

Country	Switzerland
Inventory Year	1999
Title of Inventory	SWISS GREENHOUSE GAS INVENTORY 1999
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Title	
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Status	Initial submission
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Submission	Submission 2001
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Comments	
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**TABLE 1 SECTORAL REPORT FOR ENERGY**  
(Sheet 1 of 2)

Switzerland  
1999  
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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC	SO <sub>2</sub>
	(Gg)						
<b>Total Energy</b>	<b>41'181.34</b>	<b>18.06</b>	<b>2.32</b>	<b>93.05</b>	<b>384.90</b>	<b>51.80</b>	<b>19.83</b>
<b>A. Fuel Combustion Activities (Sectoral Approach)</b>	<b>41'104.34</b>	<b>5.68</b>	<b>2.32</b>	<b>92.99</b>	<b>384.89</b>	<b>44.91</b>	<b>19.83</b>
<b>1. Energy Industries</b>	<b>1'125.93</b>	<b>0.07</b>	<b>0.00</b>	<b>1.11</b>	<b>0.29</b>	<b>0.04</b>	<b>1.18</b>
a. Public Electricity and Heat Production	452.18	0.04	0.00	0.42	0.13	0.02	0.12
b. Petroleum Refining	673.75	0.03	0.00	0.69	0.16	0.03	1.06
c. Manufacture of Solid Fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO
<b>2. Manufacturing Industries and Construction</b>	<b>5'499.13</b>	<b>0.40</b>	<b>0.04</b>	<b>9.86</b>	<b>16.59</b>	<b>0.46</b>	<b>5.18</b>
a. Iron and Steel	82.60	0.01	0.00	0.13	1.84	0.004	0.22
b. Non-Ferrous Metals	IE	IE	IE	IE	IE	IE	IE
c. Chemicals	IE	IE	IE	IE	IE	IE	IE
d. Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE
e. Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE
f. Other (Sum of 2.b - 2.e)	5'416.53	0.39	0.04	9.72	14.75	0.46	4.97
<b>3. Transport</b>	<b>15'315.63</b>	<b>2.31</b>	<b>2.09</b>	<b>56.09</b>	<b>243.43</b>	<b>31.39</b>	<b>2.13</b>
a. Civil Aviation	254.96	0.04	0.00	1.20	1.08	0.04	0.06
b. Road Transportation	14'961.90	2.21	2.09	53.74	239.43	30.42	2.00
c. Railways	27.97	0.00	0.00	0.49	0.11	0.05	0.01
d. Navigation	70.80	0.07	0.00	0.67	2.81	0.88	0.07
e. Other Transportation ( <i>please specify</i> )	NO	NO	NO	NO	NO	NO	NO

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

Switzerland  
1999  
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GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC	SO <sub>2</sub>
	(Gg)						
<b>4. Other Sectors</b>	<b>18'436.62</b>	<b>2.60</b>	<b>0.17</b>	<b>19.02</b>	<b>83.75</b>	<b>7.29</b>	<b>11.15</b>
a. Commercial/Institutional	5'917.94	0.82	0.05	4.21	13.35	0.59	3.44
b. Residential	11'838.46	1.52	0.10	6.96	27.35	1.15	7.48
c. Agriculture/Forestry/Fisheries	680.22	0.26	0.02	7.85	43.05	5.55	0.23
<b>5. Other (please specify) <sup>(1)</sup>; see table 1.A(a)s4</b>	<b>727.04</b>	<b>0.31</b>	<b>0.02</b>	<b>6.91</b>	<b>40.82</b>	<b>5.72</b>	<b>0.19</b>
a. Stationary 	IE	IE	IE	IE	IE	IE	IE
b. Mobile 	IE	IE	IE	IE	IE	IE	IE
<b>B. Fugitive Emissions from Fuels</b>	<b>77.00</b>	<b>12.38</b>	<b>0.00</b>	<b>0.06</b>	<b>0.01</b>	<b>6.89</b>	<b>0.00</b>
<b>1. Solid Fuels</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
a. Coal Mining	NO	NO	NO	NO	NO	NO	
b. Solid Fuel Transformation	NO	NO	NO	NO	NO	NO	NO
c. Other (please specify) 	NO	NO	0.00	0.00	0.00	0.00	0.00
<b>2. Oil and Natural Gas</b>	<b>77.00</b>	<b>12.38</b>	<b>0.00</b>	<b>0.06</b>	<b>0.01</b>	<b>6.89</b>	<b>0.00</b>
a. Oil	0.00	0.23		NO	NO	5.58	NO
b. Natural Gas	35.00	12.10		0.06	0.01	1.21	NO
c. Venting and Flaring	42.00	0.05	NO	NO	NO	0.10	NO
Venting	42.00	0.05				IE	IE
Flaring	IE	IE	IE	IE	IE	IE	IE
d. Other (please specify) 	NO	NO	NO	NO	NO	NO	NO
<b>Memo Items: <sup>(2)</sup></b>							
<b>International Bunkers</b>	<b>4'520.00</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
Aviation	4'520.00	NE	NE	NE	NE	NE	NE
Marine	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>CO<sub>2</sub> Emissions from Biomass</b>	<b>1'894.42</b>						

<sup>(1)</sup> Include military fuel use under this category.

<sup>(2)</sup> 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)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>			EMISSIONS		
	Consumption		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
<b>I.A. Fuel Combustion</b>	<b>603'675.00</b>	NCV				<b>41'104.34</b>	<b>5.68</b>	<b>2.32</b>
Liquid Fuels	418'671.00	NCV	73.79	5.30	4.59	30'895.20	2.22	1.92
Solid Fuels	1'204.00	NCV	94.00	45.75	1.60	113.18	0.06	0.002
Gaseous Fuels	107'881.00	NCV	55.37	6.38	0.10	5'973.03	0.69	0.01
Biomass	20'590.00	NCV	92.01	86.28	1.60 <sup>(3)</sup>	1'894.42	1.78	0.03
Other Fuels	55'329.00	NCV	74.52	16.99	6.37	4'122.94	0.94	0.35
<b>I.A.1. Energy Industries</b>	<b>18'670.00</b>	NCV				<b>1'125.93</b>	<b>0.07</b>	<b>0.00</b>
Liquid Fuels	2'783.00	NCV	76.45	2.41	0.62	212.75	0.01	0.002
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	15'887.00	NCV	57.48	3.85	0.10	913.18	0.06	0.002
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
a. Public Electricity and Heat Production	7'815.00	NCV				452.18	0.04	0.001
Liquid Fuels	1'085.00	NCV	75.58	2.30	0.69	82.00	0.003	0.001
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	6'730.00	NCV	55.00	5.94	0.10	370.18	0.04	0.001
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
b. Petroleum Refining	10'855.00	NCV				673.75	0.03	0.002
Liquid Fuels	1'698.00	NCV	77.00	2.47	0.58	130.75	0.00	0.001
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	9'157.00	NCV	59.30	2.30	0.10	543.00	0.02	0.001
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
c. Manufacture of Solid Fuels and Other Energy Industries	NO	NCV				NO	NO	NO
Liquid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO

<sup>(1)</sup> 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.

<sup>(2)</sup> Accurate estimation of CH<sub>4</sub> and N<sub>2</sub>O 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.

<sup>(3)</sup> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>			EMISSIONS		
	Consumption		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
<b>1.A.2 Manufacturing Industries and Construction</b>	<b>87'700.00</b>	NCV				<b>5'499.13</b>	<b>0.40</b>	<b>0.04</b>
Liquid Fuels	33'950.00	NCV	73.99	1.33	0.62	2'512.00	0.05	0.02
Solid Fuels	1'054.00	NCV	94.00	9.56	1.60	99.08	0.01	0.002
Gaseous Fuels	27'692.00	NCV	55.00	5.80	0.10	1'523.05	0.16	0.003
Biomass	7'010.00	NCV	92.01	20.97	1.60 <sup>(3)</sup>	645.00	0.15	0.01
Other Fuels	17'994.00	NCV	75.86	1.89	0.22	1'365.00	0.03	0.004
a. Iron and Steel	1'200.00	NCV				82.60	0.01	0.00
Liquid Fuels		NO	0.00	0.00	0.00	NO	NO	NO
Solid Fuels	425.00	NCV	94.00	10.40	1.60	39.95	0.004	0.0007
Gaseous Fuels	775.00	NCV	55.03	1.68	0.10	42.65	0.001	0.0001
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
b. Non-Ferrous Metals		IE				IE	IE	IE
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 <sup>(3)</sup>			
Other Fuels		NCV	0.00	0.00	0.00			
c. Chemicals		IE				IE	IE	IE
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 <sup>(3)</sup>			
Other Fuels		NCV	0.00	0.00	0.00			
d. Pulp, Paper and Print		IE				IE	IE	IE
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 <sup>(3)</sup>			
Other Fuels		NCV	0.00	0.00	0.00			
e. Food Processing, Beverages and Tobacco		IE				IE	IE	IE
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 <sup>(3)</sup>			
Other Fuels		NCV	0.00	0.00	0.00			
f. Other (please specify )	86'500.00	NCV				5'416.53	0.39	0.04
Liquid Fuels	33'950.00	NCV	73.99	1.33	0.62	2'512.00	0.05	0.02
Solid Fuels	629.00	NCV	94.00	9.00	1.60	59.13	0.01	0.001
Gaseous Fuels	26'917.00	NCV	55.00	5.92	0.10	1'480.40	0.16	0.003
Biomass	7'010.00	NCV	92.01	20.97	1.60 <sup>(3)</sup>	645.00	0.15	0.01
Other Fuels (Cement, lime, glass)	17'994.00	NCV	75.86	1.89	0.22	1'365.00	0.03	0.004

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>			EMISSIONS		
	Consumption		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
<b>1.A.3 Transport</b>	<b>207'432.00</b>	NCV				<b>15'315.63</b>	<b>2.31</b>	<b>2.09</b>
Gasoline	140'975.00	NCV	73.89	12.93	11.69	10'415.96	1.82	1.65
Diesel	46'796.00	NCV	73.60	3.21	2.92	3'444.27	0.15	0.14
Natural Gas	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels	19'661.00	NCV	74.02	17.31	15.50	1'455.40	0.34	0.30
a. Civil Aviation	3'483.00	NCV				254.96	0.04	0.00
Aviation Gasoline	IE	NCV	0.00	0.00	0.00	IE	IE	IE
Jet Kerosene	3'483.00	NCV	73.20	11.20	0.00	254.96	0.04	
b. Road Transportation	202'607.00	NCV				14'961.90	2.21	2.09
Gasoline	137'492.00	NCV	73.90	12.97	11.98	10'161.00	1.78	1.65
Diesel Oil	45'454.00	NCV	73.60	1.78	2.94	3'345.50	0.08	0.13
Natural Gas	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels (please specify)	19'661.00	NCV				1'455.40	0.34	0.30
Fuel tourism gasoline	27'304.00	NCV	73.90	12.97	11.98	2'017.90	0.35	0.33
Fuel tourism diesel	-7'643.00	NCV	73.60	1.78	2.94	-562.50	-0.01	-0.02
		NCV	0.00	0.00	0.00			
c. Railways	380.00	NCV				27.97	0.001	0.001
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Liquid Fuels	380.00	NCV	73.60	2.63	2.63	27.97	0.001	0.001
Other Fuels (please specify)	NO	NCV				NO	NO	NO
		NCV	0.00	0.00	0.00			
d. Navigation	962.00	NCV				70.80	0.07	0.002
Coal	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Residual Oil	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gas/Diesel Oil	962.00	NCV	73.60	70.69	2.08	70.80	0.07	0.002
Other Fuels (please specify)	NO	NCV				NO	NO	NO
		NCV	0.00	0.00	0.00			
e. Other Transportation	NO	NCV				NO	NO	NO
Liquid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>			EMISSIONS		
	Consumption		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
	(TJ)	<sup>(1)</sup>	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
<b>1.A.4 Other Sectors</b>	<b>280'008.00</b>	NCV				<b>18'436.62</b>	<b>2.60</b>	<b>0.17</b>
Liquid Fuels	194'167.00	NCV	73.70	1.01	0.60	14'310.22	0.20	0.12
Solid Fuels	150.00	NCV	94.00	300.00	1.60	14.10	0.05	0.0002
Gaseous Fuels	64'302.00	NCV	55.00	7.26	0.10	3'536.80	0.47	0.01
Biomass	13'580.00	NCV	92.00	120.00	1.60 <sup>(3)</sup>	1'249.42	1.63	0.02
Other Fuels (gasoline)	7'809.00	NCV	73.70	33.36	2.82	575.50	0.26	0.02
a. Commercial/Institutional	91'332.00	NCV				5'917.94	0.82	0.05
Liquid Fuels	60'910.00	NCV	73.70	1.00	0.60	4'489.00	0.06	0.04
Solid Fuels	10.00	NCV	94.00	300.00	1.60	0.94	0.003	0.00002
Gaseous Fuels	25'962.00	NCV	55.00	8.44	0.10	1'428.00	0.22	0.003
Biomass	4'450.00	NCV	92.00	120.00	1.60 <sup>(3)</sup>	409.42	0.53	0.01
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
b. Residential	179'370.00	NCV				11'838.46	1.52	0.10
Liquid Fuels	132'060.00	NCV	73.70	1.00	0.60	9'733.00	0.13	0.08
Solid Fuels	140.00	NCV	94.00	300.00	1.60	13.16	0.04	0.0002
Gaseous Fuels	38'040.00	NCV	55.00	6.49	0.10	2'092.30	0.25	0.004
Biomass	9'130.00	NCV	92.00	120.00	1.60 <sup>(3)</sup>	840.00	1.10	0.01
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
c. Agriculture/Forestry/Fisheries	9'306.00	NCV				680.22	0.26	0.02
Liquid Fuels	1'197.00	NCV	73.70	2.00	0.60	88.22	0.002	0.001
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	300.00	NCV	55.00	2.00	0.10	16.50	0.001	0.00003
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels (gasoline)	7'809.00	NCV	73.70	33.36	2.82	575.50	0.26	0.02
<b>1.A.5 Other (Not elsewhere specified) <sup>(4)</sup></b>	<b>9'865.00</b>	NCV				<b>727.04</b>	<b>0.31</b>	<b>0.02</b>
Liquid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Solid Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Gaseous Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
Biomass	NO	NCV	0.00	0.00	0.00 <sup>(3)</sup>	NO	NO	NO
Other Fuels (gasoline)	9'865.00	NCV	73.70	30.92	2.23	727.04	0.31	0.02

<sup>(4)</sup> 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 underwent a revision in 2001; consequently, there was a reallocation of emissions from sector 1.A.4.a (Commercial/Institutional) to sector 1.A.2.f (Manufacturing Industries and Construction); further Improvements are under way. The consumption in the industry sector is the calculated difference (by fuel) between apparent consumption and the consumption of the other sectors.
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 and an import of diesel fuel bought abroad.
1.A.5: This category "Other" includes machinery in the construction, the industry and the private (residential, hobby) sector. Military aviation fuels are reported under 1.A.3.a (Civil aviation) as indicated in the good practice guidelines.

**TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY**  
**CO<sub>2</sub> from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)**  
**(Sheet 1 of 1)**

Switzerland  
1999  
Submission 2001

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor <sup>(1)</sup> (TJ/Unit)	<sup>(1)</sup>	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO <sub>2</sub> emissions (Gg CO <sub>2</sub> )
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			3'890.00	0.00	0.00	-89.00	3'979.00	44.80	NCV	178'259.20	18.90	3'369.10		3'369.10	1.00	12'353.36
		Jet Kerosene			1'509.00	0.00	1'436.00	-8.00	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	0.00		NCV	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			5'553.00	15.00	0.00	-898.00	6'436.00	43.30	NCV	278'678.80	20.20	5'629.31	0.00	5'629.31	1.00	20'640.81
		Residual Fuel Oil			795.00	503.00	0.00	23.00	269.00	40.20	NCV	10'813.80	21.10	228.17		228.17	1.00	836.63
		LPG			200.00	53.00		1.00	146.00	47.30	NCV	6'905.80	17.20	118.78	0.00	118.78	1.00	435.53
		Ethane			0.00	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	0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Bitumen			0.00	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	0.00		NCV	0.00		0.00	0.00	0.00	1.00	0.00
		Petroleum Coke			43.00	0.00		0.00	43.00	31.00	NCV	1'333.00	27.50	36.66		36.66	1.00	134.41
		Refinery Feedstocks			0.00	0.00		0.00	0.00		NCV	0.00		0.00		0.00	1.00	0.00
		Other Oil							0.00		NCV	0.00		0.00		0.00	1.00	0.00
Liquid Fossil Totals											479'603.20		9'452.46	0.00	9'452.46		34'659.04	
Solid Fossil	Primary Fuels	Anthracite <sup>(2)</sup>							0.00		NCV	0.00		0.00		0.00		0.00
		Coking Coal			26.00	0.00		0.00	26.00	28.10	NCV	730.60	25.80	18.85	0.00	18.85	1.00	69.11
		Other Bit. Coal			112.00				112.00	28.10	NCV	3'147.20	25.80	81.20		81.20	1.00	297.73
		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		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											3'998.40		103.40	0.00	103.40		379.13	
Gaseous Fossil		Natural Gas (Dry)						0.00		NCV	110'827.00	15.30	1'695.65	0.00	1'695.65	1.00	6'217.39	
Total											594'428.60		11'251.52	0.00	11'251.52		41'255.57	
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

<sup>(1)</sup> 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.

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



**TABLE 1.A(c) COMPARISON OF CO<sub>2</sub> EMISSIONS FROM FUEL COMBUSTION**  
(Sheet 1 of 1)

Switzerland  
1999  
Submission 2001

FUEL TYPES	Reference approach		National approach <sup>(1)</sup>		Difference <sup>(2)</sup>	
	Energy consumption (PJ)	CO <sub>2</sub> emissions (Gg)	Energy consumption (PJ)	CO <sub>2</sub> emissions (Gg)	Energy consumption (%)	CO <sub>2</sub> emissions (%)
Liquid Fuels (excluding international bunkers)	479.60	34'659.04	418.67	30'895.20	14.55	12.18
Solid Fuels (excluding international bunkers)	4.00	379.13	1.20	113.18	232.09	235.00
Gaseous Fuels	110.83	6'217.39	107.88	5'973.03	2.73	4.09
Other <sup>(3)</sup>			55.33	4'122.94	-100.00	-100.00
<b>Total <sup>(3)</sup></b>	<b>594.43</b>	<b>41'255.57</b>	<b>583.09</b>	<b>41'104.34</b>	<b>1.95</b>	<b>0.37</b>

<sup>(1)</sup> "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO<sub>2</sub> emissions from fuel combustion reported in the national GHG inventory.

<sup>(2)</sup> 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).

<sup>(3)</sup> Emissions from biomass are not included.

**Note:** In addition to estimating CO<sub>2</sub> 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 (IPCC factors) and National approach (National factors) 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 CO<sub>2</sub>-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  
1999  
Submission 2001


FUEL TYPE <sup>(1)</sup>	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 <sup>(2)</sup>			0.00	
Lubricants			0.00	
Bitumen	11'997.90	1.00	22.00	263.95
Coal Oils and Tars (from Coking Coal)			0.00	
Natural Gas <sup>(2)</sup>			0.00	
Gas/Diesel Oil <sup>(2)</sup>			0.00	
LPG <sup>(2)</sup>			0.00	
Butane <sup>(2)</sup>			0.00	
Ethane <sup>(2)</sup>			0.00	
Other (please specify) 				
			0.00	

<sup>(1)</sup> Where fuels are used in different industries, please enter in different rows.

<sup>(2)</sup> 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 <sub>2</sub> emissions (Gg)	Allocated under  <sup>(a)</sup> e.g. Industrial Processes, Waste (Specify source category) <sup>(a)</sup>
	Incineration, etc.
With the CORINAIR-approach emissions from feedstocks are included in sectors 2 (Industrial processes), 3 (Solvent use), 6 (Waste).	


Additional information <sup>(a)</sup>

CO <sub>2</sub> not emitted  (Gg CO <sub>2</sub> )	Subtracted from energy sector (specify source category)
0.00	
0.00	
967.82	see documentation box
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	
0.00	

<sup>(a)</sup> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced <sup>(1)</sup>	CH <sub>4</sub>	CO <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub>
	(Mt)	(kg/t)	(kg/t)	(Gg)	(Gg)
<b>1. B. 1. a. Coal Mining and Handling</b>	NO			NO	NO
i. Underground Mines <sup>(2)</sup>	NO	0.00	0.00	NO	NO
Mining Activities		0.00	0.00		
Post-Mining Activities		0.00	0.00		
ii. Surface Mines <sup>(2)</sup>	NO	0.00	0.00	NO	NO
Mining Activities		0.00	0.00		
Post-Mining Activities		0.00	0.00		
<b>1. B. 1. b. Solid Fuel Transformation</b>	NO	0.00	0.00	NO	NO
<b>1. B. 1. c. Other (please specify) <sup>(3)</sup></b> 				NO	NO
		0.00	0.00		

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

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

<sup>(3)</sup> 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.

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

**Additional information <sup>(a)</sup>**

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

<sup>(a)</sup> For underground mines.

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description <sup>(1)</sup>	Unit	Value	CO <sub>2</sub> (kg/unit) <sup>(2)</sup>	CH <sub>4</sub> (kg/unit) <sup>(2)</sup>	N <sub>2</sub> O (kg/unit) <sup>(2)</sup>	CO <sub>2</sub> (Gg)	CH <sub>4</sub> (Gg)	N <sub>2</sub> O (Gg)
<b>I. B. 2. a. Oil</b> <sup>(3)</sup>							<b>0.00</b>	<b>0.23</b>	
i. Exploration	NO			0.00	0.00		NO	NO	
ii. Production <sup>(4)</sup>	NO			0.00	0.00		NO	NO	
iii. Transport	NO			0.00	0.00		NO	NO	
iv. Refining / Storage	Oil products produced	PJ	220.00	0.00	1'022.73			0.23	
v. Distribution of oil products	Gasoline consumption	PJ	169.00	0.00	0.00				
vi. Other	NO			0.00	0.00		NO	NO	
<b>I. B. 2. b. Natural Gas</b>							<b>35.00</b>	<b>12.10</b>	
Exploration	NO			0.00	0.00		NO	NO	
i. Production <sup>(4)</sup> / Processing	NO			0.00	0.00		NO	NO	
ii. Transmission/Distribution	Apparent consumption	PJ	101.70	344'149.46	118'977.38		35.00	12.10	
				0.00	0.00				
iii. Other Leakage	IE			0.00	0.00		IE	IE	
at industrial plants and power stations				0.00	0.00				
in residential and commercial sectors				0.00	0.00				
<b>I. B. 2. c. Venting</b> <sup>(5)</sup>							<b>42.00</b>	<b>0.05</b>	
i. Oil	Oil products produced	PJ	220.00	190'909.09	227.27		42.00	0.05	
ii. Gas	IE			0.00	0.00		IE	IE	
iii. Combined	NO			0.00	0.00		NO	NO	
<b>Flaring</b>							<b>IE</b>	<b>IE</b>	<b>IE</b>
i. Oil	IE			0.00	0.00	0.00	IE	IE	IE
ii. Gas	IE			0.00	0.00	0.00	IE	IE	IE
iii. Combined	NO			0.00	0.00	0.00	NO	NO	NO
<b>I.B.2.d. Other (please specify)</b> <sup>(6)</sup>							<b>NO</b>	<b>NO</b>	<b>NO</b>
				0.00	0.00	0.00			

**Additional information**

Description	Value	Unit
Pipelines length (km)	11'200	km
Number of oil wells	0	
Number of gas wells	0	
Gas throughput <sup>(a)</sup>	101.70	PJ
Oil throughput <sup>(a)</sup>	220.00	PJ
Other relevant information (specify)		

<sup>(a)</sup> 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 account that these values should be consistent with the activity data reported under the production rows of the main table.

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

<sup>(3)</sup> 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.

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

<sup>(5)</sup> 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.

<sup>(6)</sup> For example, fugitive CO<sub>2</sub> emissions from production of geothermal power could be reported here.

**Documentation box:**


I.B.2.a.iv: storage and handling losses; flaring.

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). The venting of gas tubes during service is included here (I.B.2.c.ii)

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO <sub>2</sub> (t/TJ)	CH <sub>4</sub> (kg/TJ)	N <sub>2</sub> O (kg/TJ)	CO <sub>2</sub> (Gg)	CH <sub>4</sub> (Gg)	N <sub>2</sub> O (Gg)
<b>Marine Bunkers</b>	NO				NO	NO	NO
Gasoline	NO	0.00	0.00	0.00	NO	NO	NO
Gas/Diesel Oil	NO	0.00	0.00	0.00	NO	NO	NO
Residual Fuel Oil	NO	0.00	0.00	0.00	NO	NO	NO
Lubricants	NO	0.00	0.00	0.00	NO	NO	NO
Coal	NO	0.00	0.00	0.00	NO	NO	NO
Other <i>(please specify)</i> 	NO	0.00	0.00	0.00	NO	NO	NO
		0.00	0.00	0.00			
<b>Aviation Bunkers</b>	<b>61'748.00</b>				<b>4'520.00</b>	NE	NE
Jet Kerosene	61'748.00	73.20	NE	NE	4'520.00	NE	NE
Gasoline	IE	0.00	0.00	0.00	IE	NE	NE
<b>Multilateral Operations <sup>(1)</sup></b>	NO				NO	NO	NO

<sup>(1)</sup> 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.

<b>Documentation box:</b> 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.
Only CO <sub>2</sub> emissions (proportionality to the consumption) could be calculated properly. CH <sub>4</sub> 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 <sup>(a)</sup> (percent)	
	Domestic	International
Marine	100.00	0.00
Aviation	5.34	94.66

<sup>(a)</sup> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>		PFCs <sup>(1)</sup>		SF <sub>6</sub>		NO <sub>x</sub>	CO	NMVOC	SO <sub>2</sub>
				P	A	P	A	P	A				
	(Gg)			CO <sub>2</sub> equivalent (Gg)				(Gg)					
<b>Total Industrial Processes</b>	<b>2'246.00</b>	<b>0.43</b>	<b>0.31</b>	<b>891.22</b>	<b>365.54</b>	<b>24.75</b>	<b>28.20</b>	<b>0.020</b>	<b>0.0052</b>	<b>0.32</b>	<b>11.30</b>	<b>7.81</b>	<b>3.35</b>
<b>A. Mineral Products</b>	<b>2'100.00</b>	<b>0.02</b>	<b>NO</b>							<b>0.01</b>	<b>2.11</b>	<b>3.48</b>	<b>2.28</b>
1. Cement Production	2'065.00	0.02								0.01	2.11	0.18	2.28
2. Lime Production	35.00									NO	NO	NO	NO
3. Limestone and Dolomite Use	NO												
4. Soda Ash Production and Use	NO												
5. Asphalt Roofing (only NMVOC emissions)	NO										NO	3.30	
6. Road Paving with Asphalt	NO									NO	NO	IE	NO
7. Other (please specify) 	NO	NO	NO							NO	NO	NO	NO
<b>B. Chemical Industry</b>	<b>13.00</b>	<b>0.39</b>	<b>0.31</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>0.01</b>	<b>1.18</b>	<b>0.29</b>	<b>0.50</b>
1. Ammonia Production (only NH <sub>3</sub> emissions)	NO	NO								NO	NO	NO	NO
2. Nitric Acid Production			0.31							0.01			
3. Adipic Acid Production			NO							NO	NO	NO	NO
4. Carbide Production	13.00	NO									NO	NO	0.50
5. Other (please specify) 	NO	0.39	NO	NO	NO	NO	NO	NO	NO	NO	1.18	0.29	NO
Organic chemicals (see table 2(I).A-Gs1)	NO	0.39	NO	NO	NO	NO	NO	NO	NO	NO	1.18	0.29	NO
<b>C. Metal Production</b>	<b>132.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>11.87</b>	<b>NO</b>	<b>0.0010</b>	<b>0.19</b>	<b>2.66</b>	<b>0.32</b>	<b>0.38</b>
1. Iron and Steel Production	75.00	NO								0.18	1.13	0.27	0.10
2. Ferroalloys Production	1.00	NO								0.001	0.13	0.03	0.00
3. Aluminium Production	56.00	NO					11.87			0.01	1.40	0.02	0.28
4. SF <sub>6</sub> Used in Aluminium and Magnesium Foundries									0.0010				
5. Other (please specify) 	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

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.

<sup>(1)</sup> The emissions of HFCs and PFCs are to be expressed as CO<sub>2</sub> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>		PFCs <sup>(1)</sup>		SF <sub>6</sub>		NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
				P	A	P	A	P	A				
	(Gg)			CO <sub>2</sub> equivalent (Gg)				(Gg)					
<b>D. Other Production</b>	IE									IE	IE	IE	IE
1. Pulp and Paper										IE	IE	IE	IE
2. Food and Drink <sup>(2)</sup>	IE											IE	
<b>E. Production of Halocarbons and SF<sub>6</sub></b>					NO		NO		NO				
1. By-product Emissions					NO		NO		NO				
Production of HCFC-22					NO								
Other					NO		NO		NO				
2. Fugitive Emissions					NO		NO		NO				
3. Other (please specify)					NO		NO		NO				
<b>F. Consumption of Halocarbons and SF<sub>6</sub></b>				891.22	365.54	24.75	16.33	0.020	0.004				
1. Refrigeration and Air Conditioning Equipment					329.51		1.91		NO				
2. Foam Blowing					11.20		NO		NO				
3. Fire Extinguishers					NO		NO		NO				
4. Aerosols/ Metered Dose Inhalers					24.83		NO		NO				
5. Solvents					NO		3.45		0.000				
6. Semiconductor Manufacture					NO		10.97		0.000				
7. Electrical Equipment									0.003				
8. Other (please specify)				NO	NO	NO	NO	NO	0.001				
<b>G. Other (please specify)</b>	1.00	0.02	NO	NO	NO	NO	NO	NO	NO	0.11	5.36	3.73	0.19
Food, drink, pulp, paper, crematories	1.00	0.02	NO	NO	NO	NO	NO	NO	NO	0.11	5.36	3.73	0.19

<sup>(2)</sup> CO<sub>2</sub> from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO<sub>2</sub> emissions of non-biogenic origin should be reported.

**TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES**  
**Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O**  
**(Sheet 1 of 2)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS <sup>(2)</sup>					
	Production/Consumption quantity		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O	
	Description <sup>(1)</sup>	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	(2)	(Gg)	(2)	(Gg)	(2)
<b>A. Mineral Products</b>						<b>2'100.00</b>		<b>0.02</b>		<b>NO</b>	
1. Cement Production	cement production	3'500.00	0.59			2'065.00		0.02			
2. Lime Production	lime production	94.00	0.37			35.00		NO		NO	
3. Limestone and Dolomite Use			0.00								
4. Soda Ash						NO					
Soda Ash Production			0.00								
Soda Ash Use			0.00								
5. Asphalt Roofing	asphalt concrete (only NMVOC emissions)	6'000.00				NO					
6. Road Paving with Asphalt	IE (Asphalt roofing)		0.00			IE					
7. Other (please specify)						0.00		0.00		0.00	
Glass Production	IE (Table 1.A.(a))		0.00								
			0.00	0.00	0.00						
<b>B. Chemical Industry</b>						<b>13.00</b>		<b>0.39</b>		<b>0.31</b>	
1. Ammonia Production <sup>(3)</sup>	only NH <sub>3</sub> emissions		0.00	0.00	0.00	NO		NO		NO	
2. Nitric Acid Production	nitric acid	65.00			0.005					0.31	
3. Adipic Acid Production	NO				0.00					NO	
4. Carbide Production		16.00	0.81			13.00		NO			
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	IE			0.00				IE			
Ethylene	IE		0.00	0.00	0.00	IE		IE		IE	
Dichloroethylene	NO			0.00							
Styrene	NO			0.00							
Methanol	NO			0.00							
Organic chemicals	production of ethylene, PVC,			0.00	0.00	NO		0.39		NO	
	formaldehyde, acetic acid, carbon black										

<sup>(1)</sup> 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.




<sup>(2)</sup> 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.

<sup>(3)</sup> 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 CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O**  
**(Sheet 2 of 2)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS <sup>(2)</sup>					
	Production/Consumption Quantity		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O	
	Description <sup>(1)</sup>	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	(2)	(Gg)	(2)	(Gg)	(2)
<b>C. Metal Production<sup>(4)</sup></b>						<b>132.00</b>		<b>0.00</b>		<b>0.00</b>	
1. Iron and Steel Production			0.00			75.00		NO			
Steel	steel production	765.00	0.10			75.00					
Pig Iron	IE		0.00	0.00		IE		IE			
Sinter	IE		0.00	0.00		IE		IE			
Coke	IE		0.00	0.00		IE		IE			
Other (please specify) 						NO		NO			
			0.00	0.00	0.00						
2. Ferroalloys Production	ferroalloys production	60.00	0.02	0.00		1.00		0.00			
3. Aluminium Production	aluminium production	35.00	1.60	0.00		56.00		0.00			
4. SF <sub>6</sub> Used in Aluminium and Magnesium Foundries											
5. Other (please specify) 						NO		NO		NO	
			0.00	0.00	0.00						
<b>D. Other Production</b>						IE					
1. Pulp and Paper	IE										
2. Food and Drink	IE		0.00			IE					
<b>G. Other (please specify) </b>						<b>1.00</b>		<b>0.02</b>		<b>NO</b>	
Food, drink, pulp, paper, crematories			0.00	0.00	0.00	1.00		0.02		NO	
			0.00	0.00	0.00						

<sup>(4)</sup> 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.  
2.C.1. Emissions from Pig Iron, Sinter, Coke are included in "Steel".  
2.D. Emissions are included in 2.G.

**TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF<sub>6</sub>**  
(Sheet 1 of 2)

Switzerland  
1999  
Submission 2001

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 <sup>(1)</sup>	CF <sub>4</sub>	C <sub>2</sub> F <sub>6</sub>	C <sub>3</sub> F <sub>8</sub>	C <sub>4</sub> F <sub>10</sub>	c-C <sub>4</sub> F <sub>8</sub>	C <sub>5</sub> F <sub>12</sub>	C <sub>6</sub> F <sub>14</sub>	Total PFCs <sup>(1)</sup>	SF <sub>6</sub>
	(b) <sup>(2)</sup>																						
Total Actual Emissions of Halocarbons (by chemical) and SF <sub>6</sub>	NO	2.79	NO	NO	18.18	NO	187.08	5.64	NO	17.54	0.75	NO	NO		2.01	1.43	0.28	NO	NO	NO	NO		5.24
<b>C. Metal Production</b>															1.60	0.16							1.00
Aluminium Production															1.60	0.16							0.50
SF <sub>6</sub> Used in Aluminium Foundries																							0.50
SF <sub>6</sub> Used in Magnesium Foundries																							0.50
<b>E. Production of Halocarbons and SF<sub>6</sub></b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		NO
1. By-product Emissions	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		NO
Production of HCFC-22	NO																						
Other																							
2. Fugitive Emissions																							
3. Other (please specify)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		NO
<b>F(a). Consumption of Halocarbons and SF<sub>6</sub> (actual emissions - Tier 2)</b>	NO	2.79	NO	NO	18.18	NO	187.08	5.64	NO	17.54	0.75	NO	NO		0.41	1.27	0.28	NO	NO	NO	NO		4.24
1. Refrigeration and Air Conditioning Equipment		2.79			18.18		161.64			17.54							0.27						
2. Foam Blowing							8.04	5.39															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							17.40	0.25			0.75												
5. Solvents															0.10	0.30	0.01						0.20
6. Semiconductor Manufacture															0.31	0.97	0.00						0.04
7. Electrical Equipment																							3.12
8. Other (please specify)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		0.89
Div																							0.89
<b>G. Other (please specify)</b>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		NO

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

<sup>(2)</sup> 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 SF<sub>6</sub>**  
(Sheet 2 of 2)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mcc	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF <sub>4</sub>	C <sub>2</sub> F <sub>6</sub>	C <sub>3</sub> F <sub>8</sub>	C <sub>4</sub> F <sub>10</sub>	c-C <sub>4</sub> F <sub>8</sub>	C <sub>3</sub> F <sub>12</sub>	C <sub>4</sub> F <sub>14</sub>	Total PFCs	SF <sub>6</sub>
	(t) <sup>(2)</sup>																						
<b>F(p). Total Potential Emissions of Halocarbons (by chemical) and SF<sub>6</sub><sup>(3)</sup></b>	<b>0.10</b>	<b>14.01</b>	<b>NO</b>	<b>0.20</b>	<b>63.78</b>	<b>NO</b>	<b>373.75</b>	<b>2.53</b>	<b>NO</b>	<b>55.97</b>	<b>1.10</b>	<b>NO</b>	<b>NO</b>		<b>0.40</b>	<b>2.40</b>	<b>0.01</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>		<b>20.01</b>
Production <sup>(4)</sup>																							
Import:	0.10	14.01	0.00	0.20	63.78	0.00	434.57	25.70	0.00	55.97	1.10	NO	NO		0.40	2.40	0.01	NO	NO	NO	NO		118.80
In bulk	0.10	9.36		0.20	56.34		183.58	25.70		53.15	1.10				0.40	2.40	0.01						118.80
In products <sup>(5)</sup>	NO	4.65			7.44		250.99			2.82													
Export:	NO	NO	NO	NO	NO	NO	60.82	23.17	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		98.79
In bulk																							
In products <sup>(5)</sup>							60.82	23.17															98.79
Destroyed amount																							
<b>GWP values used</b>	<b>11700</b>	<b>650</b>	<b>150</b>	<b>1300</b>	<b>2800</b>	<b>1000</b>	<b>1300</b>	<b>140</b>	<b>300</b>	<b>3800</b>	<b>2900</b>	<b>6300</b>	<b>560</b>		<b>6500</b>	<b>9200</b>	<b>7000</b>	<b>7000</b>	<b>8700</b>	<b>7500</b>	<b>7400</b>		<b>23900</b>
<b>Total Actual Emissions<sup>(6)</sup> (Gg CO<sub>2</sub> eq.)</b>	<b>NO</b>	<b>1.81</b>	<b>NO</b>	<b>NO</b>	<b>50.90</b>	<b>NO</b>	<b>243.20</b>	<b>0.79</b>	<b>NO</b>	<b>66.66</b>	<b>2.18</b>	<b>NO</b>	<b>NO</b>	<b>365.54</b>	<b>13.09</b>	<b>13.17</b>	<b>1.94</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>28.20</b>	<b>125.31</b>
C. Metal Production															10.40	1.47						11.87	23.90
E. Production of Halocarbons and SF <sub>6</sub>	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO	NO	NO	NO	NO	NO	NO	0.00	NO
F(a). Consumption of Halocarbons and SF <sub>6</sub>	NO	1.81	NO	NO	50.90	NO	243.20	0.79	NO	66.66	2.18	NO	NO	365.54	2.69	11.69	1.94	NO	NO	NO	NO	16.33	101.41
G. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO	NO	NO	NO	NO	NO	NO	0.00	NO
<b>Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF<sub>6</sub></b>																							
Actual emissions - F(a) (Gg CO <sub>2</sub> eq.)	NO	1.81	NO	NO	50.90	NO	243.20	0.79	NO	66.66	2.18	NO	NO	365.54	2.69	11.69	1.94	NO	NO	NO	NO	16.33	101.41
Potential emissions - F(p) (7) (Gg CO <sub>2</sub> eq.)	1.17	9.11	NO	0.26	178.58	NO	485.88	0.35	NO	212.69	3.19	NO	NO	891.22	2.60	22.08	0.07	NO	NO	NO	NO	24.75	478.17
Potential/Actual emissions ratio	0.00	5.03	0.00	0.00	3.51	0.00	2.00	0.45	0.00	3.19	1.47	0.00	0.00	2.44	0.97	1.89	0.04	0.00	0.00	0.00	0.00	1.52	4.72

<sup>(3)</sup> Potential emissions of each chemical of halocarbons and SF<sub>6</sub> 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.

<sup>(4)</sup> 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.

<sup>(5)</sup> Relevant just for Tier 1b.





<sup>(6)</sup> Sums of the actual emissions of each chemical of halocarbons and SF<sub>6</sub> from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

<sup>(7)</sup> Potential emissions of each chemical of halocarbons and SF<sub>6</sub> 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 SF<sub>6</sub>, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO<sub>2</sub> 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 SF<sub>6</sub>**  
**(Sheet 1 of 1)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>	EMISSIONS <sup>(2)</sup>	
	Description <sup>(1)</sup>	(t)		(t)	(3)
<b>C. PFCs and SF<sub>6</sub> from Metal Production</b>					
PFCs from Aluminium Production					
CF <sub>4</sub>			0.00	1.60	
C <sub>2</sub> F <sub>6</sub>			0.00	0.16	
SF <sub>6</sub>				1.00	
Aluminium Foundries	(SF <sub>6</sub> consumption)		0.00	0.50	
Magnesium Foundries			0.00	0.50	
<b>E. Production of Halocarbons and SF<sub>6</sub></b>					
<b>1. By-product Emissions</b>					
Production of HCFC-22					
HFC-23			0.00		
Other (specify chemical) 			0.00		
<b>2. Fugitive Emissions</b>					
HFCs (specify chemical) 					
			0.00		
PFCs (specify chemical) 					
			0.00		
SF <sub>6</sub>			0.00		
<b>3. Other (please specify) </b>					
			0.00		

<sup>(1)</sup> 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.

<sup>(2)</sup> Emissions and implied emission factors are after recovery.









<sup>(3)</sup> 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.

<b>Documentation box:</b>

**TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES**  
**Consumption of Halocarbons and SF<sub>6</sub>**  
(Sheet 1 of 2)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	<i>Amount of fluid</i>	Remained in products at decommissioning <sup>(1)</sup>	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
		In operating systems (average annual stocks)							
		(t)							
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration ( <i>Specify chemical</i> ) <sup>(2)</sup> 									
HFC-134a	0.00	38.65	0.00	0.20	0.50	38.00	0.00	0.19	0.00
Commercial Refrigeration 									
HFC 32	5.53	12.07	0.00	3.00	12.00	10.00	0.17	1.45	0.00
HFC 125	51.44	122.15	0.00	3.00	12.00	10.00	1.54	14.66	0.00
HFC 134a	62.82	593.36	0.00	3.00	12.00	10.00	1.88	71.20	0.00
HFC 143a	52.29	126.17	0.00	3.00	12.00	10.00	1.57	15.14	0.00
Transport Refrigeration 									
HFC 125	0.00	3.59	0.00	1.00	13.81	20.00	0.00	0.50	0.00
HFC 134a	0.00	6.50	0.13	1.00	14.59	20.00	0.00	0.95	0.03
HFC 143a	0.00	4.24	0.00	1.00	13.81	20.00	0.00	0.59	0.00
PFC 228	0.00	1.68	0.10	1.00	15.00	20.00	0.00	0.25	0.02
Industrial Refrigeration 									
included in commercial refr.									
Stationary Air-Conditioning 									
HFC 32	2.69	18.57	0.00	1.00	6.16	10.00	0.03	1.14	0.00
HFC 125	2.93	22.76	0.00	1.00	6.39	10.00	0.03	1.45	0.00
HFC 134a	8.03	124.81	0.00	1.00	5.40	10.00	0.08	6.74	0.00
HFC 143a	0.00	3.03	0.00	1.00	8.17	10.00	0.00	0.25	0.00
Mobile Air-Conditioning 									
HFC 134a	0.00	882.74	10.67	1.00	7.92	100.00	0.00	69.90	10.67
2 Foam Blowing									
Hard Foam 									
HFC 134a	75.40	NE	0.00	10.66	10.00	100.00	8.03	NE	0.00
HFC 152a	25.40	NE	0.00	21.22	10.00	100.00	5.39	NE	0.00
Soft Foam 									








<sup>(1)</sup> 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.

<sup>(2)</sup> 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 SF<sub>6</sub> 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 SF<sub>6</sub>**  
(Sheet 2 of 2)

Switzerland  
1999  
Submission 2001

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 <sup>(1)</sup>	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
<b>3 Fire Extinguishers</b> 									
NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4 Aerosols</b>									
Metered Dose Inhalers 									
HFC 134a									
Other 									
HFC 134a	16.40							17.40	
HFC 152a	0.30							0.25	
HFC 227ea	1.10							0.75	
<b>5 Solvents</b> 									
HFC 43-10mee	0.20							0.10	
CF4	0.10							0.10	
C2F6	0.50							0.30	
C3F8	0.01							0.01	
SF6	0.30							0.20	
<b>6 Semiconductors</b> 									
HFC 23	0.00							0.00	
CF4	0.30							0.31	
C2F6	1.90							0.97	
C3F8	0.00							0.00	
SF6	0.10							0.04	
<b>7 Electric Equipment</b> 									
SF6	112.12	200.00	0.00	1.00	1.00	1.00	1.12	2.00	0.00
<b>8 Other (please specify)</b> 									
SF6	4.26	37.82	0.00	11.89	1.00	0.00	0.51	0.38	0.00

**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.

<b>Documentation box:</b>

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

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	N <sub>2</sub> O	NM VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>
	(Gg)			(Gg)		
Total Solvent and Other Product Use	NO	0.39	104.40	0.04	0.09	0.04
A. Paint Application	NO	NO	26.44	NO	NO	NO
B. Degreasing and Dry Cleaning	NO	NO	8.55	NO	NO	NO
C. Chemical Products, Manufacture and Processing			16.61	NO	NO	NO
D. Other (please specify)	NO	0.39	52.80	0.04	0.09	0.04
Spray cans, cosmetic institutions, hair stylists, house cleaning,	NO	0.39	52.80	0.04	0.09	0.04
laboratories, textile production, vehicles dewaxing, printing industries						

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO<sub>2</sub> columns.

**Note:** The IPCC Guidelines do not provide methodologies for the calculation of emissions of N<sub>2</sub>O 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO <sub>2</sub> (t/t)	N <sub>2</sub> O (t/t)
<b>A. Paint Application</b>	construction, industry, households		NO	NO
<b>B. Degreasing and Dry Cleaning</b>	dry cleaning, degreasing of metals and electronics		NO	NO
<b>C. Chemical Products, Manufacture and Processing</b>				
<b>D. Other (please specify)<sup>(1)</sup></b>				
Spray cans, cosmetic institutions, hair stylists, house cleaning, laboratories, textile production, vehicles dewaxing, printing industry			NO	NO
			NO	NO
			NO	NO
(Other Use of N <sub>2</sub> O)			NO	NO

<sup>(1)</sup> 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 in the actual output configuration only aggregated emissions. Only NMVOC emissions occurring.</p>



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

Switzerland

1999

Submission 2001


GREENHOUSE GAS SOURCE AND SINK	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
CATEGORIES	(Gg)				
<b>Total Agriculture</b>	<b>134.55</b>	<b>8.27</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>A. Enteric Fermentation</b>	<b>115.86</b>				
1. Cattle	109.86				
Dairy Cattle	71.70				
Non-Dairy Cattle	38.16				
2. Buffalo	NO				
3. Sheep	2.86				
4. Goats	0.53				
5. Camels and Llamas	NO				
6. Horses	0.99				
7. Mules and Asses	NE				
8. Swine	1.53				
9. Poultry	0.09				
10. Other ( <i>please specify</i> ) 	0.00				
<b>B. Manure Management</b>	<b>18.69</b>	<b>1.35</b>			<b>NO</b>
1. Cattle	13.09				
Dairy Cattle	10.10				
Non-Dairy Cattle	2.99				
2. Buffalo	NO				
3. Sheep	0.06				
4. Goats	0.01				
5. Camels and Llamas	NO				
6. Horses	0.28				
7. Mules and Asses	NE				
8. Swine	5.15				
9. Poultry	0.10				

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

Switzerland  
1999  
Submission 2001


GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub> (Gg)	CO	NMVOC
B. Manure Management (continued)					
10. Anaerobic Lagoons		NO			
11. Liquid Systems		0.13			
12. Solid Storage and Dry Lot		1.22			
13. Other (please specify) ■■		NO			NO
C. Rice Cultivation	NO				NO
1. Irrigated					
2. Rainfed					
3. Deep Water					
4. Other (please specify) ■■					
D. Agricultural Soils <sup>(1)</sup>	NO	6.92			NO
1. Direct Soil Emissions		4.01			
2. Animal Production		0.54			
3. Indirect Emissions		2.37			
4. Other (please specify) ■■	NO	NO			NO
E. Prescribed Burning of Savannas	NO	NO			
F. Field Burning of Agricultural Residues	NO	NO	NO	NO	NO
1. Cereals	NO	NO			
2. Pulse	NO	NO			
3. Tuber and Root	NO	NO			
4. Sugar Cane	NO	NO			
5. Other (please specify) ■■	NO	NO	NO	NO	NO
G. Other (please specify) ■■	NO	NO	NO	NO	NO

<sup>(1)</sup> See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO<sub>2</sub> 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 CO<sub>2</sub> 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 CH<sub>4</sub> emissions, CH<sub>4</sub> and N<sub>2</sub>O removals from agricultural soils, or CO<sub>2</sub> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA <sup>(1)</sup> AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size <sup>(2)</sup>	Average daily feed intake	CH <sub>4</sub> conversion	CH <sub>4</sub>
	(1000 head)	(MJ/day)	(%)	(kg CH <sub>4</sub> /head/yr)
1. Cattle	1'609			68.28
Dairy Cattle <sup>(3)</sup>	725	251.3	6.00	98.89
Non-Dairy Cattle	884	109.7	6.00	43.17
2. Buffalo	NO			NO
3. Sheep	424	20.6	5.00	6.76
4. Goats	62	26.0	5.00	8.53
5. Camels and Llamas	NO			NO
6. Horses	49	153.8	2.00	20.18
7. Mules and Asses	NE			NE
8. Swine	1'453	31.7	0.51	1.05
9. Poultry	6'886	2.2	0.09	0.01
10. Other (please specify) 				
				0.00

Additional information (for Tier 2)<sup>(a)</sup>

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

<sup>(a)</sup> 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.

<sup>(b)</sup> Disaggregate to the split actually used. Add columns to the table if necessary.

<sup>(c)</sup> Specify feeding situation as pasture, stall fed, confined, open range, etc.

<sup>(1)</sup> 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.

<sup>(2)</sup> 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 CH<sub>4</sub> emissions from enteric fermentation, CH<sub>4</sub> and N<sub>2</sub>O from manure management, N<sub>2</sub>O direct emissions from soil and N<sub>2</sub>O 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.

<sup>(3)</sup> 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 Values given in column C are the gross energy intake per head and day

Livestock population data 1999	head	kg N/head/year	Frac <sub>GASM</sub> <sup>(a)</sup>	N volatilized (kg N)
<b>Cattle</b>	<b>1608735</b>			
dairy cows <sup>(1)</sup>	724778	109	0.335	26489549
rearing cattle 1st year	218680	26	0.235	1336135
rearing cattle 2nd year	187547	42	0.235	1851089
rearing cattle 3rd year	117935	63	0.235	1746028
fattening calves	149567	12	0.385	691000
fattening cattle < 1/2 year	47752	8	0.385	147076
fattening cattle >1/2 year	162476	35	0.385	2189364
<b>Pigs</b>	<b>1453250</b>			
fattening pig places <sup>(2)</sup>	830460	15	0.475	5917028
breeding pig places <sup>(3)</sup>	139313	35	0.475	2316079
<b>Sheep</b>	<b>423521</b>			
sheep places <sup>(4)</sup>	221743	16	0.155	549923
<b>Goats</b>	<b>61566</b>			
goat places <sup>(5)</sup>	36675	18	0.305	201346
<b>Horses</b>	<b>48509</b>			
foals < 1 year	4321	17	0.335	24608
foals 1-3 years	6645	30	0.335	66782
horses > 3 years	37543	61	0.335	767191
<b>Ponies, Mules and Asses</b>	<b>11291</b>	25	0.335	94562
<b>Poultry</b>	<b>6885673</b>			
laying hens	2222788	0.71	0.555	875890
young hens < 18 weeks	760852	0.34	0.555	143573
broilers	3747449	0.4	0.495	741995
turkeys	154584	1.4	0.495	107127
<b>Total</b>				<b>46256342</b>

<sup>(1)</sup> 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 1999: 5390 kg/head/year

<sup>(2)</sup> one fattening pig place per fattening pig > 25 kg

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

<sup>(4)</sup> one sheep place per ewe > 1 year

<sup>(5)</sup> one goat place per goat > 1.5 years

<sup>(a)</sup> 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  
CH<sub>4</sub> Emissions from Manure Management  
(Sheet 1 of 1)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS CH <sub>4</sub>	
	Population size (1)	Allocation by climate region (2)			Typical animal mass	VS <sup>(3)</sup> daily excretion		CH <sub>4</sub> producing potential (Bo) <sup>(3)</sup>
		Cool	Temperate	Warm				
(1000 head)					(kg)	(kg dm <sup>3</sup> /head/yr)	(CH <sub>4</sub> m <sup>3</sup> /kg VS)	(kg CH <sub>4</sub> /head/yr)
1. Cattle	1'609	100						8.14
Dairy Cattle <sup>(4)</sup>	725	100				1'267.0	0.24	13.94
Non-Dairy Cattle	884	100				522.0	0.17	3.38
2. Buffalo	NO							NO
3. Sheep	424	100				102.0	0.19	0.13
4. Goats	62	100				128.7	0.17	0.15
5. Camels and Llamas	NO							NO
6. Horses	49	100				1'369.0	0.33	5.81
7. Mules and Asses	IE							IE
8. Swine	1'453	100				125.4	0.45	3.54
9. Poultry	6'886	100				7.0	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.

Additional information (for Tier 2)

Animal category (a)	Breedings	Animal waste management system						
		Climate region	Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddocks	Other
Dairy Cattle	Allocation (%)	Cool	0.00	64.90	0.00	27.80	7.30	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Rearing Cattle	Allocation (%)	Cool	0.00	33.00	0.00	26.00	41.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Fattening Cattle	Allocation (%)	Cool	0.00	89.20	0.00	8.80	2.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Fattening Calves	Allocation (%)	Cool	0.00	0.00	0.00	98.00	2.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Swine	Allocation (%)	Cool	0.00	93.00	0.00	7.00	0.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Sheep	Allocation (%)	Cool	0.00	0.00	0.00	31.00	69.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Goats	Allocation (%)	Cool	0.00	0.00	0.00	80.00	20.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Horses	Allocation (%)	Cool	0.00	10.20	0.00	82.80	7.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Poultry	Allocation (%)	Cool	0.00	0.00	0.00	100.00	0.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	Cool						
		Temperate						
		Warm						
Distribution of VS	Allocation (%)	Cool	0.00	52.00	0.00	23.00	25.00	0.00
		Temperate						
		Warm						
	Mg <sup>dm</sup>	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**  
**N<sub>2</sub>O Emissions from Manure Management**  
**(Sheet 1 of 1)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1)	Nitrogen excretion	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system	
	(1000s)	(kg N/head/yr)	Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other	(kg N <sub>2</sub> O-N/kg N)	
Non-Dairy Cattle									Anaerobic lagoon	0.000
Dairy Cattle	725	109.1	0	51'334'278	0	21'989'105	5'774'118	0	Liquid system	0.001
Sheep	222	16.0	0	0	0	1'101'120	2'450'880	0	Solid storage and dry lot	0.020
Swine									Other	0.000
Poultry	6'886	0.52	0	0	0	3'552'435	0	0		
Other (please specify) <input type="text"/>										
Rearing cattle 1st year	219	26.0	0	1'879'020	0	1'480'440	2'334'540	0		
Rearing cattle 2nd year	188	42.0	0	2'605'680	0	2'052'960	3'237'360	0		
Rearing cattle 3rd year	118	63.0	0	2'453'220	0	1'932'840	3'047'940	0		
Fattening cattle > 1/2 year	162	35.0	0	5'057'640	0	498'960	113'400	0		
Fattening cattle < 1/2 year	48	8.0	0	0	0	376'320	7'680	0		
Fattening calves	150	12.0	0	0	0	1'764'000	36'000	0		
Fattening pig places	830	15.0	0	11'578'500	0	871'500	0	0		
Breeding pig places	139	35.0	0	4'524'450	0	340'550	0	0		
Goats	37	18.0	0	0	0	532'800	133'200	0		
Horses	49	52.8	0	264'065	0	2'143'586	181'221	0		
Mules and Asses	11	25.0	0	28'050	0	227'700	19'250	0		
<b>Total per AWMS<sup>(2)</sup></b>			<b>0</b>	<b>79'724'902</b>	<b>0</b>	<b>38'864'316</b>	<b>17'335'589</b>	<b>0</b>		

<sup>(1)</sup> See footnote 1 to Table 4.A of this common reporting format.

<sup>(2)</sup> 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.

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR <sup>(1)</sup>	EMISSIONS
	Harvested area <sup>(2)</sup> (10 <sup>-9</sup> m <sup>2</sup> /yr)	Organic amendments added <sup>(3)</sup> :		CH <sub>4</sub> (g/m <sup>2</sup> )	CH <sub>4</sub> (Gg)
		type	(t/ha)		
<b>1. Irrigated</b>					<b>NO</b>
Continuously Flooded	NO	NO	NO	0.00	NO
Intermittently Flooded	NO	NO	NO	0.00	NO
Single Aeration	NO	NO	NO	0.00	NO
Multiple Aeration	NO	NO	NO	0.00	NO
<b>2. Rainfed</b>					<b>NO</b>
Flood Prone	NO	NO	NO	0.00	NO
Drought Prone	NO	NO	NO	0.00	NO
<b>3. Deep Water</b>					<b>NO</b>
Water Depth 50-100 cm	NO	NO	NO	0.00	NO
Water Depth > 100 cm	NO	NO	NO	0.00	NO
<b>4. Other (please specify)</b>					<b>NO</b>
				0.00	
Upland Rice <sup>(4)</sup>					
Total <sup>(4)</sup>	0.00				

<sup>(1)</sup> 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.

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

<sup>(3)</sup> Specify dry weight or wet weight for organic amendments.

<sup>(4)</sup> 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

**TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE**

**Agricultural Soils<sup>(1)</sup>**

(Sheet 1 of 1)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS		EMISSIONS (Gg N <sub>2</sub> O)
	Description	Value	Unit		
<b>Direct Soil Emissions</b>	<b>N input to soils (kg N/yr)</b>				<b>4.01</b>
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	57'058'000	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.0125	1.12
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	75'238'218	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.0125	1.48
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	1'162'705'831	(kg N <sub>2</sub> O-N/kg dry biomass) <sup>(2)</sup>	0.000	0.65
Crop Residue	Dry production of other crops (kg dry biomass/yr)	9'244'081'800	(kg N <sub>2</sub> O-N/kg dry biomass) <sup>(2)</sup>	0.000	0.71
Cultivation of Histosols	Area of cultivated organic soils (ha)	7'000	(kg N <sub>2</sub> O-N/ha) <sup>(2)</sup>	5.000	0.06
<b>Animal Production</b>	<b>N excretion on pasture range and paddock (kg N/yr)</b>	<b>17'335'589</b>	<b>(kg N<sub>2</sub>O-N/kg N)<sup>(2)</sup></b>	<b>0.020</b>	<b>0.54</b>
<b>Indirect Emissions</b>					<b>2.37</b>
Atmospheric Deposition	Volatized N (NH <sub>3</sub> and NO <sub>x</sub> ) from fertilizers and animal wastes (kg N/yr)	52'135'692	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.010	0.82
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	38'596'561	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.025	1.54
<b>Other (please specify)</b>					<b>NO</b>
				0.000	

**Additional information**

Fraction <sup>(a)</sup>	Description	Value
Frac <sub>BURN</sub>	Fraction of crop residue burned	0.00
Frac <sub>FUEL</sub>	Fraction of livestock N excretion in excrements burned for fuel	0.00
Frac <sub>GASF</sub>	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH <sub>3</sub> and NO <sub>x</sub>	0.075
Frac <sub>GASM</sub>	Fraction of livestock N excretion that volatilizes as NH <sub>3</sub> and NO <sub>x</sub>	0.34
Frac <sub>GRAZ</sub>	Fraction of livestock N excreted and deposited onto soil during grazing	0.13
Frac <sub>LEACH</sub>	Fraction of N input to soils that is lost through leaching and runoff	0.20
Frac <sub>NCRBF</sub>	Fraction of N in non-N-fixing crop	
Frac <sub>NCRO</sub>	Fraction of N in N-fixing crop	
Frac <sub>R</sub>	Fraction of crop residue removed from the field as crop	

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

<sup>(1)</sup> See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO<sub>2</sub> 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.

<sup>(2)</sup> To convert from N<sub>2</sub>O-N to N<sub>2</sub>O 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: 43351 t NH<sub>3</sub>-N from liquid and solid manure, 3642 t NH<sub>3</sub>-N from synthetic fertilizers (6% of 60700t), 867 t NH<sub>3</sub>-N from pasture range (5% of 17335t)

1600 t NH<sub>3</sub>-N from soils (1.5 kg NH<sub>3</sub>-N/ha) and 2948 t NO<sub>x</sub>-N from synthetic fertilizers and animal wastes (1.5% of 196564t)

The fractions Frac<sub>NCRBF</sub>, Frac<sub>NCRO</sub> and Frac<sub>R</sub> were not needed for the calculation of N<sub>2</sub>O emissions from crop residues and N fixation and therefore not calculated

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

Switzerland  
1999  
Submission 2001

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 <sub>4</sub>	N <sub>2</sub> O	CH <sub>4</sub>	N <sub>2</sub> O
(specify ecological zone) <input type="text"/>								NO	NO
						0.00	0.00		

**Additional information**

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

<b>Documentation box:</b> NO
---------------------------------



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

Switzerland  
 1999  
 Submission 2001






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 <sub>4</sub>	N <sub>2</sub> O	CH <sub>4</sub>	N <sub>2</sub> O						
							(kg/t dm)	(kg/t dm)	(Gg)	(Gg)						
<b>1. Cereals</b>									<b>0.00</b>	<b>0.00</b>						
Wheat	489949.00	0.0063	0.85	0.00			0.00	0.00			3101	416456650	61			
Barley	255071.00	0.0043	0.85	0.00			0.00	0.00			1104	216810350	22			
Maize	194321.00	0.0071	0.85	0.00			0.00	0.00			1386	165172850	27			
Oats	27996.00	0.0064	0.85	0.00			0.00	0.00			178	23796600	3			
Rye	18538.00	0.0102	0.85	0.00			0.00	0.00			189	15757300	4			
Rice	NO						0.00	0.00								
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Spelt	5564.00	0.0112	0.85	0.00			0.00	0.00			62	4729400	1			
Triticale	43779.00	0.0100	0.85	0.00			0.00	0.00			438	37212150	9			
							0.00	0.00								
<b>2. Pulse <sup>(1)</sup></b>									<b>0.00</b>	<b>0.00</b>						
Dry bean	926.00	0.0338	0.85	0.00			0.00	0.00			31	787100	1	0.0443	40976	0.8
Pean	9192.00	0.0200	0.88	0.00			0.00	0.00			184	8088960	4	0.0276	253699	5.0
Soybeans	7553.00	0.0400	0.85	0.00			0.00	0.00			302	6420050	6	0.0600	453180	8.9
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Leguminous vegetables	15033.00	0.0185	0.18	0.00			0.00	0.00			278	2705940	5	0.0177	266084	5.2
							0.00	0.00								
<b>3 Tuber and Root</b>									<b>0.00</b>	<b>0.00</b>						
Potatoes	484000.00	0.0010	0.22	0.00			0.00	0.00			499	106480000	10			
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Fodder beet	265000.00	0.0014	0.16	0.00			0.00	0.00			371	42400000	7			
Sugar Beet	1'186176.00	0.0023	0.22	0.00			0.00	0.00			2669	260958720	52			
							0.00	0.00								
<b>4 Sugar Cane</b>							<b>0.00</b>	<b>0.00</b>								
<b>5 Other (please specify)</b>									<b>0.00</b>	<b>0.00</b>						
Grass	6467253.00	0.0036	1.00	0.00			0.00	0.00			23023	6467253000	452	0.0049	31948230	627.6
Silage corn	1276000.00	0.0003	1.00	0.00			0.00	0.00			357	1276000000	7			
Fruits	341629.00	0.0007	0.17	0.00			0.00	0.00			232	58076930	5			
Vine	171017.00	0.0012	0.20	0.00			0.00	0.00			205	34203400	4			
Renewable energy crops	4268.00	0.0140	0.90	0.00			0.00	0.00			60	3841200	1			
Non-leguminous vegetables	285635.00	0.0031	0.20	0.00			0.00	0.00			894	57127000	18			
Sunflowers	4962.00	0.0180	0.85	0.00			0.00	0.00			89	4217700	2			
Tobacco	1'103.00	0.0260	1.00	0.00			0.00	0.00			29	1103000	1			
Rape	38315.00	0.0140	0.90	0.00			0.00	0.00			536	34483500	11			
							0.00	0.00								

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

<b>Documentation Box:</b>
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.

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> emissions	CO <sub>2</sub> removals	Net CO <sub>2</sub> emissions/ removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO
	(Gg)						
<b>Total Land-Use Change and Forestry</b>	<b>0.00</b>	<b>-4'226.00</b>	<b>-4'226.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>A. Changes in Forest and Other Woody Biomass Stocks</b>	<b>0.00</b>	<b>-4'226.00</b>	<b>-4'226.00</b>				
1. Tropical Forests			0.00				
2. Temperate Forests		-4'226.00	-4'226.00				
3. Boreal Forests			0.00				
4. Grasslands/Tundra			0.00				
5. Other (please specify) 	0.00	0.00	0.00				
Harvested Wood <sup>(1)</sup>			0.00				
			0.00				
<b>B. Forest and Grassland Conversion <sup>(2)</sup></b>	<b>NO</b>			<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other (please specify) 	NO			NO	NO	NO	NO
<b>C. Abandonment of Managed Lands</b>	<b>IE</b>	<b>IE</b>	<b>IE</b>				
1. Tropical Forests			NO				
2. Temperate Forests			IE				
3. Boreal Forests			NO				
4. Grasslands/Tundra			NO				
5. Other (please specify) 	NO	NO	NO				
			0.00				
<b>D. CO<sub>2</sub> Emissions and Removals from Soil</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>				
Cultivation of Mineral Soils			NE				
Cultivation of Organic Soils			NE				
Liming of Agricultural Soils			NO				
Forest Soils			NE				
Other (please specify) <sup>(3)</sup> 	0.00	0.00	NO				
			0.00				
<b>E. Other (please specify) </b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
			0.00				

<sup>(1)</sup> 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).

<sup>(2)</sup> Include only the emissions of CO<sub>2</sub> from Forest and Grassland Conversion. Associated removals should be reported under section D.

<sup>(3)</sup> 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  
1999  
Submission 2001

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>	NO		0.00	
		<i>Eucalyptus spp.</i>	NO		0.00	
		<i>Tectona grandis</i>	NO		0.00	
		<i>Pinus spp.</i>	NO		0.00	
		<i>Pinus caribaea</i>	NO		0.00	
		Mixed Hardwoods	NO		0.00	
		Mixed Fast-Growing Hardwoods	NO		0.00	
		Mixed Softwoods	NO		0.00	
	Other Forests	Moist	NO		0.00	
		Seasonal	NO		0.00	
		Dry	NO		0.00	
	Other (specify) ■■■		NO		0.00	
Temperate	Plantations		NO		0.00	
			NO		0.00	
	Commercial	Evergreen	789.00	5.06	2.53	1'996.50
		Deciduous	325.00	7.33	3.66	1'190.50
	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
					0.00	
Total annual growth increment (Gg C)						3'187.00
Gg CO <sub>2</sub>						11'685.67
			Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)	
Total biomass removed in Commercial Harvest			2'211.00	0.50	1'105.50	
Traditional Fuelwood Consumed			705.00	0.50	352.50	
Total Other Wood Use				0.00		
Total Biomass Consumption from Stocks <sup>(1)</sup> (Gg C)						1'458.00
Other Changes in Carbon Stocks <sup>(2)</sup> (Gg C)						576.50
Gg CO <sub>2</sub>						7'459.83
Net annual carbon uptake (+) or release (-) (Gg C)						1'152.50
Net CO <sub>2</sub> emissions (-) or removals (+) (Gg CO <sub>2</sub> )						4'225.83

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

<sup>(2)</sup> 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.

<b>Documentation box:</b>

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

Switzerland  
1999  
Submission 2001

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 <sup>(1)</sup>													
		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 <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O							
														CO <sub>2</sub>	CO <sub>2</sub>		CO <sub>2</sub>	
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> <div></div>									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

<sup>(1)</sup> 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)		
Total annual carbon release (Gg C)	0.00	
Total annual CO <sub>2</sub> emissions (Gg CO <sub>2</sub> )	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

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing <sup>(1)</sup>		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)
<b>Original natural ecosystems</b>											
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) <input type="text"/>								0.00	0.00		
								0.00	0.00		
Total annual carbon uptake (Gg C)										0.00	
Total annual CO <sub>2</sub> removal (Gg CO <sub>2</sub> )										0.00	

<sup>(1)</sup> 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.

<b>Documentation box:</b>
IE (included within 5.A)

**TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY**  
**CO<sub>2</sub> Emissions and Removals from Soil**  
(Sheet 1 of 1)

Switzerland  
1999  
Submission 2001

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)
<b>Cultivation of Mineral Soils <sup>(1)</sup></b>	NE		<b>0.00</b>
High Activity Soils	NE	0.00	
Low Activity Soils	NE	0.00	
Sandy	NE	0.00	
Volcanic	NE	0.00	
Wetland (Aquic)	NE	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)
<b>Cultivation of Organic Soils</b>			<b>0.00</b>
<b>Cool Temperate</b>			<b>0.00</b>
Upland Crops	NE	0.00	
Pasture/Forest	NE	0.00	
<b>Warm Temperate</b>			<b>0.00</b>
Upland Crops	NE	0.00	
Pasture/Forest	NE	0.00	
<b>Tropical</b>			<b>0.00</b>
Upland Crops	NO	0.00	
Pasture/Forest	NO	0.00	
	Total annual amount of lime (Mg)	Carbon conversion factor	Carbon emissions from liming (Mg C)
<b>Liming of Agricultural Soils</b>			<b>0.00</b>
Limestone Ca(CO <sub>3</sub> )	NO	0.00	
Dolomite CaMg(CO <sub>3</sub> ) <sub>2</sub>	NO	0.00	

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

<sup>(1)</sup> 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.

<b>Documentation Box:</b>
NE

**Additional information**

Year	Climate <sup>(a)</sup>	land-use/ management system <sup>(a)</sup>	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								




<sup>(a)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> <sup>(1)</sup>	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC	SO <sub>2</sub>
	(Gg)						
<b>Total Waste</b>	<b>1'407.00</b>	<b>62.60</b>	<b>0.32</b>	<b>5.27</b>	<b>3.30</b>	<b>1.17</b>	<b>2.30</b>
<b>A. Solid Waste Disposal on Land</b>	<b>134.00</b>	<b>60.88</b>		<b>0.55</b>	<b>0.95</b>	<b>0.72</b>	<b>0.03</b>
1. Managed Waste Disposal on Land	134.00	60.88		0.55	0.95	0.72	0.03
2. Unmanaged Waste Disposal Sites	NO	NO		NO	NO	NO	NO
3. Other ( <i>please specify</i> ) 	NO	NO		NO	NO	NO	NO
<b>B. Wastewater Handling</b>		<b>1.60</b>	<b>0.07</b>	<b>0.54</b>	<b>0.42</b>	<b>0.01</b>	<b>1.31</b>
1. Industrial Wastewater		IE	IE	IE	IE	IE	IE
2. Domestic and Commercial Wastewater		1.60	0.07	0.54	0.42	0.01	1.31
3. Other ( <i>please specify</i> ) 		0.00	0.00	0.00	0.00	0.00	0.00
<b>C. Waste Incineration</b>	<b>1'273.00</b>	<b>0.12</b>	<b>0.25</b>	<b>4.18</b>	<b>1.93</b>	<b>0.39</b>	<b>0.96</b>
<b>D. Other (<i>please specify</i>)</b> 	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>0.002</b>	<b>0.05</b>	<b>NO</b>
Shredder	NO	NO	NO	NO	0.002	0.05	NO

<sup>(1)</sup> Note that CO<sub>2</sub> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS <sup>(1)</sup>	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH <sub>4</sub> recovery <sup>(2)</sup> (Gg)	CH <sub>4</sub> (t / t MSW)	CO <sub>2</sub> (t / t MSW)	CH <sub>4</sub> (Gg)	CO <sub>2</sub> <sup>(3)</sup> (Gg)
1 Managed Waste Disposal on Land					0.00	0.00	60.88	134.00
2 Unmanaged Waste Disposal Sites					0.00	0.00	NO	NO
- deep (>5 m)					0.00	0.00		
- shallow (<5 m)					0.00	0.00		
3 Other (please specify) <input type="checkbox"/>							NO	NO
					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 <sub>2</sub> (kg/t waste)	CH <sub>4</sub> (kg/t waste)	N <sub>2</sub> O (kg/t waste)	CO <sub>2</sub> <sup>(3)</sup> (Gg)	CH <sub>4</sub> (Gg)	N <sub>2</sub> O (Gg)
Waste Incineration (please specify) <input type="checkbox"/>					1'273.00	0.12	0.25
(biogenic) <sup>(3)</sup>	2'400.00	517.08	0.00	0.00	1'241.00		
(plastics and other non-biogenic waste) <sup>(3)</sup>	2'400.00	530.42	0.05	0.10	1'273.00	0.12	0.25
		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.

<sup>(1)</sup> Actual emissions (after recovery).

<sup>(2)</sup> CH<sub>4</sub> recovered and flared or utilized.

<sup>(3)</sup> Under Waste Disposal, CO<sub>2</sub> emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO<sub>2</sub> emissions from non-biogenic wastes are included in the totals, while the CO<sub>2</sub> 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.

Waste disposal: specific model.

Waste incineration: 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) <sup>(a)</sup>	7'160.00
Urban population (1000s) <sup>(a)</sup>	
Waste generation rate (kg/capita/day)	1.68
Fraction of MSW disposed to SWDS	0.10
Fraction of DOC in MSW	
Fraction of wastes incinerated	0.46
Fraction of wastes recycled	0.44
CH <sub>4</sub> oxidation factor (b)	
CH <sub>4</sub> fraction in landfill gas	
Number of SWDS recovering CH <sub>4</sub>	13.00
CH <sub>4</sub> generation rate constant (k) <sup>(c)</sup>	
Time lag considered (yr) <sup>(c)</sup>	
Composition of landfilled waste (%)	
Paper and paperboard	28.00
Food and garden waste	27.00
Plastics	14.00
Glass	3.00
Textiles	3.00
Other (specify) <input type="checkbox"/>	
other - inert	25.00
other - organic	0.00

<sup>(a)</sup> Specify whether total or urban population is used and the rationale for doing so.

<sup>(b)</sup> See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

<sup>(c)</sup> For Parties using Tier 2 methods.



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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION <sup>(1)</sup>				IMPLIED EMISSION FACTOR			EMISSIONS <sup>(2)</sup>		
	Total organic product		CH <sub>4</sub> recovered and/or flared		CH <sub>4</sub>		N <sub>2</sub> O <sup>(3)</sup> (kg/kg DC)	CH <sub>4</sub>		N <sub>2</sub> O <sup>(3)</sup> (Gg)
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC <sup>(1)</sup> /yr)		(Gg)		(kg/kg DC)	(kg/kg DC)		(Gg)	(Gg)	
Industrial Wastewater					0.00	0.00				
Domestic and Commercial Wastewater					0.00	0.00		1.60		0.07
Other (please specify) <input type="checkbox"/>								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
	Population <sup>(4)</sup> (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N <sub>2</sub> O (kg N <sub>2</sub> O-N/kg sewage N produced)		N <sub>2</sub> O (Gg)
N <sub>2</sub> O from human sewage <sup>(3)</sup>				0.00		

<sup>(1)</sup> 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)).

<sup>(2)</sup> Actual emissions (after recovery).

<sup>(3)</sup> Parties using other methods for estimation of N<sub>2</sub>O 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.

<sup>(4)</sup> 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 <sup>3</sup> ):		
Treated wastewater (%):	100.00	100.00

Wastewater streams:	Wastewater output (m <sup>3</sup> )	DC (kgCOD/m <sup>3</sup> )
<b>Industrial wastewater</b>		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other (specify) <input type="checkbox"/>		
DC (kg BOD/1000 person/yr)		
<b>Domestic and Commercial</b>		
<b>Other</b> <input type="checkbox"/>		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other (specify) <input type="checkbox"/>				

**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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>		PFCs <sup>(1)</sup>		SF <sub>6</sub>		NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
		emissions	removals			P	A	P	A	P	A				
		(Gg)				CO <sub>2</sub> equivalent (Gg)				(Gg)					
Total National Emissions and Removals		44'834.34	-4'226.00	215.62	11.61	891.22	365.54	24.75	28.20	0.02	0.01	98.68	399.59	165.18	25.51
1. Energy		41'181.34		18.06	2.32							93.05	384.90	51.80	19.83
A. Fuel Combustion	Reference Approach <sup>(2)</sup>	41'255.57													
	Sectoral Approach <sup>(2)</sup>	41'104.34		5.68	2.32							92.99	384.89	44.91	19.83
1. Energy Industries		1'125.93		0.07	0.003							1.11	0.29	0.04	1.18
2. Manufacturing Industries and Construction		5'499.13		0.40	0.04							9.86	16.59	0.46	5.18
3. Transport		15'315.63		2.31	2.09							56.09	243.43	31.39	2.13
4. Other Sectors		18'436.62		2.60	0.17							19.02	83.75	7.29	11.15
5. Other		727.04		0.31	0.02							6.91	40.82	5.72	0.19
B. Fugitive Emissions from Fuels		77.00		12.38	NO							0.06	0.01	6.89	NO
1. Solid Fuels		NO		NO	NO							NO	NO	NO	NO
	2. Oil and Natural Gas	77.00		12.38	NO							0.06	0.01	6.89	NO
2. Industrial Processes		2'246.00		0.43	0.31	891.22	365.54	24.75	28.20	0.020	0.005	0.32	11.30	7.81	3.35
A. Mineral Products		2'100.00		0.02	NO							0.01	2.11	3.48	2.28
B. Chemical Industry		13.00		0.39	0.31	NO	NO	NO	NO	NO	NO	0.01	1.18	0.29	0.50
C. Metal Production		132.00		NE	NE			11.87		0.001		0.19	2.66	0.32	0.38
D. Other Production <sup>(3)</sup>		NO										NO	NO	NO	NO
E. Production of Halocarbons and SF <sub>6</sub>							NO		NO		NO				
F. Consumption of Halocarbons and SF <sub>6</sub>						891.22	365.54	24.75	16.33	0.020	0.004				
G. Other		1.00		0.02	NE	NO	NO	NO	NO	NO	NO	0.11	5.36	3.73	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.

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

<sup>(2)</sup> 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.

<sup>(3)</sup> 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.


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

(Sheet 2 of 3)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>		PFCs <sup>(1)</sup>		SF <sub>6</sub>		NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
	emissions	removals			P	A	P	A	P	A				
	(Gg)				CO <sub>2</sub> equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	NO			0.39							0.04	0.09	104.40	0.04
4. Agriculture	NO	NO	134.55	8.27							NO	NO	NO	NO
A. Enteric Fermentation			115.86											
B. Manure Management			18.69	1.35									NO	
C. Rice Cultivation			NO										NO	
D. Agricultural Soils	<sup>(4)</sup> NO	<sup>(4)</sup> NO	NO	6.92									NO	
E. Prescribed Burning of Savannas			NO	NO							NO	NO	NO	
F. Field Burning of Agricultural Residues			NO	NO							NO	NO	NO	
G. Other			NO	NO							NO	NO	NO	
5. Land-Use Change and Forestry	<sup>(5)</sup> 0.00	<sup>(5)</sup> -4'226.00	NE	NE							NE	NE	NE	NE
A. Changes in Forest and Other Woody Biomass Stocks	<sup>(5)</sup> 0.00	<sup>(5)</sup> -4'226.00												
B. Forest and Grassland Conversion	NO		NO	NO							NO	NO		
C. Abandonment of Managed Lands	<sup>(5)</sup> IE	<sup>(5)</sup> IE												
D. CO <sub>2</sub> Emissions and Removals from Soil	<sup>(5)</sup> NE	<sup>(5)</sup> NE												
E. Other	<sup>(5)</sup> NO	<sup>(5)</sup> NO	NO	NO							NO	NO		
6. Waste	1'407.00		62.60	0.32							5.27	3.30	1.17	2.30
A. Solid Waste Disposal on Land	<sup>(6)</sup> 134.00		60.88								0.55	0.95	0.72	0.03
B. Wastewater Handling			1.60	0.07							0.54	0.42	0.01	1.31
C. Waste Incineration	<sup>(6)</sup> 1'273.00		0.12	0.25							4.18	1.93	0.39	0.96
D. Other	NO		NO	NO							NO	0.002	0.05	NO
7. Other (please specify) 	0.00	0.00	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

<sup>(4)</sup> According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO<sub>2</sub> 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 CO<sub>2</sub> 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).

<sup>(5)</sup> Please do not provide an estimate of both CO<sub>2</sub> emissions and CO<sub>2</sub> removals. "Net" emissions (emissions - removals) of CO<sub>2</sub> should be estimated and a single number placed in either the CO<sub>2</sub> emissions or CO<sub>2</sub> removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

<sup>(6)</sup> Note that CO<sub>2</sub> 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)**

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs		PFCs		SF <sub>6</sub>		NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
	emissions	removals			P	A	P	A	P	A				
	(Gg)				CO <sub>2</sub> equivalent (Gg)				(Gg)					
Memo Items: <sup>(7)</sup>														
International Bunkers	4'520.00		NE	NE							NE	NE	NE	NE
Aviation	4'520.00		NE	NE							NE	NE	NE	NE
Marine	NO		NO	NO							NO	NO	NO	NO
Multilateral Operations	NO		NO	NO							NO	NO	NO	NO
CO <sub>2</sub> Emissions from Biomass	1'894.42													

<sup>(7)</sup> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub> emissions	CO <sub>2</sub> removals	CH <sub>4</sub>	N <sub>2</sub> O	HFCs <sup>(1)</sup>		PFCs <sup>(1)</sup>		SF <sub>6</sub>		NO <sub>x</sub>	CO	NM VOC	SO <sub>2</sub>
						P	A	P	A	P	A				
		(Gg)				CO <sub>2</sub> equivalent (Gg)				(Gg)					
Total National Emissions and Removals		44'834.34	-4'226.00	215.62	11.61	891.22	365.54	24.75	28.20	0.020	0.005	98.68	399.59	165.18	25.51
1. Energy		41'181.34		18.06	2.32							93.05	384.90	51.80	19.83
A. Fuel Combustion	Reference Approach <sup>(2)</sup>	41'255.57													
	Sectoral Approach <sup>(2)</sup>	41'104.34		5.68	2.32							92.99	384.89	44.91	19.83
B. Fugitive Emissions from Fuels		77.00		12.38	NO							0.06	0.01	6.89	NO
2. Industrial Processes		2'246.00		0.43	0.31	891.22	365.54	24.75	28.20	0.020	0.005	0.32	11.30	7.81	3.35
3. Solvent and Other Product Use		NO			0.39							0.04	0.09	104.40	0.04
4. Agriculture <sup>(3)</sup>		NO	NO	134.55	8.27							NO	NO	NO	NO
5. Land-Use Change and Forestry		<sup>(4)</sup> 0.00	<sup>(4)</sup> -4'226.00	NE	NE							NE	NE	NE	NE
6. Waste		1'407.00		62.60	0.32							5.27	3.30	1.17	2.30
7. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Memo Items:															
International Bunkers		4'520.00		NE	NE							NE	NE	NE	NE
Aviation		4'520.00		NE	NE							NE	NE	NE	NE
Marine		NO		NO	NO							NO	NO	NO	NO
Multilateral Operations		NO		NO	NO							NO	NO	NO	NO
CO <sub>2</sub> Emissions from Biomass		1'894.42													

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

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

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

<sup>(2)</sup> 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 I.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.

<sup>(3)</sup> See footnote 4 to Summary I.A.

<sup>(4)</sup> Please do not provide an estimate of both CO<sub>2</sub> emissions and CO<sub>2</sub> removals. "Net" emissions (emissions - removals) of CO<sub>2</sub> should be estimated and a single number placed in either the CO<sub>2</sub> emissions or CO<sub>2</sub> removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

**SUMMARY 2 SUMMARY REPORT FOR CO<sub>2</sub> EQUIVALENT EMISSIONS**  
(Sheet 1 of 1)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> <sup>(1)</sup>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	Total
	CO <sub>2</sub> equivalent (Gg )						
<b>Total (Net Emissions)<sup>(1)</sup></b>	<b>40'608.34</b>	<b>4'528.11</b>	<b>3'600.10</b>	<b>365.54</b>	<b>28.20</b>	<b>125.31</b>	<b>49'255.60</b>
<b>1. Energy</b>	<b>41'181.34</b>	<b>379.16</b>	<b>719.61</b>				<b>42'280.12</b>
A. Fuel Combustion (Sectoral Approach)	41'104.34	119.29	719.61				41'943.24
1. Energy Industries	1'125.93	1.42	1.03				1'128.38
2. Manufacturing Industries and Construction	5'499.13	8.33	12.61				5'520.07
3. Transport	15'315.63	48.57	647.51				16'011.71
4. Other Sectors	18'436.62	54.55	51.64				18'542.81
5. Other	727.04	6.41	6.82				740.27
B. Fugitive Emissions from Fuels	77.00	259.88	NO				336.88
1. Solid Fuels	NO	NO	NO				NO
2. Oil and Natural Gas	77.00	259.88	NE				336.88
<b>2. Industrial Processes</b>	<b>2'246.00</b>	<b>8.97</b>	<b>96.72</b>	<b>365.54</b>	<b>28.20</b>	<b>125.31</b>	<b>2'870.73</b>
A. Mineral Products	2'100.00	0.38	NO				2'100.38
B. Chemical Industry	13.00	8.23	96.72	NO	NO	NO	117.95
C. Metal Production	132.00	NE	NE		11.87	23.90	167.77
D. Other Production	NO						NO
E. Production of Halocarbons and SF <sub>6</sub>				NO	NO	NO	NO
F. Consumption of Halocarbons and SF <sub>6</sub>				365.54	16.33	101.41	483.27
G. Other	1.00	0.36	0.00	NO	NO	NO	1.36
<b>3. Solvent and Other Product Use</b>	<b>NO</b>		<b>120.90</b>				<b>120.90</b>
<b>4. Agriculture (no 3 years average !)</b>	<b>NO</b>	<b>2'825.49</b>	<b>2'562.74</b>				<b>5'388.22</b>
A. Enteric Fermentation		2'433.01					2'433.01
B. Manure Management		392.48	416.95				809.43
C. Rice Cultivation		NO					NO
D. Agricultural Soils <sup>(2)</sup>	NO	NO	2'145.79				2'145.79
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		NO	NO				NO
G. Other		NO	NO				NO
<b>5. Land-Use Change and Forestry<sup>(1)</sup></b>	<b>-4'226.00</b>	<b>NO</b>	<b>NO</b>				<b>-4'226.00</b>
<b>6. Waste</b>	<b>1'407.00</b>	<b>1'314.50</b>	<b>100.13</b>				<b>2'821.63</b>
A. Solid Waste Disposal on Land	134.00	1'278.48					1'412.48
B. Wastewater Handling		33.50	22.63				56.13
C. Waste Incineration	1'273.00	2.52	77.50				1'353.02
D. Other	NO	NO	NO				NO
<b>7. Other (please specify)</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
							0.00
<b>Memo Items:</b>							
<b>International Bunkers</b>	<b>4'520.00</b>	<b>NE</b>	<b>NE</b>				<b>4'520.00</b>
Aviation	4'520.00	NE	NE				4'520.00
Marine	NO	NO	NO				NO
<b>Multilateral Operations</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>				<b>NO</b>
<b>CO<sub>2</sub> Emissions from Biomass</b>	<b>1'894.42</b>						<b>1'894.42</b>

<sup>(1)</sup> For CO<sub>2</sub> 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 (+).

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

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> emissions	CO <sub>2</sub> removals	Net CO <sub>2</sub> emissions / removals	CH <sub>4</sub>	N <sub>2</sub> O	Total emissions
Land-Use Change and Forestry	CO <sub>2</sub> equivalent (Gg )					
A. Changes in Forest and Other Woody Biomass Stocks	0.00	-4'226.00	-4'226.00			-4'226.00
B. Forest and Grassland Conversion	NO		NO	NO	NO	NO
C. Abandonment of Managed Lands	IE	IE	IE			IE
D. CO <sub>2</sub> Emissions and Removals from Soil	NE	NE	NE			NE
E. Other	NO	NO	NO	NO	NO	NO
Total CO <sub>2</sub> Equivalent Emissions from Land-Use Change and Forestry	0.00	-4'226.00	-4'226.00	NO	NO	-4'226.00

Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(a)</sup>	53'481.60
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(a)</sup>	49'255.60

<sup>(a)</sup> 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)

Switzerland  
1999  
Submission 2001


GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		HFCs		PFCs		SF <sub>6</sub>	
	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>	Method applied <sup>(1)</sup>	Emission factor <sup>(2)</sup>
<b>1. Energy</b>												
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								
<b>2. Industrial Processes</b>												
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 <sub>6</sub>												
F. Consumption of Halocarbons and SF <sub>6</sub>							T2	M	T2	M	T2	M
G. Other	C	C	C	C	C	C						

<sup>(1)</sup> 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.

<sup>(2)</sup> 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)

Switzerland  
1999  
Submission 2001

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



**TABLE 7 OVERVIEW TABLE<sup>(1)</sup> FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)**  
(Sheet 1 of 3)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		HFCs		PFCs		SF <sub>6</sub>		NO <sub>x</sub>		CO		NMVOC		SO <sub>2</sub>	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
<b>Total National Emissions and Removals</b>		H		M		M								M		M		M		M
<b>1 Energy</b>	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
<b>2 Industrial Processes</b>	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 <sub>6</sub>																				

<sup>(1)</sup> 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)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		HFCs		PFCs		SF <sub>6</sub>		NO <sub>x</sub>		CO		NMVOC		SO <sub>2</sub>	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
<b>2 Industrial Processes (continued)</b>																				
F. Consumption of Halocarbons and SF <sub>6</sub>																				
Potential <sup>(2)</sup>							ALL	M	ALL	M	ALL	M								
Actual <sup>(3)</sup>							ALL	M	ALL	M	ALL	M								
G. Other	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
<b>3 Solvent and Other Product Use</b>	NO				ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
<b>4 Agriculture</b>			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		NE		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	
<b>5 Land-Use Change and Forestry</b>	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			

<sup>(2)</sup> Potential emissions based on Tier 1 approach of the IPCC Guidelines.

<sup>(3)</sup> 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  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		HFCs		PFCs		SF <sub>6</sub>		NO <sub>x</sub>		CO		NMVOC		SO <sub>2</sub>	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
<b>5 Land-Use Change and Forestry (continued)</b>																				
C. Abandonment of Managed Lands	IE																			
D. CO <sub>2</sub> Emissions and Removals from Soil	NE																			
E. Other	NO		NO		NO								NO		NO		NO		NO	
<b>6 Waste</b>	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	
<b>7 Other (please specify)</b>																				
<b>Memo Items:</b>																				
<b>International Bunkers</b>	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	
<b>Multilateral Operations</b>	NO		NO		NO								NO		NO		NO		NO	
<b>CO<sub>2</sub> Emissions from Biomass</b>	ALL	H																		

**TABLE 8(a) RECALCULATION - RECALCULATED DATA**

Recalculated

year:

1990

(Sheet 1 of 2)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>40'050.00</b>	<b>41'222.00</b>	<b>2.93</b>	<b>5'020.00</b>	<b>5'080.00</b>	<b>1.20</b>	<b>3'520.00</b>	<b>3'520.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>39'729.00</b>	<b>39'729.00</b>	<b>0.00</b>	<b>458.70</b>	<b>458.70</b>	<b>0.00</b>	<b>381.70</b>	<b>381.70</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	39'673.00	39'673.00	0.00	151.70	151.70	0.00	381.70	381.70	0.00
1.A.1.	Energy Industries	891.00	891.00	0.00	1.00	1.00	0.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	5'237.00	5'237.00	0.00	7.70	7.70	0.00	10.70	10.70	0.00
1.A.3.	Transport	14'144.00	14'144.00	0.00	82.00	82.00	0.00	305.00	305.00	0.00
1.A.4.	Other Sectors	18'631.00	18'631.00	0.00	53.00	53.00	0.00	55.00	55.00	0.00
1.A.5.	Other	770.00	770.00	0.00	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
<b>2. Industrial Processes</b>		<b>3'363.00</b>	<b>3'363.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>99.00</b>	<b>99.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>108.00</b>	<b>108.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'171.00</b>	<b>3'171.00</b>	<b>0.00</b>	<b>2'862.00</b>	<b>2'862.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			0.00			0.00	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						0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'360.00</b>	<b>-3'188.00</b>	<b>-26.88</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'360.00	-3'188.00	-26.88						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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		3'205.00	3'203.00	-0.06	NE	NE	0.00	NE	NE	0.00
Multilateral Operations		NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass				0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>										
				Previous submission			Latest submission			Difference <sup>(1)</sup>
				CO <sub>2</sub> equivalent (Gg)						(%)
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>				48'663			49'818			2.37
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				53'005			53'006			0.00
										without new gases
										without new gases

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>41'900.00</b>	<b>43'028.00</b>	<b>2.69</b>	<b>5'040.00</b>	<b>5'104.00</b>	<b>1.27</b>	<b>3'550.00</b>	<b>3'550.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>41'924.00</b>	<b>41'924.00</b>	<b>0.00</b>	<b>459.70</b>	<b>459.70</b>	<b>0.00</b>	<b>427.90</b>	<b>427.90</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	41'854.00	41'854.00	0.00	152.70	152.70	0.00	427.90	427.90	0.00
1.A.1.	Energy Industries	1'201.00	1'201.00	0.00	1.40	1.40	0.00	2.30	2.30	0.00
1.A.2.	Manufacturing Industries and Construction	5'410.00	5'410.00	0.00	8.30	8.30	0.00	11.60	11.60	0.00
1.A.3.	Transport	14'668.00	14'668.00	0.00	78.00	78.00	0.00	350.00	350.00	0.00
1.A.4.	Other Sectors	19'810.00	19'810.00	0.00	59.00	59.00	0.00	57.00	57.00	0.00
1.A.5.	Other	765.00	765.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>3'034.00</b>	<b>3'034.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>99.00</b>	<b>99.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>110.00</b>	<b>110.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'203.00</b>	<b>3'203.00</b>	<b>0.00</b>	<b>2'839.00</b>	<b>2'839.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			0.00	0.00	0.00	0.00	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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'404.00</b>	<b>-3'257.00</b>	<b>-26.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'404.00	-3'257.00	-26.04						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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			3'105.00	3'105.00	0.00	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>				
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>		
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00		
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00		
	Other			0.00			0.00			0.00		
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>												
				Previous submission		Latest submission		Difference <sup>(1)</sup>				
				CO <sub>2</sub> equivalent (Gg)				( <b>%)</b>				
				Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>				50'530		51'679		2.27
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				54'935		54'936		0.00
												without new gases
										without new gases		

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>41'560.00</b>	<b>42'636.00</b>	<b>2.59</b>	<b>4'990.00</b>	<b>5'050.00</b>	<b>1.20</b>	<b>3'570.00</b>	<b>3'570.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>41'917.00</b>	<b>41'917.00</b>	<b>0.00</b>	<b>440.00</b>	<b>440.00</b>	<b>0.00</b>	<b>475.00</b>	<b>475.00</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	41'846.00	41'846.00	0.00	143.00	143.00	0.00	475.00	475.00	0.00
1.A.1.	Energy Industries	1'280.00	1'280.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'994.00	4'994.00	0.00	8.00	8.00	0.00	10.00	10.00	0.00
1.A.3.	Transport	14'983.00	14'983.00	0.00	71.00	71.00	0.00	399.00	399.00	0.00
1.A.4.	Other Sectors	19'830.00	19'830.00	0.00	56.00	56.00	0.00	57.00	57.00	0.00
1.A.5.	Other	759.00	759.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'736.00</b>	<b>2'736.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>99.00</b>	<b>99.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>112.00</b>	<b>112.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'177.00</b>	<b>3'177.00</b>	<b>0.00</b>	<b>2'807.00</b>	<b>2'807.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			0.00	0.00	0.00	0.00	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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'430.00</b>	<b>-3'355.00</b>	<b>-24.27</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'430.00	-3'355.00	-24.27						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
CO <sub>2</sub> equivalent (Gg)			(%)	CO <sub>2</sub> equivalent (Gg)			(%)	CO <sub>2</sub> 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			3'300.00	3'303.00	0.09	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>										
				Previous submission		Latest submission		Difference <sup>(1)</sup>		
				CO <sub>2</sub> equivalent (Gg)				Difference <sup>(1)</sup>		
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>				50'080		51'253		2.34		without new gases
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				54'610		54'608		0.00		without new gases

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>38'400.00</b>	<b>39'240.00</b>	<b>2.19</b>	<b>4'940.00</b>	<b>5'004.00</b>	<b>1.30</b>	<b>3'580.00</b>	<b>3'580.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>39'682.00</b>	<b>39'682.00</b>	<b>0.00</b>	<b>426.00</b>	<b>426.00</b>	<b>0.00</b>	<b>506.00</b>	<b>506.00</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	39'611.00	39'611.00	0.00	137.00	137.00	0.00	506.00	506.00	0.00
1.A.1.	Energy Industries	962.00	962.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'862.00	4'862.00	0.00	9.00	9.00	0.00	10.00	10.00	0.00
1.A.3.	Transport	13'933.00	13'933.00	0.00	66.00	66.00	0.00	433.00	433.00	0.00
1.A.4.	Other Sectors	19'100.00	19'100.00	0.00	55.00	55.00	0.00	55.00	55.00	0.00
1.A.5.	Other	754.00	754.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'548.00</b>	<b>2'548.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>114.00</b>	<b>114.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'156.00</b>	<b>3'156.00</b>	<b>0.00</b>	<b>2'786.00</b>	<b>2'786.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			0.00	0.00	0.00	0.00	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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-5'160.00</b>	<b>-4'325.00</b>	<b>-16.18</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'160.00	-4'325.00	-16.18						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

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

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated  
(Sheet 2 of 2)

year:

1993

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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		3'440.00	3'438.00	-0.06	NE	NE	0.00	NE	NE	0.00
Multilateral Operations		NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass				0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>								
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>						
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00						
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00						
	Other			0.00			0.00			0.00						
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>																
		Previous submission			Latest submission			Difference <sup>(1)</sup>								
		CO <sub>2</sub> equivalent (Gg)						(%)								
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>					46'430			47'825			3.00			without new gases		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>					52'150			52'150			0.00			without new gases		

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>37'780.00</b>	<b>38'588.00</b>	<b>2.14</b>	<b>4'850.00</b>	<b>4'917.00</b>	<b>1.38</b>	<b>3'590.00</b>	<b>3'590.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>38'861.00</b>	<b>38'861.00</b>	<b>0.00</b>	<b>407.00</b>	<b>407.00</b>	<b>0.00</b>	<b>544.00</b>	<b>544.00</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	38'789.00	38'789.00	0.00	128.00	128.00	0.00	544.00	544.00	0.00
1.A.1.	Energy Industries	1'039.00	1'039.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'861.00	4'861.00	0.00	8.00	8.00	0.00	9.00	9.00	0.00
1.A.3.	Transport	14'117.00	14'117.00	0.00	61.00	61.00	0.00	474.00	474.00	0.00
1.A.4.	Other Sectors	18'023.00	18'023.00	0.00	52.00	52.00	0.00	53.00	53.00	0.00
1.A.5.	Other	749.00	749.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'731.00</b>	<b>2'731.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>117.00</b>	<b>117.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'094.00</b>	<b>3'094.00</b>	<b>0.00</b>	<b>2'751.00</b>	<b>2'751.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			0.00	0.00	0.00	0.00	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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-5'150.00</b>	<b>-4'340.00</b>	<b>-15.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'150.00	-4'340.00	-15.73						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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			3'550.00	3'548.00	-0.06	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF <sub>6</sub>		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>											
			Previous submission		Latest submission	Difference <sup>(1)</sup>					
			CO <sub>2</sub> equivalent (Gg)		(%)						
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>			45'680		47'097	3.10			without new gases		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			51'435		51'437	0.00			without new gases		

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>38'710.00</b>	<b>39'495.00</b>	<b>2.03</b>	<b>4'830.00</b>	<b>4'896.00</b>	<b>1.37</b>	<b>3'580.00</b>	<b>3'580.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>39'837.00</b>	<b>39'837.00</b>	<b>0.00</b>	<b>394.90</b>	<b>394.90</b>	<b>0.00</b>	<b>571.30</b>	<b>571.30</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	39'764.00	39'764.00	0.00	126.90	126.90	0.00	571.30	571.30	0.00
1.A.1.	Energy Industries	1'094.00	1'094.00	0.00	1.60	1.60	0.00	1.30	1.30	0.00
1.A.2.	Manufacturing Industries and Construction	5'098.00	5'098.00	0.00	7.30	7.30	0.00	8.00	8.00	0.00
1.A.3.	Transport	13'815.00	13'815.00	0.00	57.00	57.00	0.00	500.00	500.00	0.00
1.A.4.	Other Sectors	19'013.00	19'013.00	0.00	55.00	55.00	0.00	55.00	55.00	0.00
1.A.5.	Other	744.00	744.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'622.00</b>	<b>2'622.00</b>	<b>0.00</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>119.00</b>	<b>119.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'096.00</b>	<b>3'096.00</b>	<b>0.00</b>	<b>2'710.00</b>	<b>2'710.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-5'100.00</b>	<b>-4'310.00</b>	<b>-15.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'100.00	-4'310.00	-15.49						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

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

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:

1995

(Sheet 2 of 2)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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			3'770.00	3'770.00	0.00	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF <sub>6</sub>		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>											
			Previous submission		Latest submission	Difference <sup>(1)</sup>					
			CO <sub>2</sub> equivalent (Gg)		(%)						
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>			46'555		47'975	3.05			without new gases		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			52'285		52'285	0.00			without new gases		

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>38'970.00</b>	<b>39'753.00</b>	<b>2.01</b>	<b>4'770.00</b>	<b>4'830.00</b>	<b>1.26</b>	<b>3'580.00</b>	<b>3'580.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>40'627.00</b>	<b>40'627.00</b>	<b>0.00</b>	<b>392.50</b>	<b>392.50</b>	<b>0.00</b>	<b>595.50</b>	<b>595.50</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	40'554.00	40'554.00	0.00	126.50	126.50	0.00	595.50	595.50	0.00
1.A.1.	Energy Industries	1'267.00	1'267.00	0.00	1.50	1.50	0.00	1.50	1.50	0.00
1.A.2.	Manufacturing Industries and Construction	4'853.00	4'853.00	0.00	8.00	8.00	0.00	8.00	8.00	0.00
1.A.3.	Transport	13'885.00	13'885.00	0.00	53.00	53.00	0.00	522.00	522.00	0.00
1.A.4.	Other Sectors	19'810.00	19'810.00	0.00	58.00	58.00	0.00	57.00	57.00	0.00
1.A.5.	Other	739.00	739.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'220.00</b>	<b>2'220.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>119.00</b>	<b>119.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'052.00</b>	<b>3'052.00</b>	<b>0.00</b>	<b>2'681.00</b>	<b>2'681.00</b>	<b>0.00</b>
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 <sup>(2)</sup>			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				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-5'240.00</b>	<b>-4'460.00</b>	<b>-14.89</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'240.00	-4'460.00	-14.89						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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			3'900.00	3'900.00	0.00	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass					0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			HFCs			PFCs			SF <sub>6</sub>		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>				0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>				0.00			0.00			0.00
	Other				0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>											
			Previous submission		Latest submission	Difference <sup>(1)</sup>					
			CO <sub>2</sub> equivalent (Gg)		(%)						
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>			46'700		48'165	3.14			without new gases		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			52'625		52'625	0.00			without new gases		

<sup>(3)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>38'190.00</b>	<b>38'914.00</b>	<b>1.90</b>	<b>4'686.00</b>	<b>4'762.00</b>	<b>1.62</b>	<b>3'553.00</b>	<b>3'553.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>39'967.00</b>	<b>39'967.00</b>	<b>0.00</b>	<b>383.50</b>	<b>383.50</b>	<b>0.00</b>	<b>607.20</b>	<b>607.20</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	39'894.00	39'894.00	0.00	119.50	119.50	0.00	607.20	607.20	0.00
1.A.1.	Energy Industries	1'176.00	1'176.00	0.00	1.50	1.50	0.00	1.20	1.20	0.00
1.A.2.	Manufacturing Industries and Construction	4'736.00	4'736.00	0.00	8.00	8.00	0.00	8.00	8.00	0.00
1.A.3.	Transport	14'462.00	14'462.00	0.00	50.00	50.00	0.00	539.00	539.00	0.00
1.A.4.	Other Sectors	18'785.00	18'785.00	0.00	54.00	54.00	0.00	52.00	52.00	0.00
1.A.5.	Other	735.00	735.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
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
<b>2. Industrial Processes</b>		<b>2'207.00</b>	<b>2'207.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
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
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>120.00</b>	<b>120.00</b>	<b>0.00</b>
<b>4. Agriculture (3 year averages)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'015.00</b>	<b>3'015.00</b>	<b>0.00</b>	<b>2'639.00</b>	<b>2'639.00</b>	<b>0.00</b>
4.A.	Enteric Fermentation				2'606.00	2'606.00	0.00			
4.B.	Manure Management				409.00	409.00	0.00	427.00	427.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'212.00	2'212.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				0.00	0.00	0.00	0.00	0.00	0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-5'360.00</b>	<b>-4'636.00</b>	<b>-13.51</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-5'360.00	-4'636.00	-13.51						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

<sup>(2)</sup> 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

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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		4'050.00	4'050.00	0.00	NE	NE	0.00	NE	NE	0.00
Multilateral Operations		NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass (only fuel combustion)		1'990.00	1'990.00	0.00						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>										
				Previous submission			Latest submission			Difference <sup>(1)</sup>
				CO <sub>2</sub> equivalent (Gg)						(%)
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>				45'700			47'232			3.35
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				51'870			51'868			0.00
										without new gases
										without new gases

<sup>(3)</sup> 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:

1998

(Sheet 1 of 2)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
<b>Total National Emissions and Removals</b>		<b>38'700.00</b>	<b>40'244.00</b>	<b>3.99</b>	<b>4'610.00</b>	<b>4'660.00</b>	<b>1.08</b>	<b>3'622.00</b>	<b>3'622.00</b>	<b>0.00</b>
<b>1. Energy</b>		<b>41'211.00</b>	<b>41'216.00</b>	<b>0.01</b>	<b>386.00</b>	<b>386.00</b>	<b>0.00</b>	<b>698.00</b>	<b>698.00</b>	<b>0.00</b>
1.A.	Fuel Combustion Activities	41'138.00	41'140.00	0.00	124.00	124.00	0.00	698.00	698.00	0.00
1.A.1.	Energy Industries	1'423.00	1'423.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'893.00	4'893.00	0.00	9.00	9.00	0.00	10.00	10.00	0.00
1.A.3.	Transport	14'690.00	14'691.00	0.01	52.00	52.00	0.00	623.00	623.00	0.00
1.A.4.	Other Sectors	19'401.00	19'402.00	0.01	55.00	55.00	0.00	56.00	56.00	0.00
1.A.5.	Other	731.00	731.00	0.00	6.00	6.00	0.00	7.00	7.00	0.00
1.B.	Fugitive Emissions from Fuels	73.00	76.00	4.11	262.00	262.00	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	76.00	4.11	262.00	262.00	0.00			0.00
<b>2. Industrial Processes</b>		<b>2'204.00</b>	<b>2'204.00</b>	<b>0.00</b>	<b>9.00</b>	<b>9.00</b>	<b>0.00</b>	<b>97.00</b>	<b>97.00</b>	<b>0.00</b>
2.A.	Mineral Products	2'071.00	2'071.00	0.00	0.00	0.00	0.00			0.00
2.B.	Chemical Industry	13.00	13.00	0.00	8.00	8.00	0.00	97.00	97.00	0.00
2.C.	Metal Production	119.00	119.00	0.00			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other	1.00	1.00	0.00			0.00			0.00
<b>3. Solvent and Other Product Use</b>				<b>0.00</b>						<b>0.00</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2'930.00</b>	<b>2'930.00</b>	<b>0.00</b>	<b>2'612.00</b>	<b>2'612.00</b>	<b>0.00</b>
4.A.	Enteric Fermentation				2'529.00	2'529.00	0.00			
4.B.	Manure Management				401.00	401.00	0.00	426.00	426.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'186.00	2'186.00	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues				0.00	0.00	0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-6'109.00</b>	<b>-4'570.00</b>	<b>-25.19</b>			<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-6'109.00	-4'570.00	-25.19						
5.B.	Forest and Grassland Conversion			0.00			0.00			0.00
5.C.	Abandonment of Managed Lands			0.00						
5.D.	CO <sub>2</sub> Emissions and Removals from Soil			0.00						
5.E.	Other			0.00			0.00			0.00

<sup>(1)</sup> 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.

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

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated

year:


1998

(Sheet 2 of 2)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		
			Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
			CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)
6. Waste			1'394.00	1'394.00	0.00	1'336.00	1'336.00	0.00	97.00	97.00	0.00
6.A.	Solid Waste Disposal on Land		134.00	134.00	0.00	1'300.00	1'300.00	0.00			
6.B.	Wastewater Handling					33.00	33.00	0.00	22.00	22.00	0.00
6.C.	Waste Incineration		1'260.00	1'260.00	0.00	3.00	3.00	0.00	75.00	75.00	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			4'230.00	4'230.00	0.00	NE	NE	0.00	NE	NE	0.00
Multilateral Operations			NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass			1'926.00	1'926.00	0.00						


GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF <sub>6</sub>		
		Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>	Previous submission	Latest submission	Difference <sup>(1)</sup>
		CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> equivalent (Gg)		(%)	CO <sub>2</sub> 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 <sub>6</sub>			0.00			0.00			0.00
2.F.	Consumption of Halocarbons and SF <sub>6</sub>			0.00			0.00			0.00
	Other			0.00			0.00			0.00
Potential Emissions from Consumption of HFCs/PFCs and SF <sub>6</sub>										

			Previous submission	Latest submission	Difference <sup>(1)</sup>	
			CO <sub>2</sub> equivalent (Gg)		(%)	
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>			46'982.00		48'526.00	3.29 without new gases
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			53'091.00		53'096.00	0.01 without new gases

<sup>(3)</sup> 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  
1999  
Submission 2001

Specify the sector and source/sink category <sup>(1)</sup> where changes in estimates have occurred:	GHG	RECALCULATION DUE TO			
		CHANGES IN:			Addition/removal/ replacement of source/sink categories
		Methods <sup>(2)</sup>	Emission factors <sup>(2)</sup>	Activity data <sup>(2)</sup>	
 5. Land-use change and forestry	CO2, 1990-1998		new carbon emission factors	see documentation box	

<sup>(1)</sup> 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)) .

<sup>(2)</sup> 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.

<b>Documentation box:</b> Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.
5. Land Use Change and Forestry: The data of the updated Swiss National Forest Inventory (NFI) is now fully available. The data of this 2 <sup>nd</sup> NFI were checked and some inconsistencies between the survey methods used in NFI 1 and NFI 2 were found. Growth rates of forests on abandoned land were corrected. Implementation back to 1990.

**TABLE 9 COMPLETENESS**  
(Sheet 1 of 2)

Switzerland  
1999  
Submission 2001

Sources and sinks not reported (NE) <sup>(1)</sup>				
GHG	Sector <sup>(2)</sup>	Source/sink category <sup>(2)</sup>	Explanation	
CO <sub>2</sub>	LUCF	5.D.	no data available.	
CH <sub>4</sub>	International Aviation Bunkers		see documentation box table 1.C.	
N <sub>2</sub> O	International Aviation Bunkers		see documentation box table 1.C.	
HFCs				
PFCs				
SF <sub>6</sub>				
Sources and sinks reported elsewhere (IE) <sup>(3)</sup>				
GHG	Source/sink category	Allocation as per IPCC Guidelines	Allocation used by the Party	Explanation
CO <sub>2</sub>	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 <sub>4</sub>	Waste Incineration (Energy producing part)	1.A.1. Energy Industries	6. Waste	The main purpose of waste incineration is eliminating the waste
N <sub>2</sub> 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 <sub>6</sub>				


<sup>(1)</sup> 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.

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

<sup>(3)</sup> 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  
1999  
Submission 2001

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

<sup>(4)</sup> 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 (CO<sub>2</sub>)**  
(Sheet 1 of 5)

Switzerland  
1999  
Submission 2001

	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</b>	<b>(Gg)</b>										
<b>1. Energy</b>	<b>0</b>	<b>39'729</b>	<b>41'924</b>	<b>41'917</b>	<b>39'682</b>	<b>38'861</b>	<b>39'837</b>	<b>40'627</b>	<b>39'967</b>	<b>41'216</b>	<b>41'181</b>
A. Fuel Combustion (Sectoral Approach)	0	39'673	41'854	41'846	39'611	38'789	39'764	40'554	39'894	41'140	41'104
1. Energy Industries		891	1'201	1'280	962	1'039	1'094	1'267	1'176	1'423	1'126
2. Manufacturing Industries and Construction		5'237	5'410	4'994	4'862	4'861	5'098	4'853	4'736	4'893	5'499
3. Transport		14'144	14'668	14'983	13'933	14'117	13'815	13'885	14'462	14'691	15'315
4. Other Sectors		18'631	19'810	19'830	19'100	18'023	19'013	19'810	18'785	19'402	18'437
5. Other		770	765	759	754	749	744	739	735	731	727
B. Fugitive Emissions from Fuels	0	56	70	71	71	72	73	73	73	76	77
1. Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and Natural Gas		56	70	71	71	72	73	73	73	76	77
<b>2. Industrial Processes</b>	<b>0</b>	<b>3'363</b>	<b>3'034</b>	<b>2'736</b>	<b>2'548</b>	<b>2'731</b>	<b>2'622</b>	<b>2'220</b>	<b>2'207</b>	<b>2'204</b>	<b>2'238</b>
A. Mineral Products		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
B. Chemical Industry		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
C. Metal Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Production of Halocarbons and SF <sub>6</sub>											
F. Consumption of Halocarbons and SF <sub>6</sub>											
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>		<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>4. Agriculture</b>	<b>0</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
A. Enteric Fermentation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Manure Management		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Rice Cultivation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural Soils <sup>(2)</sup>		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed Burning of Savannas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry <sup>(3)</sup> (3 years average)</b>	<b>0</b>	<b>-3'188</b>	<b>-3'257</b>	<b>-3'355</b>	<b>-4'325</b>	<b>-4'340</b>	<b>-4'310</b>	<b>-4'460</b>	<b>-4'636</b>	<b>-4'570</b>	<b>-4'226</b>
A. Changes in Forest and Other Woody Biomass Stocks		-3'188	-3'257	-3'355	-4'325	-4'340	-4'310	-4'460	-4'636	-4'570	-4'226
B. Forest and Grassland Conversion		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
C. Abandonment of Managed Lands		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. CO <sub>2</sub> Emissions and Removals from Soil		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Waste</b>	<b>0</b>	<b>1'317</b>	<b>1'327</b>	<b>1'337</b>	<b>1'336</b>	<b>1'336</b>	<b>1'346</b>	<b>1'365</b>	<b>1'375</b>	<b>1'394</b>	<b>1'407</b>
A. Solid Waste Disposal on Land		137	137	137	136	136	136	135	135	134	134
B. Waste-water Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Waste Incineration		1'180	1'190	1'200	1'200	1'200	1'210	1'230	1'240	1'260	1'273
D. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (please specify)</b>	<b>0</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>Total Emissions/Removals with LUCF <sup>(4)</sup></b>	<b>0</b>	<b>41'221</b>	<b>43'028</b>	<b>42'635</b>	<b>39'241</b>	<b>38'588</b>	<b>39'495</b>	<b>39'752</b>	<b>38'913</b>	<b>40'244</b>	<b>40'600</b>
<b>Total Emissions without LUCF <sup>(4)</sup></b>	<b>0</b>	<b>44'409</b>	<b>46'285</b>	<b>45'990</b>	<b>43'566</b>	<b>42'928</b>	<b>43'805</b>	<b>44'212</b>	<b>43'549</b>	<b>44'814</b>	<b>44'826</b>
<b>Memo Items:</b>											
<b>International Bunkers</b>	<b>0</b>	<b>3'200</b>	<b>3'100</b>	<b>3'300</b>	<b>3'440</b>	<b>3'550</b>	<b>3'770</b>	<b>3'900</b>	<b>4'050</b>	<b>4'230</b>	<b>4'520</b>
Aviation		3'200	3'100	3'300	3'440	3'550	3'770	3'900	4'050	4'230	4'520
Marine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>	<b>0</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>CO<sub>2</sub> Emissions from Biomass</b>		<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1'880</b>	<b>1'930</b>	<b>1'890</b>

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

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

<sup>(3)</sup> 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 (+).

<sup>(4)</sup> The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO<sub>2</sub> emissions and removals from Land-Use Change and Forestry.

**TABLE 10 EMISSIONS TRENDS (CH<sub>4</sub>)**  
(Sheet 2 of 5)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
<b>Total Emissions</b>	<b>0.00</b>	<b>241.90</b>	<b>242.86</b>	<b>240.46</b>	<b>238.31</b>	<b>234.14</b>	<b>233.16</b>	<b>229.99</b>	<b>226.77</b>	<b>221.92</b>	<b>217.49</b>
<b>1. Energy</b>	<b>0.00</b>	<b>21.87</b>	<b>21.69</b>	<b>20.95</b>	<b>20.28</b>	<b>19.45</b>	<b>18.82</b>	<b>18.71</b>	<b>18.26</b>	<b>18.37</b>	<b>18.06</b>
A. Fuel Combustion (Sectoral Approach)	0.00	7.23	7.23	6.79	6.51	6.18	6.04	6.03	5.68	5.90	5.68
1. Energy Industries		0.05	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.08	0.07
2. Manufacturing Industries and Construction		0.25	0.27	0.26	0.27	0.27	0.29	0.35	0.37	0.43	0.40
3. Transport		3.92	3.69	3.39	3.12	2.93	2.72	2.53	2.36	2.46	2.31
4. Other Sectors		2.65	2.91	2.77	2.76	2.61	2.66	2.78	2.58	2.62	2.60
5. Other		0.37	0.29	0.30	0.30	0.30	0.29	0.29	0.31	0.31	0.31
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	12.38
1. Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and Natural Gas		14.64	14.46	14.16	13.77	13.27	12.78	12.68	12.58	12.48	12.38
<b>2. Industrial Processes</b>	<b>0.00</b>	<b>0.43</b>	<b>0.43</b>	<b>0.42</b>	<b>0.41</b>	<b>0.41</b>	<b>0.40</b>	<b>0.41</b>	<b>0.41</b>	<b>0.42</b>	<b>0.43</b>
A. Mineral Products		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
B. Chemical Industry		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
C. Metal Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Production of Halocarbons and SF <sub>6</sub>											
F. Consumption of Halocarbons and SF <sub>6</sub>											
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>		<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>4. Agriculture (3 years average)</b>	<b>0.00</b>	<b>150.99</b>	<b>152.52</b>	<b>151.28</b>	<b>150.29</b>	<b>147.35</b>	<b>147.41</b>	<b>145.35</b>	<b>143.58</b>	<b>139.50</b>	<b>136.41</b>
A. Enteric Fermentation		130.20	131.68	130.67	129.85	127.34	127.66	126.00	124.08	120.40	117.55
B. Manure Management		20.79	20.84	20.61	20.44	20.01	19.75	19.35	19.50	19.10	18.86
C. Rice Cultivation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural Soils		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Prescribed Burning of Savannas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry (3 years average)</b>	<b>0.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
A. Changes in Forest and Other Woody Biomass Stocks		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Forest and Grassland Conversion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Abandonment of Managed Lands		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. CO <sub>2</sub> Emissions and Removals from Soil		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Waste</b>	<b>0.00</b>	<b>68.61</b>	<b>68.22</b>	<b>67.82</b>	<b>67.32</b>	<b>66.93</b>	<b>66.53</b>	<b>65.53</b>	<b>64.53</b>	<b>63.62</b>	<b>62.60</b>
A. Solid Waste Disposal on Land		66.90	66.50	66.10	65.60	65.20	64.80	63.80	62.80	61.90	60.88
B. Waste-water Handling		1.35	1.38	1.40	1.43	1.46	1.48	1.51	1.54	1.57	1.60
C. Waste Incineration		0.36	0.34	0.32	0.29	0.27	0.25	0.22	0.19	0.15	0.12
D. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (please specify)</b>	<b>0.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>Memo Items:</b>											
<b>International Bunkers</b>	<b>0.00</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
Aviation		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Marine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>	<b>0</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>CO<sub>2</sub> Emissions from Biomass</b>											

**TABLE 10 EMISSIONS TRENDS (N<sub>2</sub>O)**  
(Sheet 3 of 5)

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
<b>Total Emissions</b>	<b>0.00</b>	<b>11.34</b>	<b>11.44</b>	<b>11.51</b>	<b>11.55</b>	<b>11.59</b>	<b>11.56</b>	<b>11.56</b>	<b>11.47</b>	<b>11.69</b>	<b>11.66</b>
<b>1. Energy</b>	<b>0.00</b>	<b>1.23</b>	<b>1.38</b>	<b>1.53</b>	<b>1.63</b>	<b>1.76</b>	<b>1.84</b>	<b>1.92</b>	<b>1.96</b>	<b>2.26</b>	<b>2.32</b>
A. Fuel Combustion (Sectoral Approach)	0.00	1.23	1.38	1.53	1.63	1.76	1.84	1.92	1.96	2.26	2.32
1. Energy Industries		0.005	0.007	0.007	0.003	0.004	0.004	0.005	0.004	0.006	0.003
2. Manufacturing Industries and Construction		0.027	0.029	0.024	0.022	0.022	0.022	0.027	0.027	0.032	0.040
3. Transport		0.983	1.130	1.286	1.396	1.530	1.614	1.684	1.739	2.009	2.086
4. Other Sectors		0.184	0.193	0.193	0.188	0.178	0.181	0.184	0.166	0.181	0.168
5. Other		0.029	0.023	0.022	0.022	0.022	0.021	0.021	0.022	0.027	0.022
B. Fugitive Emissions from Fuels	0.00	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1. Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and Natural Gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>2. Industrial Processes</b>	<b>0.00</b>	<b>0.318</b>	<b>0.318</b>	<b>0.318</b>	<b>0.312</b>	<b>0.312</b>	<b>0.312</b>	<b>0.312</b>	<b>0.312</b>	<b>0.312</b>	<b>0.312</b>
A. Mineral Products		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
B. Chemical Industry		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
C. Metal Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. Other Production		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
E. Production of Halocarbons and SF <sub>6</sub>											
F. Consumption of Halocarbons and SF <sub>6</sub>											
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>3. Solvent and Other Product Use</b>		<b>0.347</b>	<b>0.354</b>	<b>0.361</b>	<b>0.369</b>	<b>0.376</b>	<b>0.383</b>	<b>0.384</b>	<b>0.386</b>	<b>0.388</b>	<b>0.390</b>
<b>4. Agriculture (3 years average)</b>	<b>0.00</b>	<b>9.23</b>	<b>9.16</b>	<b>9.06</b>	<b>8.99</b>	<b>8.88</b>	<b>8.74</b>	<b>8.65</b>	<b>8.51</b>	<b>8.42</b>	<b>8.32</b>
A. Enteric Fermentation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Manure Management		1.476	1.458	1.436	1.427	1.410	1.394	1.383	1.376	1.373	1.363
C. Rice Cultivation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural Soils		7.755	7.701	7.619	7.559	7.465	7.349	7.265	7.136	7.050	6.954
E. Prescribed Burning of Savannas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry (3 years average)</b>	<b>0.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
A. Changes in Forest and Other Woody Biomass Stocks		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Forest and Grassland Conversion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Abandonment of Managed Lands		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. CO <sub>2</sub> Emissions and Removals from Soil		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
E. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Waste</b>	<b>0.00</b>	<b>0.22</b>	<b>0.23</b>	<b>0.24</b>	<b>0.25</b>	<b>0.27</b>	<b>0.28</b>	<b>0.29</b>	<b>0.30</b>	<b>0.31</b>	<b>0.32</b>
A. Solid Waste Disposal on Land		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Waste-water Handling		0.062	0.063	0.064	0.065	0.066	0.067	0.069	0.070	0.071	0.073
C. Waste Incineration		0.157	0.168	0.179	0.188	0.201	0.213	0.222	0.231	0.241	0.250
D. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>7. Other (please specify)</b>	<b>0.00</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>Memo Items:</b>											
<b>International Bunkers</b>	<b>0.00</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
Aviation		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Marine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>	<b>0</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>CO<sub>2</sub> Emissions from Biomass</b>											

**TABLE 10 EMISSION TRENDS ( HFCs, PFCs and SF<sub>6</sub>)**  
(Sheet 4 of 5)

Switzerland

1999

Submission 2001

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
<b>Emissions of HFCs<sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>355.00</b>	<b>468.38</b>	<b>365.54</b>
HFC-23									IE	0.0001	0.0000
HFC-32									IE	0.0005	0.0028
HFC-41									IE	0.0000	0.0000
HFC-43-10mee									IE	0.0806	0.0000
HFC-125									IE	0.0114	0.0182
HFC-134									IE	0.0000	0.0000
HFC-134a									IE	0.2228	0.1871
HFC-152a									IE	0.0643	0.0056
HFC-143									IE	0.0000	0.0000
HFC-143a									IE	0.0083	0.0175
HFC-227ea									IE	0.0000	0.0008
HFC-236fa									IE	0.0000	0.0000
HFC-245ca									IE	0.0000	0.0000
<b>Emissions of PFCs<sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>60.70</b>	<b>70.27</b>	<b>28.20</b>
CF <sub>4</sub>									IE	0.0075	0.0020
C <sub>2</sub> F <sub>6</sub>									IE	0.0012	0.0014
C <sub>3</sub> F <sub>8</sub>									IE	0.0011	0.0003
C <sub>4</sub> F <sub>10</sub>									IE	0.0001	0.0000
c-C <sub>4</sub> F <sub>8</sub>									IE	0.0001	0.0000
C <sub>5</sub> F <sub>12</sub>									IE	0.0001	0.0000
C <sub>6</sub> F <sub>14</sub>									IE	0.0001	0.0000
<b>Emissions of SF<sub>6</sub><sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>172.08</b>	<b>152.96</b>	<b>125.30</b>
SF <sub>6</sub>									0.0072	0.0064	0.0052

<sup>(5)</sup> 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 CO<sub>2</sub> equivalent emissions in order to facilitate data flow among spreadsheets.

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

Switzerland  
1999  
Submission 2001

GREENHOUSE GAS EMISSIONS	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO <sub>2</sub> equivalent (Gg)										
Net CO <sub>2</sub> emissions/removals	0	41'221	43'028	42'635	39'241	38'588	39'495	39'752	38'913	40'244	40'600
CO <sub>2</sub> emissions (without LUCF) <sup>(6)</sup>	0	44'409	46'285	45'990	43'566	42'928	43'805	44'212	43'549	44'814	44'826
CH <sub>4</sub>	0	5'080	5'100	5'050	5'004	4'917	4'896	4'830	4'762	4'660	4'567
N <sub>2</sub> O	0	3'516	3'548	3'568	3'581	3'592	3'584	3'582	3'555	3'624	3'615
HFCs	0	NE	NE	NE	NE	NE	NE	NE	355	468	366
PFCs	0	NE	NE	NE	NE	NE	NE	NE	61	70	28
SF <sub>6</sub>	0	NE	NE	NE	NE	NE	NE	NE	172	153	125
<b>Total (with net CO<sub>2</sub> emissions/removals)</b>	<b>0</b>	<b>49'817</b>	<b>51'676</b>	<b>51'252</b>	<b>47'826</b>	<b>47'097</b>	<b>47'975</b>	<b>48'164</b>	<b>47'818</b>	<b>49'220</b>	<b>49'301</b>
<b>Total (without CO<sub>2</sub> from LUCF)<sup>(6)</sup></b>	<b>0</b>	<b>53'005</b>	<b>54'933</b>	<b>54'607</b>	<b>52'151</b>	<b>51'437</b>	<b>52'285</b>	<b>52'624</b>	<b>52'454</b>	<b>53'790</b>	<b>53'527</b>

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO <sub>2</sub> equivalent (Gg)										
1. Energy	0	40'569	42'808	42'832	40'614	39'814	40'803	41'615	40'957	42'301	42'279
2. Industrial Processes	0	3'471	3'142	2'843	2'653	2'836	2'727	2'325	2'900	3'001	2'863
3. Solvent and Other Product Use	0	108	110	112	114	117	119	119	120	120	121
4. Agriculture (3 years average)	0	6'032	6'042	5'984	5'942	5'846	5'806	5'733	5'654	5'541	5'443
5. Land-Use Change and Forestry <sup>(7)</sup> (3 years average)	0	-3'188	-3'257	-3'355	-4'325	-4'340	-4'310	-4'460	-4'636	-4'570	-4'226
6. Waste	0	2'826	2'831	2'836	2'828	2'824	2'830	2'831	2'823	2'827	2'822
7. Other	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

<sup>(6)</sup> The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO<sub>2</sub> emissions and removals from Land-Use Change and Forestry.

<sup>(7)</sup> Net emissions.

<b>Documentation Box:</b>
HFCs, PFCs, SF <sub>6</sub> : no consistent time series. Preliminary data for 1997 and 1998.
Agriculture values are 3 year averages; for 1999 in tables 4.A-D instead there are one year values ! That is the reason for the small differences in total CO <sub>2</sub> equivalent emissions for 1999 in table "Summary 2" . and "10s5".

**TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION<sup>(1)</sup>**

<b>Party:</b> Switzerland		<b>Year:</b> 1999					
<b>Contact info:</b>	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)					
<b>General info:</b>	Date of submission:	15.04.01					
	Base years:	1990	PFCs, HFCs, SF <sub>6</sub> : not yet defined				
	Year covered in the submission:	1999					
	Gases covered:	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, PFC, HFC, SF <sub>6</sub> , NO <sub>x</sub> , CO, NMVOC, SO <sub>2</sub>					
	Omissions in geographic coverage:	none					
<b>Tables:</b>		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 <sub>2</sub> 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"/>			
<b>CO<sub>2</sub></b>	Comparison of CO <sub>2</sub> from fuel combustion:	Worksheet 1-1		Percentage of difference		Explanation of differences	
		<input checked="" type="checkbox"/>		0.37		<input checked="" type="checkbox"/>	
<b>Recalculation:</b>		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
	CO <sub>2</sub>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CH <sub>4</sub>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	N <sub>2</sub> O	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	HFCs, PFCs, SF <sub>6</sub>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explanations:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recalculation tables for all recalculated years:			<input checked="" type="checkbox"/>	1990-1998		
Full CRF for the recalculated base year:			<input type="checkbox"/>	will be submitted with the 2002 submission.			
<b>HFCs, PFCs, SF<sub>6</sub>:</b>		HFCs		PFCs		SF <sub>6</sub>	
	Disaggregation by species:	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
	Production of Halocarbons/SF <sub>6</sub> :	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
	Consumption of Halocarbons/SF <sub>6</sub> :	Actual	Potential	Actual	Potential	Actual	Potential
	Potential/Actual emission ratio:	2.44		1.52		4.72	
Reference to National Inventory Report and/or national inventory web site:		<a href="http://www.buwal.ch/e/themen/umwelt/klima/index.htm">http://www.buwal.ch/e/themen/umwelt/klima/index.htm</a>					

CRF - Common Reporting Format.  
LUCF - Land-Use Change and Forestry.

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