.00	
		<i>Eucalyptus spp.</i>			0.00	
		<i>Tectona grandis</i>			0.00	
		<i>Pinus spp.</i>			0.00	
		<i>Pinus caribaea</i>			0.00	
		Mixed Hardwoods			0.00	
		Mixed Fast-Growing Hardwoods			0.00	
		Mixed Softwoods			0.00	
	Other Forests	Moist			0.00	
		Seasonal			0.00	
		Dry			0.00	
	Other (specify) ■■■				0.00	
					0.00	
					0.00	
Temperate	Plantations				0.00	
	Commercial	Evergreen	790.00	4'762.00	3.01	2'381.00
		Deciduous	322.00	2'810.00	4.36	1'405.00
	Other (specify) ■■■				0.00	
Boreal					0.00	
			Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees (specify type) ■■■						0.00
					0.00	
Total annual growth increment (Gg C)						3'786.00
Gg CO ₂						13'882.00
			Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)	
Total biomass removed in Commercial Harvest			1'506.00	0.73	1'092.00	
Traditional Fuelwood Consumed			395.00	0.73	286.50	
Total Other Wood Use			1'023.00	0.72	741.50	
Total Biomass Consumption from Stocks ⁽¹⁾ (Gg C)						2'120.00
Other Changes in Carbon Stocks ⁽²⁾ (Gg C)						
Gg CO ₂						7'773.33
Net annual carbon uptake (+) or release (-) (Gg C)						1'666.00
Net CO ₂ emissions (-) or removals (+) (Gg CO ₂)						6'108.67

⁽¹⁾ Make sure that the quantity of biomass burned off-site is subtracted from this total.


⁽²⁾ The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Forest and Grassland Conversion
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass ⁽¹⁾												
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	Burning			Decay	Burning			Decay		
				On site	Off site				On site		Off site							
									CO ₂	CH ₄			N ₂ O	CO ₂	CO ₂		CO ₂	CH ₄
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0.00	0.00	0.00	0.00	0.00					
	Moist, short dry season								0.00	0.00	0.00	0.00	0.00					
	Moist, long dry season								0.00	0.00	0.00	0.00	0.00					
	Dry								0.00	0.00	0.00	0.00	0.00					
	Montane Moist								0.00	0.00	0.00	0.00	0.00					
	Montane Dry								0.00	0.00	0.00	0.00	0.00					
Tropical Savanna/Grasslands									0.00	0.00	0.00	0.00	0.00					
Temperate	Coniferous								0.00	0.00	0.00	0.00	0.00					
	Broadleaf								0.00	0.00	0.00	0.00	0.00					
	Mixed Broadleaf/Coniferous								0.00	0.00	0.00	0.00	0.00					
Grasslands									0.00	0.00	0.00	0.00	0.00					
Boreal	Mixed Broadleaf/Coniferous								0.00	0.00	0.00	0.00	0.00					
	Coniferous								0.00	0.00	0.00	0.00	0.00					
	Forest-tundra								0.00	0.00	0.00	0.00	0.00					
Grasslands/Tundra									0.00	0.00	0.00	0.00	0.00					
Other <i>(please specify)</i> 									0.00	0.00	0.00	0.00	0.00					
									0.00	0.00	0.00	0.00	0.00					
Total														0.00	0.00	0.00	0.00	0.00

⁽¹⁾ Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0.00	0.00
Total On site and Off site (Gg C)	0.00	
Delayed emissions from decay (Gg C)	0.00	
Total annual carbon release (Gg C)	0.00	
Total annual CO ₂ emissions (Gg CO ₂)	0.00	

Additional information


Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
NO in Switzerland.

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Abandonment of Managed Lands
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing ⁽¹⁾		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Original natural ecosystems											
Tropical	Wet/Very Moist							0.00	0.00		
	Moist, short dry season							0.00	0.00		
	Moist, long dry season							0.00	0.00		
	Dry							0.00	0.00		
	Montane Moist							0.00	0.00		
	Montane Dry							0.00	0.00		
Tropical Savanna/Grasslands								0.00	0.00		
Temperate	Mixed Broadleaf/Coniferous							0.00	0.00		
	Coniferous							0.00	0.00		
	Broadleaf							0.00	0.00		
Grasslands								0.00	0.00		
Boreal	Mixed Broadleaf/Coniferous							0.00	0.00		
	Coniferous							0.00	0.00		
	Forest-tundra							0.00	0.00		
Grasslands/Tundra								0.00	0.00		
Other (please specify) 								0.00	0.00		
								0.00	0.00		
Total annual carbon uptake (Gg C)										0.00	
Total annual CO ₂ removal (Gg CO ₂)										0.00	

⁽¹⁾ If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:											
The information of the table above is included in the calculations of table 5.A.											
All abandoned land is transformed into forests.											

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
CO₂ Emissions and Removals from Soil
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils ⁽¹⁾			0.00
High Activity Soils		0.00	
Low Activity Soils		0.00	
Sandy		0.00	
Volcanic		0.00	
Wetland (Aquic)		0.00	
Other (please specify) <input type="checkbox"/>			0.00
		0.00	
	Land area (ha)	Annual loss rate (Mg C/ha/yr)	Carbon emissions from organic soils (Mg C/yr)
Cultivation of Organic Soils			0.00
Cool Temperate			0.00
Upland Crops		0.00	
Pasture/Forest		0.00	
Warm Temperate			0.00
Upland Crops		0.00	
Pasture/Forest		0.00	
Tropical			0.00
Upland Crops		0.00	
Pasture/Forest		0.00	
	Total annual amount of lime (Mg)	Carbon conversion factor	Carbon emissions from liming (Mg C)
Liming of Agricultural Soils			0.00
Limestone Ca(CO ₃)		0.00	
Dolomite CaMg(CO ₃) ₂		0.00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0.00
Total annual net CO ₂ emissions from agriculturally impacted soils (Gg CO ₂)	0.00

⁽¹⁾ The information to be reported under Cultivation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:
No data available for CO ₂ emissions and removals from soil (NE).

Additional information

Year	Climate ^(a)	land-use/ management system ^(a)	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
20 years prior	(e.g. tropical, dry)	(e.g. savanna)						
		(e.g. irrigated cropping)						
inventory year								




^(a) These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	NO _x	CO	NMVOC	SO ₂
	(Gg)						
Total Waste	1'394.00	63.62	0.31	5.52	3.85	1.36	2.34
A. Solid Waste Disposal on Land	134.00	61.90		0.53	1.17	0.80	0.04
1. Managed Waste Disposal on Land	134.00	61.90		0.53	1.17	0.80	0.035
2. Unmanaged Waste Disposal Sites	0.00	0.00		0.00	0.00	0.00	0
3. Other (<i>please specify</i>) 	0.00	0.00		0.00	0.00	0.00	0
B. Wastewater Handling		1.57	0.07	0.56	0.41	0.01	1.28
1. Industrial Wastewater (see following line)		0.00	0.00	0.00	0.00	0.00	0
2. Domestic, Commercial, Industrial Wastewater		1.57	0.07	0.56	0.41	0.01	1.28
3. Other (<i>please specify</i>) 		0.00	0.00	0.00	0.00	0.00	0
C. Waste Incineration	1'260.00	0.15	0.24	4.43	2.27	0.51	1.02
D. Other (<i>please specify</i>) 	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Shredder	0.00	0.00	0.00	0.00	0.00	0.05	0.00

⁽¹⁾ Note that CO₂ from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS ⁽¹⁾	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH ₄ recovery ⁽²⁾ (Gg)	CH ₄ (t /t MSW)	CO ₂ (t /t MSW)	CH ₄ (Gg)	CO ₂ ⁽³⁾ (Gg)
1. Managed Waste Disposal on Land					0.00	0.00	61.90	134.00
2. Unmanaged Waste Disposal Sites					0.00	0.00	0.00	0.00
- deep (>5 m)					0.00	0.00		
- shallow (<5 m)					0.00	0.00		
3. Other (<i>please specify</i>)							0.00	0.00
					0.00	0.00		

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO ₂ (kg/t waste)	CH ₄ (kg/t waste)	N ₂ O (kg/t waste)	CO ₂ ⁽³⁾ (Gg)	CH ₄ (Gg)	N ₂ O (Gg)
Waste Incineration (<i>please specify</i>)	2'400.00				1'260.00	0.15	0.24
(<i>biogenic</i>) ⁽³⁾		0.00	0.00	0.00	1'220.00		
(<i>plastics and other non-biogenic waste</i>) ⁽³⁾		0.00	0.00	0.00	1'260.00	0.15	0.24
		0.00	0.00	0.00			
		0.00	0.00	0.00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

⁽¹⁾ Actual emissions (after recovery).

⁽²⁾ CH₄ recovered and flared or utilized.

⁽³⁾ Under Waste Disposal, CO₂ emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice.

CO₂ emissions from non-biogenic wastes are included in the totals, while the CO₂ emissions from biogenic wastes are not included in the totals.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.
<u>Waste disposal</u> : specific model. Description (in German) included at the end of the submission.
<u>Waste incineration</u> : Incineration of several different types of waste, aggregated: incineration of domestic and industrial wastes; incineration of sewage sludge, black liquor (paper pulp), waste incineration at construction sites. Since 1.1.2000 all waste, which can be burnt, may not be deposited. Since the main purpose of waste incineration is eliminating the waste, all waste incineration plants are considered in table 6. Waste incineration plants in Switzerland are normally equipped with energy recovery appliances (at about 40% of the produced energy is used as heating or electric energy).

Additional information

Description	Value
Total population (1000s) ^(a)	7'120.00
Urban population (1000s) ^(a)	
Waste generation rate (kg/capita/day)	1.68
Fraction of MSW disposed to SWDS	0.11
Fraction of DOC in MSW	
Fraction of wastes incinerated	0.46
Fraction of wastes recycled	0.44
CH ₄ oxidation factor (b)	
CH ₄ fraction in landfill gas	
Number of SWDS recovering CH ₄	13.00
CH ₄ generation rate constant (k) ^(c)	see annex
Time lag considered (yr) ^(c)	see annex
Composition of landfilled waste (%)	
Paper and paperboard	28
Food and garden waste	27
Plastics	14
Glass	3
Textiles	3
Other (<i>specify</i>)	
other - inert	25
other - organic	0


^(a) Specify whether total or urban population is used and the rationale for doing so.

^(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

^(c) For Parties using Tier 2 methods.

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION ⁽¹⁾				IMPLIED EMISSION FACTOR			EMISSIONS ⁽²⁾		
	Total organic product		CH ₄ recovered and/or flared		CH ₄		N ₂ O ⁽³⁾ (kg/kg DC)	CH ₄		N ₂ O ⁽³⁾ (Gg)
	Wastewater	Sludge	Wastewater	Sludge	Wastewater (kg/kg DC)	Sludge (kg/kg DC)		Wastewater (Gg)	Sludge (Gg)	
	(Gg DC ⁽¹⁾ /yr)		(Gg)							
Industrial Wastewater					0.00	0.00				
Domestic and Commercial Wastewater					0.00	0.00		1.57		0.07
Other (please specify) 								0.00	0.00	0.00
					0.00	0.00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Urban (=total) Population ⁽⁴⁾ (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N ₂ O (kg N ₂ O-N/kg sewage N produced)	N ₂ O (Gg)
N ₂ O from human sewage ⁽³⁾				0.00	

⁽¹⁾ DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).



⁽²⁾ Actual emissions (after recovery).


⁽³⁾ Parties using other methods for estimation of N₂O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

⁽⁴⁾ Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Additional information

	Domestic	Industrial
Total wastewater (m ³):		
Treated wastewater (%):	100.00	100.00

Wastewater streams:	Wastewater output (m ³)	DC (kgCOD/m ³)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other (specify) 		
DC (kg BOD/1000 person/yr)		
Domestic and Commercial		
Other 		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other (specify) 				

Documentation box:

Domestic and industrial wastewater are treated in the same wastewater treatment installations. The raw emission factors are emission factors per capita (14 m3 of CH4, 0.01 kg N2O per inhabitant). Waste gas energy recovery appliances reduce the emission factors of CH4. Emissions are calculated as follows: Number of attached inhabitants multiplied with the emission factors for CH4 and N2O. In Switzerland practically all inhabitants are attached to wastewater treatment installations. Since the main purpose of waste incineration is eliminating the waste, all waste incineration plants are considered in table 6.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)

(Sheet 1 of 3)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂	CO ₂	CH ₄	N ₂ O	HFCs ⁽¹⁾		PFCs ⁽¹⁾		SF ₆		NO _x	CO	NM VOC	SO ₂
		emissions	removals			P	A	P	A	P	A				
		(Gg)				CO ₂ equivalent (Gg)				(Gg)					
Total National Emissions and Removals		44'809.35	-6'109.00	219.53	11.60	0.00	468.38	0.00	70.25	0.00	0.01	104.94	433.42	174.66	27.57
1. Energy		41'211.35		18.43	2.25							99.05	418.55	58.09	21.95
A. Fuel Combustion	Reference Approach ⁽²⁾	41'274.57													
	Sectoral Approach ⁽²⁾	41'138.35		5.95	2.25							98.90	418.52	50.87	21.95
1. Energy Industries		1'423.10		0.08	0.01							1.46	0.29	0.06	1.74
2. Manufacturing Industries and Construction		4'893.30		0.43	0.03							9.64	16.38	0.45	4.90
3. Transport		14'690.00		2.46	2.01							59.76	264.38	35.95	2.18
4. Other Sectors		19'400.95		2.62	0.18							20.18	85.17	7.34	12.94
5. Other		731.00		0.36	0.03							7.87	52.30	7.07	0.19
B. Fugitive Emissions from Fuels		73.00		12.48	0.00							0.15	0.03	7.22	0.00
1. Solid Fuels		0.00		0.00	0.00							0.00	0.00	0.00	0.00
2. Oil and Natural Gas		73.00		12.48	0.00							0.15	0.03	7.22	0.00
2. Industrial Processes		2'204.00		0.42	0.31	0.00	468.38	0.00	70.25	0.00	0.01	0.32	10.92	7.75	3.25
A. Mineral Products		2'071.00		0.02	0.00							0.01	2.08	3.46	2.24
B. Chemical Industry		13.00		0.39	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.02	1.16	0.29	0.50
C. Metal Production		119.00		0.00	0.00				62.64		0.00	0.19	2.34	0.31	0.32
D. Other Production ⁽³⁾		0.00										0.00	0.00	0.00	0.00
E. Production of Halocarbons and SF ₆							0.00		0.00		0.00				
F. Consumption of Halocarbons and SF ₆						0.00	468.38	0.00	7.61	0.00	0.01				
G. Other		1.00		0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	5.35	3.69	0.19

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

⁽¹⁾ The emissions of HFCs and PFCs are to be expressed as CO₂ equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

⁽²⁾ For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

⁽³⁾ Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

Documentation box:
Data for potential HFC, PFC and SF ₆ emissions: see documentation box Table 2(I)s2.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂	CO ₂	CH ₄	N ₂ O	HFCs ⁽¹⁾		PFCs ⁽¹⁾		SF ₆		NO _x	CO	NMVOC	SO ₂
	emissions	removals			P	A	P	A	P	A				
	(Gg)				CO ₂ equivalent (Gg)				(Gg)					
3. Solvent and Other Product Use	0.00			0.39							0.04	0.09	107.46	0.04
4. Agriculture (one year values)	0.00	0.00	137.06	8.33							0.00	0.00	0.00	0.00
A. Enteric Fermentation			118.01											
B. Manure Management			19.05	1.37									0.00	
C. Rice Cultivation			0.00										0.00	
D. Agricultural Soils	⁽⁴⁾	⁽⁴⁾	0.00	6.96									0.00	
E. Prescribed Burning of Savannas			0.00	0.00							0.00	0.00	0.00	
F. Field Burning of Agricultural Residues			0.00	0.00							0.00	0.00	0.00	
G. Other			0.00	0.00							0.00	0.00	0.00	
5. Land-Use Change and Forestry	⁽⁵⁾ 0.00	⁽⁵⁾ -6'109.00	0.00	0.00							0.00	0.00	0.00	0.00
A. Changes in Forest and Other Woody Biomass Stocks	⁽⁵⁾ 0.00	⁽⁵⁾ -6'109.00												
B. Forest and Grassland Conversion	0.00		0.00	0.00							0.00	0.00		
C. Abandonment of Managed Lands	⁽⁵⁾ 0.00	⁽⁵⁾ 0.00												
D. CO ₂ Emissions and Removals from Soil	⁽⁵⁾ 0.00	⁽⁵⁾ 0.00												
E. Other	⁽⁵⁾ 0.00	⁽⁵⁾ 0.00	0.00	0.00							0.00	0.00		
6. Waste	1'394.00		63.62	0.31							5.52	3.85	1.36	2.34
A. Solid Waste Disposal on Land	⁽⁶⁾ 134.00		61.90								0.53	1.17	0.80	0.04
B. Wastewater Handling			1.57	0.07							0.56	0.41	0.01	1.28
C. Waste Incineration	⁽⁶⁾ 1'260.00		0.15	0.24							4.43	2.27	0.51	1.02
D. Other	0.00		0.00	0.00							0.00	0.00	0.05	0.00
7. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

⁽⁴⁾ According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO₂ emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO₂ emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

⁽⁵⁾ Please do not provide an estimate of both CO₂ emissions and CO₂ removals. "Net" emissions (emissions - removals) of CO₂ should be estimated and a single number placed in either the CO₂ emissions or CO₂ removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

⁽⁶⁾ Note that CO₂ from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ emissions	CO ₂ removals	CH ₄	N ₂ O	HFCs		PFCs		SF ₆		NO _x	CO	NMVOC	SO ₂
					P	A	P	A	P	A				
	(Gg)				CO ₂ equivalent (Gg)				(Gg)					
Memo Items: ⁽⁷⁾														
International Bunkers	4'231.00		0.00	0.00							0.00	0.00	0.00	0.00
Aviation	4'231.00		0.00	0.00							0.00	0.00	0.00	0.00
Marine	0.00		0.00	0.00							0.00	0.00	0.00	0.00
Multilateral Operations	0.00		0.00	0.00							0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass (only from energy wood)	1'926.00													

⁽⁷⁾ Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ emissions	CO ₂ removals	CH ₄	N ₂ O	HFCs ⁽¹⁾		PFCs ⁽¹⁾		SF ₆		NO _x	CO	NM VOC	SO ₂
					P	A	P	A	P	A				
	(Gg)				CO ₂ equivalent (Gg)				(Gg)					
Total National Emissions and Removals	44'809.35	-6'109.00	219.53	11.60	0.00	468.38	0.00	70.25	0.00	0.01	104.94	433.42	174.66	27.57
1. Energy	41'211.35		18.43	2.25							99.05	418.55	58.09	21.95
A. Fuel Combustion	Reference Approach ⁽²⁾	41'274.57												
	Sectoral Approach ⁽²⁾	41'138.35	5.95	2.25							98.90	418.52	50.87	21.95
B. Fugitive Emissions from Fuels		73.00	12.48	0.00							0.15	0.03	7.22	0.00
2. Industrial Processes	2'204.00		0.42	0.31	0.00	468.38	0.00	70.25	0.00	0.01	0.32	10.92	7.75	3.25
3. Solvent and Other Product Use	0.00			0.39							0.04	0.09	107.46	0.04
4. Agriculture⁽³⁾	0.00	0.00	137.06	8.33							0.00	0.00	0.00	0.00
5. Land-Use Change and Forestry	⁽⁴⁾ 0.00	⁽⁴⁾ -6'109.00	0.00	0.00							0.00	0.00	0.00	0.00
6. Waste	1'394.00		63.62	0.31							5.52	3.85	1.36	2.34
7. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Memo Items:														
International Bunkers	4'231.00		0.00	0.00							0.00	0.00	0.00	0.00
Aviation				0.00							0.00	0.00	0.00	0.00
Marine				0.00							0.00	0.00	0.00	0.00
Multilateral Operations	0.00		0.00	0.00							0.00	0.00	0.00	0.00
CO₂ Emissions from Biomass (only from energy wood)	1'926.00													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

⁽¹⁾ The emissions of HFCs and PFCs are to be expressed as CO₂ equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

⁽²⁾ For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table 1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

⁽³⁾ See footnote 4 to Summary 1.A.

⁽⁴⁾ Please do not provide an estimate of both CO₂ emissions and CO₂ removals. "Net" emissions (emissions - removals) of CO₂ should be estimated and a single number placed in either the CO₂ emissions or CO₂ removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

Documentation box:
Data for potential HFC, PFC and SF ₆ emissions: see documentation box Table 2(I)s2.

SUMMARY 2 SUMMARY REPORT FOR CO₂ EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Switzerland
1998
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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ ⁽¹⁾	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	Total
	CO ₂ equivalent (Gg)						
Total (Net Emissions)⁽¹⁾	38'700.35	4'610.15	3'595.13	468.38	70.25	152.96	47'597.22
1. Energy	41'211.35	386.96	698.89				42'297.20
A. Fuel Combustion (Sectoral Approach)	41'138.35	124.98	698.89				41'962.23
1. Energy Industries	1'423.10	1.77	2.02				1'426.89
2. Manufacturing Industries and Construction	4'893.30	9.06	10.00				4'912.36
3. Transport	14'690.00	51.59	622.67				15'364.26
4. Other Sectors	19'400.95	55.01	55.83				19'511.79
5. Other	731.00	7.56	8.37				746.93
B. Fugitive Emissions from Fuels	73.00	261.98	0.00				334.98
1. Solid Fuels	0.00	0.00	0.00				0.00
2. Oil and Natural Gas	73.00	261.98	0.00				334.98
2. Industrial Processes	2'204.00	8.80	96.72	468.38	70.25	152.96	3'001.11
A. Mineral Products	2'071.00	0.36	0.00				2'071.36
B. Chemical Industry	13.00	8.09	96.72	0.00	0.00	0.00	117.81
C. Metal Production	119.00	0.00	0.00		62.64	14.34	195.98
D. Other Production	0.00						0.00
E. Production of Halocarbons and SF ₆				0.00	0.00	0.00	0.00
F. Consumption of Halocarbons and SF ₆				468.38	7.61	138.62	614.61
G. Other	1.00	0.36	0.00	0.00	0.00	0.00	1.36
3. Solvent and Other Product Use	0.00		120.28				120.28
4. Agriculture (no 3 year average)	0.00	2'878.33	2'582.52				5'460.85
A. Enteric Fermentation		2'478.22					2'478.22
B. Manure Management		400.11	423.46				823.57
C. Rice Cultivation		0.00					0.00
D. Agricultural Soils ⁽²⁾		0.00	2'159.06				2'159.06
E. Prescribed Burning of Savannas		0.00	0.00				0.00
F. Field Burning of Agricultural Residues		0.00	0.00				0.00
G. Other		0.00	0.00				0.00
5. Land-Use Change and Forestry⁽¹⁾	-6'109.00	0.00	0.00				-6'109.00
6. Waste	1'394.00	1'336.06	96.72				2'826.78
A. Solid Waste Disposal on Land	134.00	1'299.90					1'433.90
B. Wastewater Handling		32.97	22.01				54.98
C. Waste Incineration	1'260.00	3.19	74.71				1'337.90
D. Other	0.00	0.00	0.00				0.00
7. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
							0.00
Memo Items:							
International Bunkers	4'231.00	0.00	0.00				4'231.00
Aviation	4'231.00	0.00	0.00				4'231.00
Marine	0.00	0.00	0.00				0.00
Multilateral Operations	0.00	0.00	0.00				0.00
CO₂ Emissions from Biomass (only from energy wood)	1'926.00						1'926.00

⁽¹⁾ For CO₂ emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂ emissions	CO ₂ removals	Net CO ₂ emissions / removals	CH ₄	N ₂ O	Total emissions
Land-Use Change and Forestry	CO ₂ equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0.00	-6'109.00	-6'109.00			-6'109.00
B. Forest and Grassland Conversion	0.00		0.00	0.00	0.00	0.00
C. Abandonment of Managed Lands	0.00	0.00	0.00			0.00
D. CO ₂ Emissions and Removals from Soil	0.00	0.00	0.00			0.00
E. Other	0.00	0.00	0.00	0.00	0.00	0.00
Total CO ₂ Equivalent Emissions from Land-Use Change and Forestry	0.00	-6'109.00	-6'109.00	0.00	0.00	-6'109.00
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ^(a)						53'706.22
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ^(a)						47'597.22

^(a) The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆	
	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾
1. Energy												
A. Fuel Combustion												
1. Energy Industries	RA, C	RA, CS	C	CS	C	D						
2. Manufacturing Industries and Construction	C	CS	C	CS	C	D						
3. Transport	CS	CS	CS	CS	CS	CS						
4. Other Sectors	C	CS	C	CS	C	D						
5. Other	C	CS	C	CS	C	D						
B. Fugitive Emissions from Fuels												
1. Solid Fuels												
2. Oil and Natural Gas	C	CS	C	CS								
2. Industrial Processes												
A. Mineral Products	C	C	C	C								
B. Chemical Industry	C	C	C	C	C	C						
C. Metal Production	C	C							T1c	M	T1c	M
D. Other Production		C										
E. Production of Halocarbons and SF ₆									T1c	M	T1c	M
F. Consumption of Halocarbons and SF ₆							T2	M	T2	M	T2	M
G. Other	C	C	C	C	C	C						

⁽¹⁾ Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

⁽²⁾ Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆	
	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾	Method applied ⁽¹⁾	Emission factor ⁽²⁾
3. Solvent and Other Product Use	CS	CS			CS	CS						
4. Agriculture												
A. Enteric Fermentation			CS	CS								
B. Manure Management			CS	CS								
C. Rice Cultivation												
D. Agricultural Soils			CS	CS								
E. Prescribed Burning of Savannas												
F. Field Burning of Agricultural Residues			CS	CS								
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS	CS										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO ₂ Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	CS	CS	CS	CS								
B. Wastewater Handling			CS	CS	CS	CS						
C. Waste Incineration	CS	CS	CS	CS	CS	CS						
D. Other	CS	CS	CS	CS	CS	CS						
7. Other (please specify) 												

TABLE 7 OVERVIEW TABLE⁽¹⁾ FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

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1998
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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆		NO _x		CO		NMVOC		SO ₂	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals		H		M		M								M		M		M		M
1 Energy	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
1. Energy Industries	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
3. Transport	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
4. Other Sectors	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
5. Other	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
B. Fugitive Emissions from Fuels	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
1. Solid Fuels	NO		NO		NO															
2. Oil and Natural Gas	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
2 Industrial Processes	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
A. Mineral Products	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
B. Chemical Industry	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
C. Metal Production	ALL	H	ALL	M	ALL	M			ALL	M	ALL	M	ALL	M	ALL	M	ALL	M	ALL	M
D. Other Production																				
E. Production of Halocarbons and SF ₆																				

⁽¹⁾ This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆		NO _x		CO		NMVOC		SO ₂	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF ₆																				
Potential ⁽²⁾							ALL	M	ALL	M	ALL	M								
Actual ⁽³⁾							ALL	M	ALL	M	ALL	M								
G. Other	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
3 Solvent and Other Product Use	NO				ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
4 Agriculture			ALL	M	ALL	L							ALL	M	ALL	M	ALL	M	ALL	M
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	L	ALL	L											NO			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NO		ALL	L	ALL	L											NO			
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other			NO		NO								NO		NO		NO		NO	
5 Land-Use Change and Forestry	PART	H	NO		NO								NO		NO		NO		NO	
A. Changes in Forest and Other Woody Biomass Stocks	ALL	H																		
B. Forest and Grassland Conversion	NO		NO		NO								NO		NO		NO			

⁽²⁾ Potential emissions based on Tier 1 approach of the IPCC Guidelines.

⁽³⁾ Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆		NO _x		CO		NMVOC		SO ₂	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands	IE																			
D. CO ₂ Emissions and Removals from Soil	NE																			
E. Other	NO		NO		NO								NO		NO		NO		NO	
6 Waste	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
A. Solid Waste Disposal on Land	ALL	H	ALL	M									ALL	M	ALL	M	ALL	M	ALL	M
B. Wastewater Handling			ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
C. Waste Incineration	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
D. Other	NO		NO		NO								NO		ALL	M	ALL	M	NO	
7 Other (please specify)																				
Memo Items:																				
International Bunkers	ALL	M	NE		NE								NE		NE		NE		NE	
Aviation	ALL	M	NE		NE								NE		NE		NE		NE	
Marine	NO		NO		NO								NO		NO		NO		NO	
Multilateral Operations	NO		NO		NO								NO		NO		NO		NO	
CO₂ Emissions from Biomass	ALL	H																		

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1990

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		40'680.00	40'050.00	-1.55	5'050.00	5'020.00	-0.59	3'560.00	3'520.00	-1.12
1. Energy		40'362.00	39'729.00	-1.57	494.70	458.70	-7.28	429.60	381.70	-11.15
1.A.	Fuel Combustion Activities	40'306.00	39'673.00	-1.57	187.70	151.70	-19.18	429.60	381.70	-11.15
1.A.1.	Energy Industries	963.00	891.00	-7.48	1.00	1.00	0.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	5'406.00	5'237.00	-3.13	6.70	7.70	14.93	9.60	10.70	11.46
1.A.3.	Transport	14'643.00	14'144.00	-3.41	94.00	82.00	-12.77	351.00	305.00	-13.11
1.A.4.	Other Sectors	18'322.00	18'631.00	1.69	78.00	53.00	-32.05	58.00	55.00	-5.17
1.A.5.	Other	972.00	770.00	-20.78	8.00	8.00	0.00	9.00	9.00	0.00
1.B.	Fugitive Emissions from Fuels	56.00	56.00	0.00	307.00	307.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	56.00	56.00	0.00	307.00	307.00	0.00	0.00	0.00	0.00
2. Industrial Processes		3'363.00	3'363.00	0.00	9.00	9.00	0.00	99.00	99.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				108.00	108.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'108.00	3'171.00	2.03	2'862.00	2'862.00	0.00
4.A.	Enteric Fermentation				2'734.00	2'734.00	0.00			
4.B.	Manure Management				437.00	437.00	0.00	458.00	458.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00	-67.00		-100.00	2'404.00	2'404.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00		-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-4'360.00	-4'343.00	-0.39	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'360.00	-4'343.00	-0.39						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1990

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste			1'317.00	1'317.00	0.00	1'441.00	1'441.00	0.00	68.00	68.00	0.00
6.A.	Solid Waste Disposal on Land		137.00	137.00	0.00	1'405.00	1'405.00	0.00			
6.B.	Wastewater Handling					28.00	28.00	0.00	19.00	19.00	0.00
6.C.	Waste Incineration		1'180.00	1'180.00	0.00	8.00	8.00	0.00	49.00	49.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify)					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'160.00	3'205.00	48.38	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF ₆		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions					0.00			0.00			0.00
2.C.3.	Aluminium Production							0.00			0.00
2.E.	Production of Halocarbons and SF ₆				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆											
			Previous submission		Latest submission	Difference ⁽¹⁾					
			CO ₂ equivalent (Gg)		(%)						
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾			49'300		48'663	-1.29			without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾			53'660		53'005	-1.22			without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1991

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		42'220.00	41'900.00	-0.76	5'070.00	5'040.00	-0.59	3'590.00	3'550.00	-1.11
1. Energy		42'240.00	41'924.00	-0.75	492.80	459.70	-6.72	470.70	427.90	-9.09
1.A.	Fuel Combustion Activities	42'170.00	41'854.00	-0.75	185.80	152.70	-17.81	470.70	427.90	-9.09
1.A.1.	Energy Industries	1'297.00	1'201.00	-7.40	1.60	1.40	-12.50	2.50	2.30	-8.00
1.A.2.	Manufacturing Industries and Construction	5'523.00	5'410.00	-2.05	7.20	8.30	15.28	10.20	11.60	13.73
1.A.3.	Transport	15'199.00	14'668.00	-3.49	90.00	78.00	-13.33	389.00	350.00	-10.03
1.A.4.	Other Sectors	19'186.00	19'810.00	3.25	79.00	59.00	-25.32	60.00	57.00	-5.00
1.A.5.	Other	965.00	765.00	-20.73	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	70.00	70.00	0.00	307.00	307.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	70.00	70.00	0.00	307.00	307.00	0.00	0.00	0.00	0.00
2. Industrial Processes		3'034.00	3'034.00	0.00	9.00	9.00	0.00	99.00	99.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				110.00	110.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'140.00	3'203.00	2.01	2'839.00	2'839.00	0.00
4.A.	Enteric Fermentation				2'765.00	2'765.00	0.00			
4.B.	Manure Management				438.00	438.00	0.00	452.00	452.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00	-67.00	0.00	-100.00	2'387.00	2'387.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-4'380.00	-4'404.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'380.00	-4'404.00	0.55						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:


1991

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
CO ₂ equivalent (Gg)			(%)	CO ₂ equivalent (Gg)			(%)	CO ₂ equivalent (Gg)			(%)
6. Waste			1'327.00	1'327.00	0.00	1'433.00	1'433.00	0.00	72.00	72.00	0.00
6.A.	Solid Waste Disposal on Land		137.00	137.00	0.00	1'397.00	1'397.00	0.00			
6.B.	Wastewater Handling					29.00	29.00	0.00	20.00	20.00	0.00
6.C.	Waste Incineration		1'190.00	1'190.00	0.00	7.00	7.00	0.00	52.00	52.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify) 					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'200.00	3'105.00	41.14	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF ₆		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions				0.00			0.00			0.00
2.C.3.	Aluminium Production						0.00			0.00
2.E.	Production of Halocarbons and SF ₆			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆										
				Previous submission		Latest submission		Difference ⁽¹⁾		
				CO ₂ equivalent (Gg)				Difference ⁽¹⁾		
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾				50'880		50'530		-0.69 without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾				55'260		54'935		-0.59 without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1992

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		41'910.00	41'560.00	-0.84	5'020.00	4'990.00	-0.60	3'600.00	3'570.00	-0.83
1. Energy		42'264.00	41'917.00	-0.82	476.00	440.00	-7.56	509.00	475.00	-6.68
1.A.	Fuel Combustion Activities	42'193.00	41'846.00	-0.82	179.00	143.00	-20.11	509.00	475.00	-6.68
1.A.1.	Energy Industries	1'420.00	1'280.00	-9.86	2.00	2.00	0.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	5'137.00	4'994.00	-2.78	7.00	8.00	14.29	9.00	10.00	11.11
1.A.3.	Transport	15'554.00	14'983.00	-3.67	86.00	71.00	-17.44	429.00	399.00	-6.99
1.A.4.	Other Sectors	19'124.00	19'830.00	3.69	76.00	56.00	-26.32	60.00	57.00	-5.00
1.A.5.	Other	958.00	759.00	-20.77	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	71.00	71.00	0.00	297.00	297.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	71.00	71.00	0.00	297.00	297.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'736.00	2'736.00	0.00	9.00	9.00	0.00	99.00	99.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				112.00	112.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'114.00	3'177.00	2.02	2'807.00	2'807.00	0.00
4.A.	Enteric Fermentation				2'744.00	2'744.00	0.00			
4.B.	Manure Management				433.00	433.00	0.00	445.00	445.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00	-67.00	0.00	-100.00	2'362.00	2'362.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-4'430.00	-4'527.00	2.19	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'430.00	-4'527.00	2.19						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1992

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste			1'337.00	1'337.00	0.00	1'424.00	1'424.00	0.00	75.00	75.00	0.00
6.A.	Solid Waste Disposal on Land		137.00	137.00	0.00	1'388.00	1'388.00	0.00			
6.B.	Wastewater Handling					29.00	29.00	0.00	20.00	20.00	0.00
6.C.	Waste Incineration		1'200.00	1'200.00	0.00	7.00	7.00	0.00	55.00	55.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify)					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'240.00	3'300.00	47.32	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF ₆		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions					0.00			0.00			0.00
2.C.3.	Aluminium Production							0.00			0.00
2.E.	Production of Halocarbons and SF ₆				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆											
			Previous submission		Latest submission	Difference ⁽¹⁾					
			CO ₂ equivalent (Gg)		(%)						
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾			50'530		50'080	-0.89			without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾			54'960		54'610	-0.64			without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1993

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		38'760.00	38'400.00	-0.93	4'980.00	4'940.00	-0.80	3'620.00	3'580.00	-1.10
1. Energy		40'034.00	39'682.00	-0.88	463.00	426.00	-7.99	547.00	506.00	-7.50
1.A.	Fuel Combustion Activities	39'963.00	39'611.00	-0.88	174.00	137.00	-21.26	547.00	506.00	-7.50
1.A.1.	Energy Industries	1'051.00	962.00	-8.47	1.00	1.00	0.00	1.00	1.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'964.00	4'862.00	-2.05	7.00	9.00	28.57	8.00	10.00	25.00
1.A.3.	Transport	14'568.00	13'933.00	-4.36	82.00	66.00	-19.51	471.00	433.00	-8.07
1.A.4.	Other Sectors	18'430.00	19'100.00	3.64	76.00	55.00	-27.63	58.00	55.00	-5.17
1.A.5.	Other	950.00	754.00	-20.63	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	71.00	71.00	0.00	289.00	289.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	71.00	71.00	0.00	289.00	289.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'548.00	2'548.00	0.00	9.00	9.00	0.00	97.00	97.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				114.00	114.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'093.00	3'156.00	2.04	2'786.00	2'786.00	0.00
4.A.	Enteric Fermentation				2'727.00	2'727.00	0.00			
4.B.	Manure Management				429.00	429.00	0.00	443.00	443.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00	-67.00	0.00	-100.00	2'343.00	2'343.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-5'160.00	-5'718.00	10.81	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'160.00	-5'718.00	10.81						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1993

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste			1'336.00	1'336.00	0.00	1'414.00	1'414.00	0.00	78.00	78.00	0.00
6.A.	Solid Waste Disposal on Land		136.00	136.00	0.00	1'378.00	1'378.00	0.00			
6.B.	Wastewater Handling					30.00	30.00	0.00	20.00	20.00	0.00
6.C.	Waste Incineration		1'200.00	1'200.00	0.00	6.00	6.00	0.00	58.00	58.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify)					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'290.00	3'440.00	50.22	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF ₆		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions					0.00			0.00			0.00
2.C.3.	Aluminium Production							0.00			0.00
2.E.	Production of Halocarbons and SF ₆				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆											
			Previous submission		Latest submission	Difference ⁽¹⁾					
			CO ₂ equivalent (Gg)		(%)						
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾			47'360		46'430	-1.96			without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾			52'520		52'150	-0.70			without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year: 1994

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		38'140.00	37'780.00	-0.94	4'890.00	4'850.00	-0.82	3'630.00	3'590.00	-1.10
1. Energy		39'226.00	38'861.00	-0.93	448.00	407.00	-9.15	583.00	544.00	-6.69
1.A.	Fuel Combustion Activities	39'154.00	38'789.00	-0.93	169.00	128.00	-24.26	583.00	544.00	-6.69
1.A.1.	Energy Industries	1'006.00	1'039.00	3.28	1.00	1.00	0.00	1.00	1.00	0.00
1.A.2.	Manufacturing Industries and Construction	5'007.00	4'861.00	-2.92	7.00	8.00	14.29	8.00	9.00	12.50
1.A.3.	Transport	14'832.00	14'117.00	-4.82	79.00	61.00	-22.78	510.00	474.00	-7.06
1.A.4.	Other Sectors	17'366.00	18'023.00	3.78	74.00	52.00	-29.73	55.00	53.00	-3.64
1.A.5.	Other	943.00	749.00	-20.57	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	72.00	72.00	0.00	279.00	279.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	72.00	72.00	0.00	279.00	279.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'731.00	2'731.00	0.00	9.00	9.00	0.00	97.00	97.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				117.00	117.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'031.00	3'094.00	2.08	2'751.00	2'751.00	0.00
4.A.	Enteric Fermentation				2'674.00	2'674.00	0.00			
4.B.	Manure Management				420.00	420.00	0.00	437.00	437.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00	-67.00	0.00	-100.00	2'314.00	2'314.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-5'150.00	-5'757.00	11.79	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'150.00	-5'757.00	11.79						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1994

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste			1'336.00	1'336.00	0.00	1'406.00	1'406.00	0.00	83.00	83.00	0.00
6.A.	Solid Waste Disposal on Land		136.00	136.00	0.00	1'369.00	1'369.00	0.00			
6.B.	Wastewater Handling					31.00	31.00	0.00	20.00	20.00	0.00
6.C.	Waste Incineration		1'200.00	1'200.00	0.00	6.00	6.00	0.00	62.00	62.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify)					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'330.00	3'550.00	52.36	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF ₆		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions					0.00			0.00			0.00
2.C.3.	Aluminium Production							0.00			0.00
2.E.	Production of Halocarbons and SF ₆				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆											
			Previous submission		Latest submission	Difference ⁽¹⁾					
			CO ₂ equivalent (Gg)		(%)						
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾			46'670		45'680	-2.12			without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾			51'820		51'435	-0.74			without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1995

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		39'040.00	38'710.00	-0.85	4'870.00	4'830.00	-0.82	3'640.00	3'580.00	-1.65
1. Energy		40'173.00	39'837.00	-0.84	432.30	394.90	-8.65	627.20	571.30	-8.91
1.A.	Fuel Combustion Activities	40'100.00	39'764.00	-0.84	164.30	126.90	-22.76	627.20	571.30	-8.91
1.A.1.	Energy Industries	1'150.00	1'094.00	-4.87	1.70	1.60	-5.88	1.60	1.30	-18.75
1.A.2.	Manufacturing Industries and Construction	5'170.00	5'098.00	-1.39	7.60	7.30	-3.95	8.60	8.00	-6.98
1.A.3.	Transport	14'550.00	13'815.00	-5.05	74.00	57.00	-22.97	551.00	500.00	-9.26
1.A.4.	Other Sectors	18'290.00	19'013.00	3.95	73.00	55.00	-24.66	57.00	55.00	-3.51
1.A.5.	Other	940.00	744.00	-20.85	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	268.00	268.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	73.00	73.00	0.00	268.00	268.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'622.00	2'622.00	0.00	8.00	8.00	0.00	97.00	97.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				119.00	119.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	3'033.00	3'096.00	2.08	2'710.00	2'710.00	0.00
4.A.	Enteric Fermentation				2'681.00	2'681.00	0.00			
4.B.	Manure Management				415.00	415.00	0.00	432.00	432.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00			0.00	2'278.00	2'278.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-5'100.00	-5'729.00	12.33	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'100.00	-5'729.00	12.33						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated
(Sheet 2 of 2)


year:

1995

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO ₂			CH ₄			N ₂ O		
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste			1'346.00	1'346.00	0.00	1'397.00	1'397.00	0.00	87.00	87.00	0.00
6.A.	Solid Waste Disposal on Land		136.00	136.00	0.00	1'361.00	1'361.00	0.00			
6.B.	Wastewater Handling					31.00	31.00	0.00	21.00	21.00	0.00
6.C.	Waste Incineration		1'210.00	1'210.00	0.00	5.00	5.00	0.00	66.00	66.00	0.00
6.D.	Other				0.00			0.00			0.00
7. Other (please specify) 					0.00			0.00			0.00
					0.00			0.00			0.00
Memo Items:											
International Bunkers			2'430.00	3'770.00	55.14	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF ₆						
			Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾				
			CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)				
Total Actual Emissions					0.00			0.00			0.00				
2.C.3.	Aluminium Production							0.00			0.00				
2.E.	Production of Halocarbons and SF ₆				0.00			0.00			0.00				
2.F.	Consumption of Halocarbons and SF ₆				0.00			0.00			0.00				
	Other				0.00			0.00			0.00				
Potential Emissions from Consumption of HFCs/PFCs and SF ₆															
						Previous submission		Latest submission		Difference ⁽¹⁾					
						CO ₂ equivalent (Gg)				(%)					
						Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾				47'550		46'555		-2.09	
						Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾				52'650		52'285		-0.69	

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year: 1996

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		39'500.00	38'970.00	-1.34	4'800.00	4'770.00	-0.62	3'640.00	3'580.00	-1.65
1. Energy		41'157.00	40'627.00	-1.29	425.00	392.50	-7.65	650.30	595.50	-8.43
1.A.	Fuel Combustion Activities	41'084.00	40'554.00	-1.29	159.00	126.50	-20.44	650.30	595.50	-8.43
1.A.1.	Energy Industries	950.00	1'267.00	33.37	1.00	1.50	50.00	1.30	1.50	15.38
1.A.2.	Manufacturing Industries and Construction	5'246.00	4'853.00	-7.49	8.00	8.00	0.00	9.00	8.00	-11.11
1.A.3.	Transport	14'657.00	13'885.00	-5.27	71.00	53.00	-25.35	573.00	522.00	-8.90
1.A.4.	Other Sectors	19'302.00	19'810.00	2.63	71.00	58.00	-18.31	58.00	57.00	-1.72
1.A.5.	Other	929.00	739.00	-20.45	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	266.00	266.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	73.00	73.00	0.00	266.00	266.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'220.00	2'220.00	0.00	9.00	9.00	0.00	97.00	97.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				119.00	119.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	2'989.00	3'052.00	2.11	2'681.00	2'681.00	0.00
4.A.	Enteric Fermentation				2'646.00	2'646.00	0.00			
4.B.	Manure Management				406.00	406.00	0.00	429.00	429.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00			0.00	2'252.00	2'252.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-5'240.00	-5'925.00	13.07	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'240.00	-5'925.00	13.07						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1996

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste		1'365.00	1'365.00	0.00	1'376.00	1'376.00	0.00	90.00	90.00	0.00
6.A.	Solid Waste Disposal on Land	135.00	135.00	0.00	1'340.00	1'340.00	0.00			
6.B.	Wastewater Handling				32.00	32.00	0.00	21.00	21.00	0.00
6.C.	Waste Incineration	1'230.00	1'230.00	0.00	5.00	5.00	0.00	69.00	69.00	0.00
6.D.	Other			0.00			0.00			0.00
7. Other (please specify)				0.00			0.00			0.00
				0.00			0.00			0.00
Memo Items:										
International Bunkers		2'520.00	3'900.00	54.76	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass				0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF ₆		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions				0.00			0.00			0.00
2.C.3.	Aluminium Production						0.00			0.00
2.E.	Production of Halocarbons and SF ₆			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆										
		Previous submission		Latest submission		Difference ⁽¹⁾				
		CO ₂ equivalent (Gg)				(%)				
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾		47'940		46'700		-2.59		without new gases		
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾		53'180		52'625		-1.04		without new gases		

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1997

(Sheet 1 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total National Emissions and Removals		38'006.00	38'190.00	0.48	4'714.00	4'686.00	-0.59	3'612.00	3'553.00	-1.63
1. Energy		39'784.00	39'967.00	0.46	411.50	383.50	-6.80	666.40	607.20	-8.88
1.A.	Fuel Combustion Activities	39'711.00	39'894.00	0.46	147.50	119.50	-18.98	666.40	607.20	-8.88
1.A.1.	Energy Industries	1'185.00	1'176.00	-0.76	1.50	1.50	0.00	1.40	1.20	-14.29
1.A.2.	Manufacturing Industries and Construction	4'628.00	4'736.00	2.33	8.00	8.00	0.00	8.00	8.00	0.00
1.A.3.	Transport	15'279.00	14'462.00	-5.35	68.00	50.00	-26.47	595.00	539.00	-9.41
1.A.4.	Other Sectors	17'698.00	18'785.00	6.14	62.00	54.00	-12.90	53.00	52.00	-1.89
1.A.5.	Other	921.00	735.00	-20.20	8.00	6.00	-25.00	9.00	7.00	-22.22
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	264.00	264.00	0.00	0.00	0.00	0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	73.00	73.00	0.00	264.00	264.00	0.00	0.00	0.00	0.00
2. Industrial Processes		2'207.00	2'207.00	0.00	9.00	9.00	0.00	97.00	97.00	0.00
2.A.	Mineral Products			0.00			0.00			0.00
2.B.	Chemical Industry			0.00			0.00			0.00
2.C.	Metal Production			0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other			0.00			0.00			0.00
3. Solvent and Other Product Use		0.00	0.00	0.00				120.00	120.00	0.00
4. Agriculture (3 year averages)		0.00	0.00	0.00	2'939.00	3'015.00	2.59	2'636.00	2'639.00	0.11
4.A.	Enteric Fermentation				2'606.00	2'606.00	0.00			
4.B.	Manure Management				396.00	409.00	3.28	426.00	427.00	0.23
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils ⁽²⁾			0.00			0.00	2'210.00	2'212.00	0.09
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				4.00	0.00	-100.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
5. Land-Use Change and Forestry (net)		-5'360.00	-6'169.00	15.09	0.00	0.00	0.00	0.00	0.00	0.00
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'360.00	-6'169.00	15.09						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO ₂ Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

⁽¹⁾ Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.

All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1997

(Sheet 2 of 2)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂			CH ₄			N ₂ O		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
6. Waste		1'375.00	1'375.00	0.00	1'355.00	1'355.00	0.00	93.00	93.00	0.00
6.A.	Solid Waste Disposal on Land	135.00	135.00	0.00	1'319.00	1'319.00	0.00			
6.B.	Wastewater Handling				32.00	32.00	0.00	22.00	22.00	0.00
6.C.	Waste Incineration	1'240.00	1'240.00	0.00	4.00	4.00	0.00	72.00	72.00	0.00
6.D.	Other			0.00			0.00			0.00
7. Other (please specify)				0.00			0.00			0.00
				0.00			0.00			0.00
Memo Items:										
International Bunkers		2'630.00	4'050.00	53.99	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ Emissions from Biomass (only fuel combustion)		1'990.00	1'990.00	0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF ₆		
		Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾	Previous submission	Latest submission	Difference ⁽¹⁾
		CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)	CO ₂ equivalent (Gg)		(%)
Total Actual Emissions				0.00			0.00			0.00
2.C.3.	Aluminium Production						0.00			0.00
2.E.	Production of Halocarbons and SF ₆			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF ₆			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF ₆										
				Previous submission			Latest submission			Difference ⁽¹⁾
				CO ₂ equivalent (Gg)			CO ₂ equivalent (Gg)			(%)
Total CO ₂ Equivalent Emissions with Land-Use Change and Forestry ⁽³⁾				46'330			45'700			-1.36
Total CO ₂ Equivalent Emissions without Land-Use Change and Forestry ⁽³⁾				51'690			51'870			0.35

⁽³⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Switzerland
1998
Submission 2000

Specify the sector and source/sink category ⁽¹⁾ where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods ⁽²⁾	Emission factors ⁽²⁾	Activity data ⁽²⁾	
1	Energy	ALL	CS	new heating values		
1	Energy	CO ₂	CS	new CO ₂ emission factors		
1	Energy	ALL	CS		biomass: new energy statistic data	
1.A.1/2	Energy Industries/Manuf. Industries	ALL				autoproducer transferred to 1.A.2
1.A.3	Transport (road traffic)	ALL	recalculation of model			
1.A.3	Transport (bunker emissions)	CO ₂	change of model			
1.A.5	Other	ALL				new allocation of military aviation
4.D/F.	Agricultural Soils/Field Burning Res.	CH ₄				data quality considered inappropriate for reporting
5	Land Use Change and Forestry	CO ₂			Revised Forestry Inventory	













⁽¹⁾ Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

⁽²⁾ Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.
1. Energy: The official Swiss Energy Statistics were revised in 1999. New heating values and CO ₂ emission factors were implemented. The biomass statistics were revised in 1998.
1.A.1./2 Energy industries: With the revised Swiss Energy Statistics autoproducer activities are more transparent and could be allocated correctly, that will say in 1.A.2 "Manufacturing Industries and Construction".
1.A.3. Transport: The road traffic model was revised in January 2000 (new km travelled, new emission factors).
1.A.3. Transport: In the previous submissions domestic aviation included all overflights (old CORINAIR-approach); they are removed now. Bunkers include the statistical difference between apparent consumption and the consumption of the domestic flights; so due to the smaller domestic consumption without overflights, bunker consumption is now higher.
1.A.5. Other: In the previous submissions, military aviation was allocated in this subsector; in the latest submission, military aviation is allocated to 1.A.3. Transport (Civil aviation).
4.D/F. Agricultural Soils/Field Burning Res.: Data quality considered inappropriate for reporting.
5. Land Use Change and Forestry: The data of the revised Swiss National Forest Inventory (NFI) is now fully available. The data of this 2 nd NFI are now implemented back to 1990.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Switzerland
1998
Submission 2000

Sources and sinks not reported (NE) ⁽¹⁾					
GHG	Sector ⁽²⁾	Source/sink category ⁽²⁾	Explanation		
CO ₂		LUCF	5.D.	no data available.	
CH ₄		International Aviation Bunkers		see documentation box table 1.C.	
N ₂ O		International Aviation Bunkers		see documentation box table 1.C.	
HFCs					
PFCs					
SF ₆					
Sources and sinks reported elsewhere (IE) ⁽³⁾					
GHG		Source/sink category	Allocation as per IPCC Guidelines	Allocation used by the Party	Explanation
CO ₂		Waste Incineration (Energy producing part)	1.A.1. Energy Industries	6. Waste	The main purpose of waste incineration is eliminating the waste
		Abandonment of Managed Lands	5.C.	5.A.	In Switzerland abandonment of managed lands only occurs as transformation into forests; so these source/sinks are considered in 5.A.
CH ₄		Waste Incineration (Energy producing part)	1.A.1. Energy Industries	6. Waste	The main purpose of waste incineration is eliminating the waste
N ₂ O		Waste Incineration (Energy producing part)	1.A.1. Energy Industries	6. Waste	The main purpose of waste incineration is eliminating the waste
HFCs					
PFCs					
SF ₆					


⁽¹⁾ Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

⁽²⁾ Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

⁽³⁾ Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Switzerland
1998
Submission 2000

Additional GHG emissions reported ⁽⁴⁾						
GHG 	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO ₂ equivalent (Gg)	Reference to the data source of GWP value	Explanation

⁽⁴⁾ Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 10 EMISSIONS TRENDS (CO₂)
(Sheet 1 of 5)

Switzerland
1998
Submission 2000

	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GREENHOUSE GAS SOURCE AND SINK CATEGORIES											
(Gg)											
1. Energy	0	39'729	41'924	41'917	39'682	38'861	39'837	40'627	39'967	41'211	0
A. Fuel Combustion (Sectoral Approach)	0	39'673	41'854	41'846	39'611	38'789	39'764	40'554	39'894	41'138	0
1. Energy Industries		891	1'201	1'280	962	1'039	1'094	1'267	1'176	1'423	
2. Manufacturing Industries and Construction		5'237	5'410	4'994	4'862	4'861	5'098	4'853	4'736	4'893	
3. Transport		14'144	14'668	14'983	13'933	14'117	13'815	13'885	14'462	14'689	
4. Other Sectors		18'631	19'810	19'830	19'100	18'023	19'013	19'810	18'785	19'401	
5. Other		770	765	759	754	749	744	739	735	731	
B. Fugitive Emissions from Fuels	0	56	70	71	71	72	73	73	73	73	0
1. Solid Fuels		0	0	0	0	0	0	0	0	0	0
2. Oil and Natural Gas		56	70	71	71	72	73	73	73	73	
2. Industrial Processes	0	3'363	3'034	2'736	2'548	2'731	2'622	2'220	2'207	2'204	0
A. Mineral Products											
B. Chemical Industry											
C. Metal Production											
D. Other Production											
E. Production of Halocarbons and SF ₆											
F. Consumption of Halocarbons and SF ₆											
G. Other											
3. Solvent and Other Product Use	0	0	0	0	0	0	0	0	0	0	0
4. Agriculture	0	0	0	0	0	0	0	0	0	0	0
A. Enteric Fermentation											
B. Manure Management											
C. Rice Cultivation											
D. Agricultural Soils ⁽²⁾											
E. Prescribed Burning of Savannas											
F. Field Burning of Agricultural Residues											
G. Other											
5. Land-Use Change and Forestry⁽³⁾	0	-4'343	-4'404	-4'527	-5'718	-5'757	-5'729	-5'925	-6'169	-6'109	0
A. Changes in Forest and Other Woody Biomass Stocks		-4'343	-4'404	-4'527	-5'718	-5'757	-5'729	-5'925	-6'169	-6'109	
B. Forest and Grassland Conversion											
C. Abandonment of Managed Lands											
D. CO ₂ Emissions and Removals from Soil											
E. Other											
6. Waste	0	1'317	1'327	1'337	1'336	1'336	1'346	1'365	1'375	1'394	0
A. Solid Waste Disposal on Land		137	137	137	136	136	136	135	135	134	
B. Waste-water Handling											
C. Waste Incineration		1'180	1'190	1'200	1'200	1'200	1'210	1'230	1'240	1'260	
D. Other											
7. Other (please specify)	0	0	0	0	0	0	0	0	0	0	0
Total Emissions/Removals with LUCF⁽⁴⁾	0	40'066	41'881	41'463	37'848	37'171	38'076	38'287	37'380	38'700	0
Total Emissions without LUCF⁽⁴⁾	0	44'409	46'285	45'990	43'566	42'928	43'805	44'212	43'549	44'809	0
Memo Items:											
International Bunkers	0	3'200	3'100	3'300	3'440	3'550	3'770	3'900	4'050	4'230	0
Aviation	0	3'200	3'100	3'300	3'440	3'550	3'770	3'900	4'050	4'230	0
Marine	0	0	0	0	0	0	0	0	0	0	0
Multilateral Operations	0	0	0	0	0	0	0	0	0	0	0
CO₂ Emissions from Biomass (only fuel combustion)		NE	NE	NE	NE	NE	NE	NE	1'880	1'930	0

⁽¹⁾ Fill in the base year adopted by the Party under the Convention, if different from 1990.

⁽²⁾ See footnote 4 to Summary 1.A of this common reporting format.

⁽³⁾ Take the net emissions as reported in Summary 1.A of this common reporting format. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

⁽⁴⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO₂ emissions and removals from Land-Use Change and Forestry.

TABLE 10 EMISSIONS TRENDS (CH₄)
(Sheet 2 of 5)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
		(Gg)									
Total Emissions	0.00	241.90	242.86	240.46	238.31	234.14	233.16	229.99	226.77	221.97	0.00
1. Energy	0.00	21.87	21.69	20.95	20.28	19.45	18.82	18.71	18.26	18.43	0.00
A. Fuel Combustion (Sectoral Approach)	0.00	7.23	7.23	6.79	6.51	6.18	6.04	6.03	5.68	5.95	0.00
1. Energy Industries		0.05	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.08	
2. Manufacturing Industries and Construction		0.25	0.27	0.26	0.27	0.27	0.29	0.35	0.37	0.43	
3. Transport		3.92	3.69	3.39	3.12	2.93	2.72	2.53	2.36	2.46	
4. Other Sectors		2.65	2.91	2.77	2.76	2.61	2.66	2.78	2.58	2.62	
5. Other		0.37	0.29	0.30	0.30	0.30	0.29	0.29	0.31	0.36	
B. Fugitive Emissions from Fuels	0.00	14.64	14.46	14.16	13.77	13.27	12.78	12.68	12.58	12.48	0.00
1. Solid Fuels		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Oil and Natural Gas		14.64	14.46	14.16	13.77	13.27	12.78	12.68	12.58	12.48	
2. Industrial Processes	0.00	0.43	0.43	0.42	0.41	0.41	0.40	0.41	0.41	0.42	0.00
A. Mineral Products											
B. Chemical Industry											
C. Metal Production											
D. Other Production											
E. Production of Halocarbons and SF ₆											
F. Consumption of Halocarbons and SF ₆											
G. Other											
3. Solvent and Other Product Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Agriculture (3 year average)	0.00	150.99	152.52	151.28	150.29	147.35	147.41	145.35	143.58	139.50	0.00
A. Enteric Fermentation		130.20	131.68	130.67	129.85	127.34	127.66	126.00	124.08	120.40	
B. Manure Management		20.79	20.84	20.61	20.44	20.01	19.75	19.35	19.50	19.10	
C. Rice Cultivation											
D. Agricultural Soils											
E. Prescribed Burning of Savannas											
F. Field Burning of Agricultural Residues											
G. Other											
5. Land-Use Change and Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Changes in Forest and Other Woody Biomass Stocks											
B. Forest and Grassland Conversion											
C. Abandonment of Managed Lands											
D. CO ₂ Emissions and Removals from Soil											
E. Other											
6. Waste	0.00	68.61	68.22	67.82	67.32	66.93	66.53	65.53	64.53	63.62	0.00
A. Solid Waste Disposal on Land		66.90	66.50	66.10	65.60	65.20	64.80	63.80	62.80	61.90	
B. Waste-water Handling		1.35	1.38	1.40	1.43	1.46	1.48	1.51	1.54	1.57	
C. Waste Incineration		0.36	0.34	0.32	0.29	0.27	0.25	0.22	0.19	0.15	
D. Other											
7. Other (please specify)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Memo Items:											
International Bunkers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Marine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO₂ Emissions from Biomass											

TABLE 10 EMISSIONS TRENDS (N₂O)
(Sheet 3 of 5)

Switzerland
1998
Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
		(Gg)									
Total Emissions	0.00	11.34	11.44	11.51	11.55	11.59	11.56	11.56	11.47	11.69	0.00
1. Energy	0.00	1.23	1.38	1.53	1.63	1.76	1.84	1.92	1.96	2.26	0.00
A. Fuel Combustion (Sectoral Approach)	0.000	1.228	1.382	1.532	1.631	1.756	1.842	1.921	1.958	2.255	0.000
1. Energy Industries		0.005	0.007	0.007	0.003	0.004	0.004	0.005	0.004	0.006	
2. Manufacturing Industries and Construction		0.027	0.029	0.024	0.022	0.022	0.022	0.022	0.027	0.032	
3. Transport		0.983	1.130	1.286	1.396	1.530	1.614	1.684	1.739	2.009	
4. Other Sectors		0.184	0.193	0.193	0.188	0.178	0.181	0.184	0.166	0.181	
5. Other		0.029	0.023	0.022	0.022	0.022	0.021	0.021	0.022	0.027	
B. Fugitive Emissions from Fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1. Solid Fuels		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Oil and Natural Gas		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Industrial Processes	0.000	0.318	0.318	0.318	0.312	0.312	0.312	0.312	0.312	0.312	0.000
A. Mineral Products											
B. Chemical Industry											
C. Metal Production											
D. Other Production											
E. Production of Halocarbons and SF ₆											
F. Consumption of Halocarbons and SF ₆											
G. Other											
3. Solvent and Other Product Use		0.347	0.354	0.361	0.369	0.376	0.383	0.384	0.386	0.388	
4. Agriculture (3 year average)	0.000	9.231	9.159	9.055	8.986	8.875	8.743	8.648	8.512	8.423	0.000
A. Enteric Fermentation											
B. Manure Management		1.476	1.458	1.436	1.427	1.410	1.394	1.383	1.376	1.373	
C. Rice Cultivation											
D. Agricultural Soils		7.755	7.701	7.619	7.559	7.465	7.349	7.265	7.136	7.050	
E. Prescribed Burning of Savannas											
F. Field Burning of Agricultural Residues											
G. Other											
5. Land-Use Change and Forestry	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A. Changes in Forest and Other Woody Biomass Stocks											
B. Forest and Grassland Conversion											
C. Abandonment of Managed Lands											
D. CO ₂ Emissions and Removals from Soil											
E. Other											
6. Waste	0.000	0.219	0.231	0.243	0.253	0.267	0.280	0.291	0.301	0.312	0.000
A. Solid Waste Disposal on Land	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B. Waste-water Handling		0.062	0.063	0.064	0.065	0.066	0.067	0.069	0.070	0.071	
C. Waste Incineration		0.157	0.168	0.179	0.188	0.201	0.213	0.222	0.231	0.241	
D. Other											
7. Other (please specify)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Memo Items:											
International Bunkers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Marine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Multilateral Operations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO₂ Emissions from Biomass											

TABLE 10 EMISSION TRENDS (HFCs, PFCs and SF₆)
(Sheet 4 of 5)

Switzerland

1998

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
Emissions of HFCs⁽⁵⁾ - CO₂ equivalent (Gg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	355.00	468.38	0.00
HFC-23										0.0001	
HFC-32										0.0005	
HFC-41										0.0000	
HFC-43-10mee										0.0806	
HFC-125										0.0114	
HFC-134										0.0000	
HFC-134a										0.2228	
HFC-152a										0.0643	
HFC-143										0.0000	
HFC-143a										0.0083	
HFC-227ea										0.0000	
HFC-236fa										0.0000	
HFC-245ca										0.0000	
Emissions of PFCs⁽⁵⁾ - CO₂ equivalent (Gg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.70	70.27	0.00
CF ₄										0.0075	
C ₂ F ₆										0.0012	
C ₃ F ₈										0.0011	
C ₄ F ₁₀										0.0001	
c-C ₄ F ₈										0.0001	
C ₅ F ₁₂										0.0001	
C ₆ F ₁₄										0.0001	
Emissions of SF₆⁽⁵⁾ - CO₂ equivalent (Gg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	172.08	152.96	0.00
SF ₆									0.0072	0.0064	

⁽⁵⁾ Enter information on the actual emissions. Where estimates are only available for the potential emissions, specify this in a comment to the corresponding cell. Only in this row the emissions are expressed as CO₂ equivalent emissions in order to facilitate data flow among spreadsheets.

TABLE 10 EMISSION TRENDS (SUMMARY)
(Sheet 5 of 5)

Switzerland
1998
Submission 2000

GREENHOUSE GAS EMISSIONS	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO ₂ equivalent (Gg)										
Net CO ₂ emissions/removals	0	40'066	41'881	41'463	37'848	37'171	38'076	38'287	37'380	38'700	0
CO ₂ emissions (without LUCF) ⁽⁶⁾	0	44'409	46'285	45'990	43'566	42'928	43'805	44'212	43'549	44'809	0
CH ₄	0	5'080	5'100	5'050	5'004	4'917	4'896	4'830	4'762	4'661	0
N ₂ O	0	3'516	3'548	3'568	3'581	3'592	3'584	3'582	3'555	3'624	0
HFCs (only for 1997, 1998)	0	0	0	0	0	0	0	0	355	468	0
PFCs (only for 1997, 1998)	0	0	0	0	0	0	0	0	61	70	0
SF ₆ (only for 1997, 1998)	0	0	0	0	0	0	0	0	172	153	0
Total (with net CO₂ emissions/removals)	0	48'662	50'529	50'080	46'433	45'680	46'556	46'699	46'285	47'677	0
Total (without CO₂ from LUCF) ⁽⁶⁾	0	53'005	54'933	54'607	52'151	51'437	52'285	52'624	52'454	53'786	0

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ⁽¹⁾	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO ₂ equivalent (Gg)										
1. Energy	0	40'569	42'808	42'832	40'614	39'814	40'803	41'615	40'957	42'297	0
2. Industrial Processes	0	3'471	3'142	2'843	2'653	2'836	2'727	2'325	2'900	3'001	0
3. Solvent and Other Product Use	0	108	110	112	114	117	119	119	120	120	0
4. Agriculture (3 year average)	0	6'032	6'042	5'984	5'942	5'846	5'806	5'733	5'654	5'541	0
5. Land-Use Change and Forestry ⁽⁷⁾	0	-4'343	-4'404	-4'527	-5'718	-5'757	-5'729	-5'925	-6'169	-6'109	0
6. Waste	0	2'826	2'831	2'836	2'828	2'824	2'830	2'831	2'823	2'827	0
7. Other	0	0	0	0	0	0	0	0	0	0	0

⁽⁶⁾ The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO₂ emissions and removals from Land-Use Change and Forestry.

⁽⁷⁾ Net emissions.

Documentation Box:

HFCs, PFCs, SF₆: data available only 1997 and 1998; so the time series above is distorted.

Agriculture values are 3 year averages; for 1998 in tables 4.A-D instead there are one year values ! That is the reason for the small differences in total CO₂ equivalent emissions for 1998 in table "Summary 2" . and "10s5"

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION⁽¹⁾

Party: Switzerland **Year:** 1998

Contact info:	Focal point for national GHG inventories:	Mr. Andreas Liechti		
	Address:	BUWAL, CH-3003 Berne		
	Telephone:	++41-31-322 93 81	Fax: ++41-31-324 01 37	E-mail: andreas.liechti@buwal.admin.ch
	Main institution preparing the inventory:	Swiss Agency for the Environment, Forests and Landscape, SAEFL (BUWAL)		

General info:	Date of submission:	15.04.00		
	Base years:	1990	PFCs, HFCs, SF ₆ :	not yet defined
	Year covered in the submission:	1998		
	Gases covered:	CO2, CH4, N2O, PFC, HFC, SF6, NOx, CO, NMVOC, SO2		
	Omissions in geographic coverage:	none		

Tables:		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
	Sectoral report tables:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Sectoral background data tables:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		<input checked="" type="checkbox"/>	IPCC Table 7B:		<input checked="" type="checkbox"/>
	Summary 2 (CO ₂ equivalent emissions):			<input checked="" type="checkbox"/>			
	Summary 3 (Methods/Emission factors):			<input checked="" type="checkbox"/>			
	Uncertainty:	IPCC Table 8A:		<input checked="" type="checkbox"/>	National information:		<input type="checkbox"/>
	Recalculation tables:			<input checked="" type="checkbox"/>			
	Completeness table:			<input checked="" type="checkbox"/>			
	Trend table:			<input checked="" type="checkbox"/>			

CO₂	Comparison of CO ₂ from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		<input checked="" type="checkbox"/>	0.33	<input checked="" type="checkbox"/>

Recalculation:		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
	CO ₂	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CH ₄	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	N ₂ O	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	HFCs, PFCs, SF ₆	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explanations:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Recalculation tables for all recalculated years:			<input checked="" type="checkbox"/>	1990-1997		
	Full CRF for the recalculated base year:			<input type="checkbox"/>	will be submitted with the 1999 inventory.		

HFCs, PFCs, SF₆:		HFCs		PFCs		SF ₆	
	Disaggregation by species:	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
	Production of Halocarbons/SF ₆ :	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
	Consumption of Halocarbons/SF ₆ :	Actual	Potential	Actual	Potential	Actual	Potential
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Potential/Actual emission ratio:	2.14		5.85		7.62	

Reference to National Inventory Report and/or national inventory web site:	not yet implemented
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CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

⁽¹⁾ For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.