



Country	Switzerland
Inventory Year	2000
Title of Inventory	SWISS GREENHOUSE GAS INVENTORY 2000
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Title	
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


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

Switzerland  
2000  
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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>40'087.64</b>	<b>17.75</b>	<b>2.29</b>	<b>89.98</b>	<b>378.62</b>	<b>48.81</b>	<b>12.48</b>
<b>A. Fuel Combustion Activities (Sectoral Approach)</b>	<b>40'014.04</b>	<b>5.48</b>	<b>2.29</b>	<b>89.94</b>	<b>378.62</b>	<b>42.26</b>	<b>12.48</b>
<b>1. Energy Industries</b>	<b>983.83</b>	<b>0.06</b>	<b>0.003</b>	<b>0.981</b>	<b>0.279</b>	<b>0.036</b>	<b>1.182</b>
a. Public Electricity and Heat Production	350.92	0.04	0.001	0.319	0.128	0.013	0.022
b. Petroleum Refining	632.91	0.02	0.002	0.662	0.151	0.024	1.160
c. Manufacture of Solid Fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO
<b>2. Manufacturing Industries and Construction</b>	<b>5'576.83</b>	<b>0.397</b>	<b>0.040</b>	<b>9.49</b>	<b>16.77</b>	<b>0.46</b>	<b>3.54</b>
a. Iron and Steel	82.41	0.005	0.00076	0.13	1.85	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 ( <i>please specify</i> ) 	5'494.42	0.392	0.0390	9.35	14.92	0.45	3.32
<b>3. Transport</b>	<b>15'563.37</b>	<b>2.129</b>	<b>2.063</b>	<b>52.95</b>	<b>226.53</b>	<b>27.08</b>	<b>1.69</b>
a. Civil Aviation	236.73	0.058	0.008	0.38	3.66	0.35	0.07
b. Road Transportation	15'228.90	2.003	2.053	51.42	220.08	25.88	1.60
c. Railways	27.67	0.001	0.001	0.485	0.109	0.047	0.009
d. Navigation	70.07	0.067	0.002	0.669	2.680	0.800	0.007
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  
2000  
Submission 2002

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>17'167.41</b>	<b>2.53</b>	<b>0.16</b>	<b>17.79</b>	<b>81.90</b>	<b>7.11</b>	<b>5.88</b>
a. Commercial/Institutional	5'562.21	0.84	0.04	3.82	13.40	0.52	1.79
b. Residential	10'922.92	1.43	0.09	6.12	25.45	1.04	3.86
c. Agriculture/Forestry/Fisheries	682.28	0.26	0.02	7.85	43.05	5.55	0.23
<b>5. Other (please specify) <sup>(1)</sup></b>	<b>722.60</b>	<b>0.37</b>	<b>0.027</b>	<b>8.73</b>	<b>53.14</b>	<b>7.57</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>73.60</b>	<b>12.27</b>	<b>0.00</b>	<b>0.04</b>	<b>0.001</b>	<b>6.55</b>	<b>NO</b>
<b>1. Solid Fuels</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
a. Coal Mining	NO	NO	NO	NO	NO	NO	NO
b. Solid Fuel Transformation	NO	NO	NO	NO	NO	NO	NO
c. Other (please specify) 	NO	NO	NO	NO	NO	NO	NO
<b>2. Oil and Natural Gas</b>	<b>73.60</b>	<b>12.27</b>	<b>NE</b>	<b>0.04</b>	<b>0.001</b>	<b>6.55</b>	<b>NO</b>
a. Oil	NO	0.23		NO	NO	5.25	NO
b. Natural Gas	35.00	12.00		0.039	0.001	1.21	NE
c. Venting and Flaring	38.60	0.05	NE	NE	NE	0.09	NE
Venting	IE	IE				IE	IE
Flaring	38.60	0.05	NE	NE	NE	0.09	NE
d. Other (please specify) 	NO	NO	NO	NO	NO	NO	NO
<b>Memo Items: <sup>(2)</sup></b>							
<b>International Bunkers</b>	<b>4'743.00</b>	<b>0.23</b>	<b>0.15</b>	<b>9.24</b>	<b>4.16</b>	<b>0.21</b>	<b>0.16</b>
Aviation	4'743.00	0.23	0.15	9.24	4.16	0.21	0.16
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>1'871.30</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  
2000  
Submission 2002

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>587'555.44</b>	NCV				<b>40'014.04</b>	<b>5.482</b>	<b>2.28975</b>
Liquid Fuels	403'869.44	NCV	73.78	5.07	4.69	29'798.57	2.048	1.89267
Solid Fuels	1'069.00	NCV	94.00	68.90	1.60	100.49	0.074	0.00171
Gaseous Fuels	98'214.00	NCV	55.00	6.80	0.10	5'401.82	0.668	0.00981
Biomass	20'279.00	NCV	92.28	83.99	1.60 <sup>(3)</sup>	1'871.30	1.703	0.03238
Other Fuels	64'124.00	NCV	73.50	15.43	5.51	4'713.16	0.990	0.35317
<b>I.A.1. Energy Industries</b>	<b>16'371.00</b>	NCV				<b>983.83</b>	<b>0.060</b>	<b>0.00287</b>
Liquid Fuels	2'362.00	NCV	76.43	2.25	0.60	180.52	0.0053	0.00142
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	5'830.00	NCV	55.01	6.00	0.10	320.70	0.0350	0.00058
Biomass	40.00	NCV	92.00	21.00	1.60 <sup>(3)</sup>	3.68	0.00084	0.000064
Other Fuels	8'139.00	NCV	59.30	2.30	0.10	482.61	0.01870	0.000810
a. Public Electricity and Heat Production	6'280.00	NCV				350.92	0.03625	0.000890
Liquid Fuels	410.00	NCV	73.70	1.00	0.60	30.22	0.00041	0.000246
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	5'830.00	NCV	55.01	6.00	0.10	320.70	0.035	0.00058
Biomass	40.00	NCV	92.00	21.00	1.60 <sup>(3)</sup>	3.68	0.00084	0.000064
Other Fuels	NO	NCV	0.00	0.00	0.00	NO	NO	NO
b. Petroleum Refining	10'091.00	NCV				632.91	0.0236	0.00198
Liquid Fuels	1'952.00	NCV	77.00	2.51	0.60	150.30	0.0049	0.00117
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels (LPG)	8'139.00	NCV	59.30	2.30	0.10	482.61	0.0187	0.00081
c. Manufacture of Solid Fuels and Other Energy Industries	NO	NCV				NO	NO	NO
Liquid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	NO	NO	NO	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  
2000  
Submission 2002

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>88'583.00</b>	NCV				<b>5'576.83</b>	<b>0.40</b>	<b>0.04</b>
Liquid Fuels	33'226.00	NCV	73.89	1.26	0.61	2'455.04	0.04	0.02
Solid Fuels	849.00	NCV	94.00	9.01	1.60	79.81	0.01	0.00
Gaseous Fuels	28'744.00	NCV	55.00	5.82	0.10	1'580.92	0.17	0.00
Biomass	7'279.00	NCV	92.77	20.22	1.54 <sup>(3)</sup>	675.30	0.15	0.01
Other Fuels	18'485.00	NCV	79.04	1.79	0.22	1'461.06	0.03	0.00
a. Iron and Steel	1'197.00	NCV				82.41	0.0051	0.00076
Liquid Fuels		NO	NO	NO	NO	NO	NO	NO
Solid Fuels	425.00	NCV	94.00	9.01	1.60	39.95	0.00383	0.00068
Gaseous Fuels	772.00	NCV	55.00	1.68	0.10	42.46	0.0013	0.000077
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels	NO	NCV	NO	NO	NO	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 )	87'386.00	NCV				5'494.42	0.39	0.04
Liquid Fuels	33'226.00	NCV	73.89	1.26	0.61	2'455.04	0.042	0.020
Solid Fuels	424.00	NCV	94.00	9.01	1.60	39.86	0.0038	0.00068
Gaseous Fuels	27'972.00	NCV	55.00	5.93	0.10	1'538.46	0.1660	0.00280
Biomass	7'279.00	NCV	88.60	20.22	1.54 <sup>(3)</sup>	644.90	0.147	0.0112
Other Fuels (Cement/Lime/Glass)	18'485.00	NCV	79.04	1.79	0.22	1'461.06	0.033	0.0040

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

Switzerland  
2000  
Submission 2002

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>210'808.44</b>	NCV				<b>15'563.37</b>	<b>2.13</b>	<b>2.06</b>
Gasoline	141'016.40	NCV	73.88	11.88	11.54	10'418.73	1.68	1.63
Diesel	49'937.04	NCV	73.60	2.90	2.75	3'675.24	0.14	0.14
Natural Gas	NO	NCV	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels	19'855.00	NCV	74.01	15.51	15.07	1'469.40	0.31	0.30
a. Civil Aviation	3'234.00	NCV				236.73	0.06	0.01
Aviation Gasoline	IE	NCV	IE	IE	IE	IE	IE	IE
Jet Kerosene	3'234.00	NCV	73.20	17.78	2.32	236.73	0.06	0.01
b. Road Transportation	206'246.44	NCV				15'228.90	2.003	2.053
Gasoline	137'782.40	NCV	73.90	11.75	11.75	10'182.00	1.618	1.620
Diesel Oil	48'609.04	NCV	73.60	1.58	2.76	3'577.50	0.077	0.134
Natural Gas	NO	NCV	NO	NO	NO	NO	NO	NO
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels (please specify)	19'855.00	NCV				1'469.40	0.308	0.299
Fuel tourism gasoline	27'197.00	NCV	73.90	11.75	11.75	2'009.80	0.320	0.320
Fuel tourism diesel	-7'342.00	NCV	73.60	1.58	2.76	-540.40	-0.012	-0.020
		NCV	0.00	0.00	0.00			
c. Railways	376.00	NCV				27.67	0.00	0.00
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Liquid Fuels (Diesel)	376.00	NCV	73.60	2.63	2.63	27.67	0.0010	0.0010
Other Fuels (please specify)	NO	NCV				NO	NO	NO
		NCV	NO	NO	NO			
d. Navigation	952.00	NCV				70.07	0.07	0.00
Coal	NO	NCV	NO	NO	NO	NO	NO	NO
Residual Oil	NO	NCV	NO	NO	NO	NO	NO	NO
Gas/Diesel Oil	952.00	NCV	73.60	70.38	2.18	70.07	0.07	0.0021
Other Fuels (please specify)	NO	NCV				NO	NO	NO
		NCV	NO	NO	NO			
e. Other Transportation	NO	NCV				NO	NO	NO
Liquid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NCV	NO	NO	NO	NO	NO	NO

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

Switzerland  
2000  
Submission 2002

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>261'987.00</b>	NCV				<b>17'167.41</b>	<b>2.53</b>	<b>0.16</b>
Liquid Fuels	177'328.00	NCV	73.70	1.01	0.60	13'069.04	0.18	0.11
Solid Fuels	220.00	NCV	94.00	300.00	1.60	20.68	0.07	0.00
Gaseous Fuels	63'640.00	NCV	55.00	7.32	0.10	3'500.20	0.47	0.01
Biomass	12'960.00	NCV	92.00	120.00	1.63 <sup>(3)</sup>	1'192.32	1.56	0.02
Other Fuels	7'839.00	NCV	73.67	33.30	2.81	577.49	0.26	0.02
a. Commercial/Institutional	86'710.00	NCV				5'562.21	0.84	0.04
Liquid Fuels	55'170.00	NCV	73.70	1.02	0.60	4'066.00	0.06	0.0330
Solid Fuels	90.00	NCV	94.00	300.00	1.60	8.46	0.03	0.00014
Gaseous Fuels	27'050.00	NCV	55.00	8.39	0.10	1'487.75	0.23	0.0027
Biomass	4'400.00	NCV	92.00	120.00	1.68 <sup>(3)</sup>	404.80	0.53	0.0074
Other Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
b. Residential	165'940.00	NCV				10'922.92	1.43	0.09
Liquid Fuels	120'960.00	NCV	73.70	1.01	0.60	8'914.75	0.12	0.0730
Solid Fuels	130.00	NCV	94.00	300.00	1.60	12.22	0.04	0.00021
Gaseous Fuels	36'290.00	NCV	55.00	6.53	0.10	1'995.95	0.24	0.0036
Biomass	8'560.00	NCV	92.00	120.00	1.60 <sup>(3)</sup>	787.52	1.03	0.0137
Other Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
c. Agriculture/Forestry/Fisheries	9'337.00	NCV				682.28	0.2640	0.02275
Liquid Fuels	1'198.00	NCV	73.70	1.00	0.60	88.29	0.0012	0.00072
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	300.00	NCV	55.00	6.00	0.10	16.50	0.0018	0.00003
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels (Gasoline and Diesel)	7'839.00	NCV	73.67	33.30	2.81	577.49	0.26	0.02
<b>1.A.5 Other (Not elsewhere specified) <sup>(4)</sup></b>	<b>9'806.00</b>	NCV				<b>722.60</b>	<b>0.37</b>	<b>0.03</b>
Liquid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Solid Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Gaseous Fuels	NO	NCV	NO	NO	NO	NO	NO	NO
Biomass	NO	NCV	NO	NO	NO <sup>(3)</sup>	NO	NO	NO
Other Fuels (gasoline and diesel)	9'806.00	NCV	73.69	37.63	2.76	722.60	0.37	0.03

<sup>(4)</sup> Include military fuel use under this category.

<b>Documentation Box:</b>
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 apparent consumption in the industry sector is the calculated difference (by fuel) between the sum of the apparent consumption of all sectors and the consumption of the non industry 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  
2000  
Submission 2002

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	Gg		3'984.00	1.00			0.00	3'983.00	44.80	NCV	178'438.40	18.90	3'372.49		3'372.49	1.00	12'365.78
		Jet Kerosene	Gg		1'582.00	0.00	1'507.00		0.00	75.00	44.60	NCV	3'345.00	19.50	65.23		65.23	1.00	239.17
		Other Kerosene	Gg		0.00	0.00	0.00	0.00	0.00	0.00		NCV	0.00		0.00		0.00		0.00
		Shale Oil	Gg		0.00	0.00			0.00	0.00		NCV	0.00		0.00		0.00		0.00
		Gas / Diesel Oil	Gg		5'628.00	20.00	0.00	0.00	-514.00	6'122.00	43.30	NCV	265'082.60	20.20	5'354.67	0.00	5'354.67	1.00	19'633.78
		Residual Fuel Oil	Gg		790.00	597.00	0.00	0.00	0.00	193.00	40.20	NCV	7'758.60	21.10	163.71		163.71	1.00	600.26
		LPG	Gg		323.00	24.00			0.00	299.00	47.30	NCV	14'142.70	17.20	243.25	0.00	243.25	1.00	891.93
		Ethane	Gg		0.00	0.00			0.00	0.00		NCV	0.00		0.00	0.00	0.00		0.00
		Naphtha	Gg		0.00	0.00			0.00	0.00		NCV	0.00		0.00	0.00	0.00		0.00
		Bitumen	Gg		0.00	0.00			0.00	0.00		NCV	0.00		0.00	0.00	0.00		0.00
		Lubricants	Gg		0.00	0.00	0.00	0.00	0.00	0.00		NCV	0.00		0.00	0.00	0.00		0.00
		Petroleum Coke	Gg		16.00				0.00	16.00	31.00	NCV	496.00	27.30	13.54		13.54	1.00	49.65
		Refinery Feedstocks	Gg						0.00	0.00		NCV	0.00		0.00		0.00		0.00
		Other Oil	Gg							0.00		NCV	0.00		0.00		0.00		0.00
Liquid Fossil Totals												469'263.30		9'212.88	0.00	9'212.88		33'780.57	
Solid Fossil	Primary Fuels	Anthracite <sup>(2)</sup>							0.00		NCV	0.00		0.00		0.00		0.00	
		Coking Coal	Gg		28.00	0.00		0.00	28.00	28.10	NCV	786.80	25.80	20.30	0.00	20.30	1.00	74.43	
		Other Bit. Coal	Gg		174.00	0.00		0.00	174.00	28.10	NCV	4'889.40	25.80	126.15		126.15	1.00	462.54	
		Sub-bit. Coal							0.00		NCV	0.00		0.00		0.00		0.00	
		Lignite	Gg		6.00	0.00		0.00	6.00	27.80	NCV	166.80	27.80	4.64		4.64	1.00	17.00	
		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											5'843.00		151.08	0.00	151.08		553.97		
Gaseous Fossil		Natural Gas (Dry)							0.00		NCV	101'900.00	15.30	1'559.07	0.00	1'559.07	1.00	5'716.59	
Total												577'006.30		10'923.04	0.00	10'923.04		40'051.13	
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

2000

Submission 2002

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)	469.26	33'780.57	403.87	29'798.57	16.19	13.36
Solid Fuels (excluding international bunkers)	5.84	553.97	1.07	100.49	446.59	451.30
Gaseous Fuels	101.90	5'716.59	98.21	5'401.82	3.75	5.83
Other <sup>(3)</sup>			64.12	4'713.16	-100.00	-100.00
<b>Total <sup>(3)</sup></b>	<b>577.01</b>	<b>40'051.13</b>	<b>567.28</b>	<b>40'014.04</b>	<b>1.72</b>	<b>0.09</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 liquid 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  
2000  
Submission 2002

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			0.00	
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) <input type="text"/>				
			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 (Specify source category) <sup>(a)</sup> <input type="text"/>
	<sup>(a)</sup> e.g. Industrial Processes, Waste Incineration, etc.
Since calculation of the emissions in the reference approach is done without taking into account the emissions of primary fuels, no feedstocks have to be defined.. See also documentation box to table 1.A (b).	


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	
0.00	
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  
2000  
Submission 2002

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	NO	0.00	0.00	NO	NO
Post-Mining Activities	NO	0.00	0.00	NO	NO
ii. Surface Mines <sup>(2)</sup>	NO	0.00	0.00	NO	NO
Mining Activities	NO	0.00	0.00	NO	NO
Post-Mining Activities	NO	0.00	0.00	NO	NO
<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	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)	NO
Number of active underground mines	NO
Number of mines with drainage (recovery) systems	NO

<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  
2000  
Submission 2002

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>NO</b>	<b>0.23</b>	
i. Exploration	NO			NO	NO		NO	NO	
ii. Production <sup>(4)</sup>	NO			NO	NO		NO	NO	
iii. Transport	NO			NO	NO		NO	NO	
iv. Refining / Storage	Oil products produced	PJ	210.00	NO	1'071.43		NO	0.23	
v. Distribution of oil products	Gasoline consumption	PJ	169.30	NO	NO		NO	NO	
vi. Other	NO			NO	NO		NO	NO	
<b>I. B. 2. b. Natural Gas</b>							<b>35.00</b>	<b>12.00</b>	
Exploration	NO			NO	NO		NO	NO	
i. Production <sup>(4)</sup> / Processing	NO			NO	NO		NO	NO	
ii. Transmission/Distribution	Apparent consumption	PJ	101.90	343'473.99	117'762.51		35.00	12.00	
iii. Other Leakage	IE			IE	IE		IE	IE	
at industrial plants and power stations				IE	IE		IE	IE	
in residential and commercial sectors				IE	IE		IE	IE	
<b>I. B. 2. c. Venting</b> <sup>(5)</sup>							<b>IE</b>	<b>IE</b>	
i. Oil	IE			IE	IE		IE	IE	
ii. Gas	IE			IE	IE		IE	IE	
iii. Combined	NO			NO	NO		NO	NO	
<b>Flaring</b>							<b>38.60</b>	<b>0.05</b>	<b>NE/IE</b>
i. Oil	Oil products produced	PJ	210.00	183'809.52	225.71	NE	38.60	0.05	NE
ii. Gas	IE			IE	IE	IE	IE	IE	IE
iii. Combined	NO			NO	NO	NO	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>	101.90	PJ
Oil throughput <sup>(a)</sup>	210.00	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: 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  
2000  
Submission 2002

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>64'792.00</b>				<b>4'743.00</b>	<b>0.23</b>	<b>0.15</b>
Jet Kerosene	64'792.00	73.20	0.0036	0.0023	4'743.00	0.23	0.15
Gasoline	IE	IE	IE	IE	IE	IE	IE
<b>Multilateral Operations <sup>(1)</sup></b>	NO	NO	NO	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.

**Documentation box:** Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

International aviation bunker consumption is the difference between apparent and domestic consumption.

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	0.00	NO
Aviation	4.75	95.25

<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  
2000  
Submission 2002




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>2'372.80</b>	<b>0.44</b>	<b>0.31</b>	<b>1'031.22</b>	<b>479.98</b>	<b>92.35</b>	<b>65.16</b>	<b>0.00877</b>	<b>0.00786</b>	<b>0.32</b>	<b>11.48</b>	<b>7.87</b>	<b>3.50</b>
<b>A. Mineral Products</b>	<b>2'225.00</b>	<b>0.02</b>	<b>NO</b>							<b>0.01</b>	<b>2.24</b>	<b>3.49</b>	<b>2.42</b>
1. Cement Production	2'190.00	0.02								0.01	2.24	0.19	2.42
2. Lime Production	35.00												
3. Limestone and Dolomite Use	NO												
4. Soda Ash Production and Use	NO												
5. Asphalt Roofing	NO									NO	3.30		
6. Road Paving with Asphalt	IE									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>0.40</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>1.20</b>	<b>0.29</b>	<b>0.50</b>
1. Ammonia Production	NO	NO								NO	NO	NO	NO
2. Nitric Acid Production			0.31							0.01			
3. Adipic Acid Production			NO							NO	NO	NO	
4. Carbide Production	13.00	NO								NO	NO	NO	0.50
5. Other (please specify)	NO	0.40	NO	NO	NO	NO	NO	NO	NO	NO	1.20	0.29	NO
<b>C. Metal Production</b>	<b>133.80</b>	<b>0.000014</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>7.50</b>	<b>NO</b>	<b>0.00162</b>	<b>0.19</b>	<b>2.69</b>	<b>0.32</b>	<b>0.38</b>
1. Iron and Steel Production	76.00	NO								0.19	1.14	0.27	0.10
2. Ferroalloys Production	1.00	0.000014								0.001	0.13	0.03	0.001
3. Aluminium Production	56.80	NO					7.50			0.01	1.42	0.02	0.28
4. SF <sub>6</sub> Used in Aluminium and Magnesium Foundries									0.00162				
5. Other (please specify)	NO	NO	NO	NO	NO	0.00	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  
2000  
Submission 2002

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													
2. Food and Drink <sup>(2)</sup>	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>				1'031.22	479.98	92.35	57.66	0.00877	0.00624				
1. Refrigeration and Air Conditioning Equipment					441.93		1.84		NO				
2. Foam Blowing					14.12		NO		NO				
3. Fire Extinguishers					NO		NO		NO				
4. Aerosols/ Metered Dose Inhalers					23.93		NO		NO				
5. Solvents					NO		5.29		0.00215				
6. Semiconductor Manufacture					NO		50.53		0.00033				
7. Electrical Equipment									0.00285				
8. Other (please specify) 				NO	NO	NO	NO	NO	0.00092				
<b>G. Other (please specify) </b>	1.00	0.02	NO	NO	NO	NO	NO	NO	NO	0.11	5.36	3.77	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  
2000  
Submission 2002

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>2'225.00</b>		<b>0.02</b>		<b>0.00</b>	
1. Cement Production	cement production	3'720.00	0.59			2'190.00		0.02			
2. Lime Production	lime production	94.00	0.37			35.00					
3. Limestone and Dolomite Use	NO		NO			NO					
4. Soda Ash						NO					
Soda Ash Production	NO		NO			NO					
Soda Ash Use	NO		NO			NO					
5. Asphalt Roofing	asphalt concrete (only NMVOC emissions)	6'000.00	NO			NO					
6. Road Paving with Asphalt	IE (Asphalt roofing)		IE			IE					
7. Other (please specify)						0.00		0.00		0.00	
Glass Production	IE (Table 1.A.(a))		IE			IE					
			0.00	0.00	0.00						
<b>B. Chemical Industry</b>						<b>13.00</b>		<b>0.40</b>		<b>0.31</b>	
1. Ammonia Production <sup>(3)</sup>	only NH3 emissions		NO	NO	NO	NO		NO		NO	
2. Nitric Acid Production	nitric acid	65.00			0.005					0.31	
3. Adipic Acid Production	NO				NO					NO	
4. Carbide Production		16.00	0.81	NO		13.00		NO			
Silicon Carbide	split is confidential		IE	IE		IE		NO			
Calcium Carbide	split is confidential		IE	IE		IE		NO			
5. Other (please specify)						NO		0.40		NO	
Carbon Black	IE			0.00							
Ethylene	IE		0.00	0.00	0.00						
Dichloroethylene	NO			0.00							
Styrene	NO			0.00							
Methanol	NO			0.00							
Organic chemicals	production of ethylene, PVC,			0.00	0.00	NO		0.40		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  
2000  
Submission 2002

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>133.80</b>		<b>0.00</b>		<b>NO</b>	
1. Iron and Steel Production			0.00			76.00		NO			
Steel	steel production	765.00	0.10			76.00					
Pig Iron	IE		IE	IE		IE		IE			
Sinter	IE		IE	IE		IE		IE			
Coke	IE		IE	IE		IE		IE			
Other (please specify) 						NO		NO			
			0.00	0.00	0.00						
2. Ferroalloys Production		70.00	0.01	0.0000002		1.00		0.000014			
3. Aluminium Production		35.50	1.60	NO		56.80		NO			
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>						<b>IE</b>					
1. Pulp and Paper	IE										
2. Food and Drink	IE		IE			IE					
<b>G. Other (please specify) </b>						<b>1.00</b>		<b>0.02</b>		<b>NO</b>	
Food, drink, pulp, paper, crematories			NE	NE	NO	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.

<b>Documentation box:</b>
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  
2000  
Submission 2002

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>3</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>																						
<b>Total Actual Emissions of Halocarbons (by chemical) and SF<sub>6</sub></b>	NO	4.06	NO	NO	25.61	NO	238.95	1.86	NO	24.51	0.55	NO	NO		7.66	1.47	0.27	NO	NO	NO	NO		7.86
<b>C. Metal Production</b>															1.01	0.10							1.62
Aluminium Production															1.01	0.10							0.81
SF <sub>6</sub> Used in Aluminium Foundries																							0.81
SF <sub>6</sub> Used in Magnesium Foundries																							0.81
<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		0.00
1. By-product Emissions	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		0.00
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		0.00
<b>F(a). Consumption of Halocarbons and SF<sub>6</sub> (actual emissions - Tier 2)</b>	NO	4.06	NO	NO	25.61	NO	238.95	1.86	NO	24.51	0.55	NO	NO		6.65	1.37	0.27	0.00	NO	NO	NO		6.24
1. Refrigeration and Air Conditioning Equipment		4.06			25.61		211.11			24.51							0.26						
2. Foam Blowing							10.69	1.61															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							17.15	0.25			0.55												
5. Solvents															0.10	0.50	0.01						2.15
6. Semiconductor Manufacture															6.55	0.87	0.00						0.33
7. Electrical Equipment																							2.85
8. Other (please specify)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO		0.92
Foam manufacturing, stocks																							0.92
<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		0.00

<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  
2000  
Submission 2002

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>6</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></b> <sup>(3)</sup>	NO	19.01	NO	NO	78.18	NO	420.86	1.35	NO	66.49	0.00	NO	NO		11.10	2.20	0.00	NO	NO	NO	NO		8.77
Production <sup>(4)</sup>																							
Import:	NO	19.01	NO	NO	78.18	NO	497.77	9.40	NO	66.49	0.00	NO	NO		11.10	2.20	0.00	NO	NO	NO	NO		65.55
In bulk		13.97			70.01		242.32	9.40		63.30					11.10	2.20	0.00						58.75
In products <sup>(5)</sup>		5.03			8.17		255.45			3.19													6.80
Export:	NO	0.00	NO	NO	NO	NO	76.91	8.05	NO	0.00	0.00	NO	NO		0.00	0.00	0.00	NO	NO	NO	NO		56.77
In bulk																							3.50
In products <sup>(5)</sup>							76.91	8.05															53.27
Destroyed amount																							
<b>GWP values used</b>	11700	650	150	1300	2800	1000	1300	140	300	3800	2900	6300	560		6500	9200	7000	7000	8700	7500	7400		23900
<b>Total Actual Emissions</b> <sup>(6)</sup> (Gg CO <sub>2</sub> eq.)	NO	2.64	NO	NO	71.70	NO	310.64	0.26	NO	93.15	1.60	0.00	0.00	479.98	49.78	13.50	1.87	NO	NO	NO	NO	65.16	187.76
C. Metal Production															6.57	0.93						7.50	38.72
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	0.00
F(a). Consumption of Halocarbons and SF <sub>6</sub>	NO	2.64	NO	NO	71.70	NO	310.64	0.26	NO	93.15	1.60	NO	NO	479.98	43.21	12.57	1.87	NO	NO	NO	NO	57.66	149.05
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	0.00
<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	2.64	NO	NO	71.70	NO	310.64	0.26	NO	93.15	1.60	NO	NO	479.98	43.21	12.57	1.87	NO	NO	NO	NO	57.66	149.05
Potential emissions - F(p) (7) (Gg CO <sub>2</sub> eq.)	NO	12.35	NO	NO	218.91	NO	547.12	0.19	NO	252.65	0.00	NO	NO	1'031.22	72.15	20.20	0.00	NO	NO	NO	NO	92.35	209.67
Potential/Actual emissions ratio	0.00	4.68	0.00	0.00	3.05	0.00	1.76	0.73	0.00	2.71	0.00	0.00	0.00	2.15	1.67	1.61	0.00	0.00	0.00	0.00	0.00	1.60	1.41

<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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS <sup>(2)</sup>	EMISSIONS <sup>(2)</sup>	
	Description <sup>(1)</sup>	(t)	(kg/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	1.01	
C <sub>2</sub> F <sub>6</sub>			0.00	0.10	
SF <sub>6</sub>				1.62	
Aluminium Foundries	(SF <sub>6</sub> consumption)		0.00	0.81	
Magnesium Foundries			0.00	0.81	
<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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Amount of fluid			Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning <sup>(1)</sup>						
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration (Specify chemical) <sup>(2)</sup> 									
HFC 134a	0.00	39.47	0.00	0.20	0.50	0.18	0.00	0.20	0.00
Commercial Refrigeration 									
HFC 32	9.33	17.60	0.00	3.00	12.00	10.00	0.28	2.11	0.00
HFC 125	63.89	173.59	0.00	3.00	12.00	10.00	1.92	20.83	0.00
HFC 134a	96.31	656.18	0.00	3.00	12.00	10.00	2.89	78.74	0.00
HFC 143a	62.02	178.45	0.00	3.00	12.00	10.00	1.86	21.41	0.00
Transport Refrigeration 									
HFC 125	0.00	5.28	0.00	1.00	14.19	20.00	0.00	0.75	0.00
HFC 134a	0.00	7.18	0.15	1.00	14.63	20.00	0.00	1.05	0.03
HFC 143a	0.00	6.24	0.00	1.00	14.19	20.00	0.00	0.89	0.00
PFC 228	0.00	1.49	0.20	1.00	15.00	20.00	0.00	0.22	0.04
Industrial Refrigeration 									
included in Commercial Ref.									
Stationary Air-Conditioning 									
HFC 32	3.01	26.61	0.00	1.00	6.15	10.00	0.03	1.64	0.00
HFC 125	3.27	32.50	0.00	1.00	6.39	10.00	0.03	2.08	0.00
HFC 134a	8.98	164.06	0.00	1.00	5.43	10.00	0.09	8.91	0.00
HFC 143a	0.00	4.22	0.00	1.00	8.33	10.00	0.00	0.35	0.00
Mobile Air-Conditioning 									
HFC 134a	0.00	991.55	21.50	1.00	9.85	100.00	0.00	97.71	21.50
2 Foam Blowing									
Hard Foam 									
HFC 134a	94.60	NE	0.00	11.30	10.00	100.00	10.69	NE	0.00
HFC 152a	9.20	NE	0.00	17.50	10.00	100.00	1.61	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  
2000  
Submission 2002

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
<b>4 Aerosols</b>									
Metered Dose Inhalers 									
HFC 134a									
Other 									
HFC 134a	17.90							17.15	
HFC 152a	0.20							0.25	
HFC 227ea	0.00							0.55	
<b>5 Solvents</b> 									
HFC 43-10mee	0.00							0.10	
CF <sub>4</sub>	0.10							0.10	
C <sub>2</sub> F <sub>6</sub>	0.50							0.50	
C <sub>3</sub> F <sub>8</sub>	0.00							0.01	
SF <sub>6</sub>	4.00							2.15	
<b>6 Semiconductors</b> 									
HFC 23	0.00							0.00	
CF <sub>4</sub>	11.00							6.55	
C <sub>2</sub> F <sub>6</sub>	1.70							0.87	
C <sub>3</sub> F <sub>8</sub>	0.00							0.00	
SF <sub>6</sub>	0.89							0.33	
<b>7 Electric Equipment</b> 									
SF <sub>6</sub>	48.80	235.70	0.00	3.69	0.47	1.00	0.49	2.36	0.00
<b>8 Other (please specify)</b> 									
SF <sub>6</sub>	4.46	38.66	0.00	11.89	1.00	0.00	0.53	0.39	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.

**Documentation box:**

Table2(II).Fs1:  
Actual emissions = emissions(assembling) + emissions(operation) + emissions(disposal)  
Emissions(assembling) = Emissionfactor \* Amount of refrigerant charged into new systems; incl. exports, without imported precharged systems  
Emissions(operation) = Emissionfactor \* Amount of refrigerant stocked in existing systems  
Emission(disposal) = Emissionfactor \* Amount of refrigerant initially charged into new system \* Factor refrigerant left at time of disposal

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

Switzerland

2000

Submission 2002


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	91.14	0.045	0.089	0.037
A. Paint Application	NO	NO	24.90	NO	NO	NO
B. Degreasing and Dry Cleaning	NO	NO	8.24	NO	NO	NO
C. Chemical Products, Manufacture and Processing			15.40	NO	NO	NO
D. Other (please specify)	NO	0.39	42.60	0.05	0.09	0.04
Spray cans, cosmetic institutions, hair stylists, house cleaning,	NO	0.39	52.60	0.05	0.09	0.04
laboratories, textile production, vehicles dewaxing, printing industries						
VOC tax			-10.00			

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  
2000  
Submission 2002

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
VOC tax (effective only on NMVOC)			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. Switzerland applies since 1.1.2000 a so called VOC tax; the value in table 3 is a first estimation of the effectiveness of the tax.</p>



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

Switzerland

2000

Submission 2002


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>136.33</b>	<b>8.35</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>A. Enteric Fermentation</b>	<b>117.35</b>				
1. Cattle	111.15				
Dairy Cattle	73.30				
Non-Dairy Cattle	37.85				
2. Buffalo	NO				
3. Sheep	2.99				
4. Goats	0.53				
5. Camels and Llamas	NO				
6. Horses	1.02				
7. Mules and Asses	NE				
8. Swine	1.57				
9. Poultry	0.09				
10. Other ( <i>please specify</i> ) 	0.00				
<b>B. Manure Management</b>	<b>18.98</b>	<b>1.37</b>			<b>0.00</b>
1. Cattle	13.26				
Dairy Cattle	10.24				
Non-Dairy Cattle	3.02				
2. Buffalo	NO				
3. Sheep	0.06				
4. Goats	0.01				
5. Camels and Llamas	NO				
6. Horses	0.29				
7. Mules and Asses	NE				
8. Swine	5.26				
9. Poultry	0.10				

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

Switzerland  
2000  
Submission 2002


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		0.124			
12. Solid Storage and Dry Lot		1.242			
13. Other (please specify) ■■		0.00			0.00
C. Rice Cultivation	NO				0.00
1. Irrigated	NO				
2. Rainfed	NO				
3. Deep Water	NO				
4. Other (please specify) ■■	NO				0.00
D. Agricultural Soils <sup>(1)</sup>	0.00	6.98			NE
1. Direct Soil Emissions		4.04			
2. Animal Production		0.58			
3. Indirect Emissions		2.37			
4. Other (please specify) ■■	0.00	0.00			0.00
E. Prescribed Burning of Savannas	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues	NE	NE	NE	NE	NE
1. Cereals	0.00	0.00			
2. Pulse	0.00	0.00			
3. Tuber and Root	0.00	0.00			
4. Sugar Cane	0.00	0.00			
5. Other (please specify) ■■	0.00	0.00	0.00	0.00	0.00
G. Other (please specify) ■■	0.00	0.00	0.00	0.00	0.00

<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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA <sup>(1)</sup> AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size <sup>(2)</sup> (1000 head)	Average daily feed intake (MJ/day)	CH <sub>4</sub> conversion (%)	CH <sub>4</sub> (kg CH <sub>4</sub> /head/yr)
1. Cattle	1'588			69.99
Dairy Cattle <sup>(3)</sup>	714	260.8	6.00	102.66
Non-Dairy Cattle	874	110.1	6.00	43.31
2. Buffalo	NO			0.00
3. Sheep	421	21.7	5.00	7.10
4. Goats	62	25.7	5.00	8.55
5. Camels and Llamas	NO			0.00
6. Horses	50	153.8	3.50	20.40
7. Mules and Asses	NE			0.00
8. Swine	1'498	31.6	0.54	1.05
9. Poultry	6'790	2.1	0.16	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.

<b>Documentation box:</b>
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 2000	head	kg N/head/year	Frac <sub>GASM</sub> <sup>(6)</sup>	N volatilized (kg N)
<b>Cattle</b>	<b>1'588'005</b>			
dairy cows <sup>(1)</sup>	714'292	109	0.335	26'106'301
rearing cattle 1st year	236'041	26	0.235	1'442'211
rearing cattle 2nd year	221'864	42	0.235	2'189'798
rearing cattle 3rd year	129'767	63	0.235	1'921'200
fattening calves	138'913	12	0.385	641'778
fattening cattle < 1/2 year	42'621	8	0.385	131'273
fattening cattle >1/2 year	104'507	35	0.385	1'408'232
<b>Pigs</b>	<b>1'498'223</b>			
fattening pig places <sup>(2)</sup>	850'812	15	0.475	6062'036
breeding pig places <sup>(3)</sup>	144'572	35	0.475	2'403'510
<b>Sheep</b>	<b>420'740</b>			
sheep places <sup>(4)</sup>	221'743	16	0.155	549'923
<b>Goats</b>	<b>62'499</b>			
goat places <sup>(5)</sup>	36'675	18	0.305	201'346
<b>Horses</b>	<b>50'347</b>			
foals < 1 year	3'918	17	0.335	22'313
foals 1-3 years	6'215	30	0.335	62'461
horses > 3 years	40'214	61	0.335	821'773
<b>Ponies, Mules and Asses</b>	<b>11'808</b>	25	0.335	98'892
<b>Poultry</b>	<b>6'789'720</b>			
laying hens	2'150'303	0.71	0.555	847'327
young hens < 18 weeks	831'663	0.34	0.555	156'935
broilers	3'807'754	0.4	0.495	753'935
turkeys	193'263	1.4	0.495	133'931
<b>Total</b>	<b>10'421'342</b>			<b>45'955'173</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>(6)</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  
2000  
Submission 2002

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/head/yr)	(CH <sub>4</sub> m <sup>3</sup> /kg VS)	(kg CH <sub>4</sub> /head/yr)			
1. Cattle	1588	100					8.35	
Dairy Cattle <sup>(4)</sup>	714	100			1'303.0	0.24	14.34	
Non-Dairy Cattle	874	100			534.0	0.17	3.46	
2. Buffalo	NO						0.00	
3. Sheep	421	100			107.4	0.19	0.14	
4. Goats	62	100			127.0	0.17	0.14	
5. Camels and Llamas	NO						0.00	
6. Horses	50	100			1'369.0	0.33	5.80	
7. Mules and Asses	NE						0.00	
8. Swine	1498	100			124.9	0.45	3.51	
9. Poultry	6790	100			6.9	0.32	0.01	

<sup>(1)</sup> See footnote 1 to Table 4.A of this common reporting format.  
<sup>(2)</sup> 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)).  
<sup>(3)</sup> VS=Volatile Solids; Bo=maximum methane producing capacity for manure IPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15).  
<sup>(4)</sup> 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 <sup>(a)</sup>	Animal waste management system	Climate region	Animal waste management system					
			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						
Dairy Cattle	Allocation (%)	Cool						
		Temperate						
		Warm						
Rearing Cattle	Allocation (%)	Cool	0.00	33.00	0.00	26.00	41.00	0.00
		Temperate						
		Warm						
Rearing Cattle	Allocation (%)	Cool						
		Temperate						
		Warm						
Fattening Cattle	Allocation (%)	Cool	0.00	89.20	0.00	8.80	2.00	0.00
		Temperate						
		Warm						
Fattening Cattle	Allocation (%)	Cool						
		Temperate						
		Warm						
Fattening Calves	Allocation (%)	Cool	0.00	0.00	0.00	98.00	2.00	0.00
		Temperate						
		Warm						
Fattening Calves	Allocation (%)	Cool						
		Temperate						
		Warm						
Swine	Allocation (%)	Cool	0.00	93.00	0.00	7.00	0.00	0.00
		Temperate						
		Warm						
Swine	Allocation (%)	Cool						
		Temperate						
		Warm						
Sheep	Allocation (%)	Cool	0.00	0.00	0.00	31.00	69.00	0.00
		Temperate						
		Warm						
Sheep	Allocation (%)	Cool						
		Temperate						
		Warm						
Goats	Allocation (%)	Cool	0.00	0.00	0.00	80.00	20.00	0.00
		Temperate						
		Warm						
Goats	Allocation (%)	Cool						
		Temperate						
		Warm						
Horses	Allocation (%)	Cool	0.00	10.20	0.00	82.80	7.00	0.00
		Temperate						
		Warm						
Horses	Allocation (%)	Cool						
		Temperate						
		Warm						
Poultry	Allocation (%)	Cool	0.00	0.00	0.00	100.00	0.00	0.00
		Temperate						
		Warm						
Poultry	Allocation (%)	Cool						
		Temperate						
		Warm						
Distribution of Y <sub>2</sub>	Allocation (%)	Cool	0.00	52.00	0.00	23.00	25.00	0.00
		Temperate						
		Warm						
Distribution of Y <sub>2</sub>	Allocation (%)	Cool						
		Temperate						
		Warm						

<sup>(a)</sup> Copy the above table as many times as necessary.  
<sup>(b)</sup> 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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other	(kg N <sub>2</sub> O-N/kg N)	
Non-Dairy Cattle									Anaerobic lagoon	0.000
Dairy Cattle	714	109.9	0	50'926'121	0	21'814'271	5'728'208	0	Liquid system	0.001
Sheep	217	16.0	0	0	0	1'076'320	2'395'680	0	Solid storage and dry lot	0.020
Swine	996								Other	0.000
Poultry	6'982	0.53	0	0	0	3'705'189	0	0		
Other (please specify) <input type="checkbox"/>										
Rearing cattle 1st year	236	26.0	0	2'024'880	0	1'595'360	2'515'760	0		
Rearing cattle 2nd year	222	42.0	0	3'076'920	0	2'424'240	3'822'840	0		
Rearing cattle 3rd year	130	63.0	0	2'702'700	0	2'129'400	3'357'900	0		
Fattening cattle > 1/2 year	105	35.0	0	3'278'100	0	323'400	73'500	0		
Fattening cattle < 1/2 year	43	8.0	0	0	0	337'120	6'880	0		
Fattening calves	139	12.0	0	0	0	1'634'640	33'360	0		
Fattening pig places	851	15.0	0	11'871'450	0	893'550	0	0		
Breeding pig places	145	35.0	0	4'719'750	0	355'250	0	0		
Goats	37	18.0	0	0	0	532'800	133'200	0		
Horses	50	60.6	0	309'060	0	2'508'840	212'100	0		
Mules and Asses	12	26.0	0	31'824	0	258'336	21'840	0		
<b>Total per AWMS<sup>(2)</sup></b>			<b>0</b>	<b>78'940'805</b>	<b>0</b>	<b>39'588'716</b>	<b>18'301'268</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: (1) number of animals is given in animal places; (2) 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

2000

Submission 2002

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>0.00</b>
Continuously Flooded				0.00	
Intermittently Flooded	Single Aeration			0.00	
	Multiple Aeration			0.00	
<b>2. Rainfed</b>					<b>0.00</b>
Flood Prone				0.00	
Drought Prone				0.00	
<b>3. Deep Water</b>					<b>0.00</b>
Water Depth 50-100 cm				0.00	
Water Depth > 100 cm				0.00	
<b>4. Other (please specify)</b>					<b>0.00</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

2000

Submission 2002

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>4.04</b>
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	60'400'000	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.012	1.12
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	75'178'521	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.012	1.48
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	1'158'381'569	(kg N <sub>2</sub> O-N/kg dry biomass) <sup>(2)</sup>	0.00035	0.65
Crop Residue	Dry production of other crops (kg dry biomass/yr)	9'437'888'320	(kg N <sub>2</sub> O-N/kg dry biomass) <sup>(2)</sup>	0.00005	0.74
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>18'301'268</b>	<b>(kg N<sub>2</sub>O-N/kg N)<sup>(2)</sup></b>	<b>0.020</b>	<b>0.58</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)	52'085'173	(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)	39'446'158	(kg N <sub>2</sub> O-N/kg N) <sup>(2)</sup>	0.025	1.55
<b>Other (please specify)</b>					<b>0.00</b>
				0.000	

<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: 4'3351 t NH<sub>3</sub>-N from liquid and solid manure, 3'642 t NH<sub>3</sub>-N from synthetic fertilizers (6% of 60'700t), 867 t NH<sub>3</sub>-N from pasture range (5% of 17'335t)  
 1'600 t NH<sub>3</sub>-N from soils (1.5 kg NH<sub>3</sub>-N/ha) and 2'948 t NO<sub>x</sub>-N from synthetic fertilizers and animal wastes (1.5% of 196'564t)  
 The fractions Frac<sub>NCRBF</sub>, Frac<sub>NCR0</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

**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>NCR0</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).

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

Switzerland  
2000  
Submission 2002

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="checkbox"/>								0.00	0.00
						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  
2000  
Submission 2002






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	566949.00	0.0063	0.85	0.00			0.00	0.00					70			
Barley	276932.00	0.0043	0.85	0.00			0.00	0.00					24			
Maize	214581.00	0.0071	0.85	0.00			0.00	0.00					30			
Oats	26566.00	0.0064	0.85	0.00			0.00	0.00					3			
Rye	22635.00	0.0102	0.85	0.00			0.00	0.00					5			
Rice	0.00						0.00	0.00								
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Spelt	7390.00	0.0112	0.85	0.00			0.00	0.00					2			
Triticale	64740.00	0.0100	0.85	0.00			0.00	0.00					13			
							0.00	0.00								
<b>2. Pulse <sup>(1)</sup></b>									<b>0.00</b>	<b>0.00</b>						
Dry bean	1137.00	0.0338	0.85	0.00			0.00	0.00					1	0.0443	50312	1.0
Pean	8954.00	0.0200	0.88	0.00			0.00	0.00					4	0.0276	247130	4.9
Soybeans	3750.00	0.0400	0.85	0.00			0.00	0.00					3	0.0600	225000	4.4
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Leguminous vegetables	15513.00	0.0185	0.18	0.00			0.00	0.00					6	0.0177	274580	5.4
							0.00	0.00								
<b>3 Tuber and Root</b>									<b>0.00</b>	<b>0.00</b>						
Potatoes	600600.00	0.0010	0.22	0.00			0.00	0.00					12			
Other (please specify)									<b>0.00</b>	<b>0.00</b>						
Fodder beet	258000.00	0.0014	0.16	0.00			0.00	0.00					7			
Sugar Beet	1408448.00	0.0023	0.22	0.00			0.00	0.00					62			
							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	6460767.00	0.0036	1.00	0.00			0.00	0.00					452	0.0049	31916189	626.9
Silage corn	1276347.00	0.0003	1.00	0.00			0.00	0.00					7			
Fruits	338910.00	0.0007	0.17	0.00			0.00	0.00					5			
Vine	166825.00	0.0012	0.20	0.00			0.00	0.00					4			
Renewable energy crops	4077.00	0.0140	0.90	0.00			0.00	0.00					1			
Non-leguminous vegetables	294764.00	0.0031	0.20	0.00			0.00	0.00					18			
Sunflowers	11666.00	0.0180	0.85	0.00			0.00	0.00					4			
Tobacco	1182.00	0.0260	1.00	0.00			0.00	0.00					1			
Rape	39060.00	0.0140	0.90	0.00			0.00	0.00					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  
2000  
Submission 2002

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>9'852.33</b>	<b>-11'672.83</b>	<b>-1'820.50</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>9'852.33</b>	<b>-11'672.83</b>	<b>-1'820.50</b>				
1. Tropical Forests			0.00				
2. Temperate Forests	9'852.33	-11'672.83	-1'820.50				
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			0.00				
Cultivation of Organic Soils			0.00				
Liming of Agricultural Soils			0.00				
Forest Soils			0.00				
Other (please specify) <sup>(3)</sup> 	0.00	0.00	0.00				
			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>
			NO				

<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  
2000  
Submission 2002

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) ■■■				0.00	
					0.00	
Temperate	Plantations		NO		0.00	
			NO		0.00	
	Commercial	Evergreen	786.00	5.06	2.53	1'989.50
		Deciduous	326.00	7.33	3.66	1'194.00
	Other (specify) ■■■				0.00	
Boreal					0.00	
			Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees (specify type) ■■■					0.00	0.00
					0.00	
Total annual growth increment (Gg C)						3'183.50
Gg CO <sub>2</sub>						11'672.83
			Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)	
Total biomass removed in Commercial Harvest			3'004.00	0.50	1'502.00	
Traditional Fuelwood Consumed			847.00	0.50	423.50	
Total Other Wood Use				0.00		
Total Biomass Consumption from Stocks <sup>(1)</sup> (Gg C)						1'925.50
Other Changes in Carbon Stocks <sup>(2)</sup> (Gg C)						761.50
Gg CO <sub>2</sub>						9'852.33
Net annual carbon uptake (+) or release (-) (Gg C)						496.50
Net CO <sub>2</sub> emissions (-) or removals (+) (Gg CO <sub>2</sub> )						1'820.50

<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  
2000  
Submission 2002

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>	CH <sub>4</sub>		N <sub>2</sub> O	
(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	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>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub>		
Vegetation types								(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.

<b>Documentation box:</b>
NO

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

Switzerland  
2000  
Submission 2002

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  
2000  
Submission 2002

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>			<b>0.00</b>
High Activity Soils		0.00	
Low Activity Soils		0.00	
Sandy		0.00	
Volcanic		0.00	
Wetland (Aquic)		0.00	
Other ( <i>please specify</i> ) 			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		0.00	
Pasture/Forest		0.00	
<b>Warm Temperate</b>			<b>0.00</b>
Upland Crops		0.00	
Pasture/Forest		0.00	
<b>Tropical</b>			<b>0.00</b>
Upland Crops		0.00	
Pasture/Forest		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> )		0.00	
Dolomite CaMg(CO <sub>3</sub> ) <sub>2</sub>		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
			percent distribution (%)					
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

2000

Submission 2002

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>1'393.00</b>	<b>61.57</b>	<b>0.332</b>	<b>4.98</b>	<b>2.74</b>	<b>0.97</b>	<b>2.18</b>
<b>A. Solid Waste Disposal on Land</b>	<b>133.00</b>	<b>59.90</b>		<b>0.57</b>	<b>0.73</b>	<b>0.65</b>	
1. Managed Waste Disposal on Land	133.00	59.90		0.57	0.73	0.65	0.029
2. Unmanaged Waste Disposal Sites	IE	IE		IE	IE	IE	
3. Other ( <i>please specify</i> ) 	NO	NO		NO	NO	NO	
<b>B. Wastewater Handling</b>		<b>1.58</b>	<b>0.07</b>	<b>0.50</b>	<b>0.41</b>	<b>0.007</b>	<b>1.30</b>
1. Industrial Wastewater		IE	IE	IE	IE	IE	IE
2. Domestic and Commercial Wastewater		1.58	0.07	0.50	0.41	0.007	1.296
3. Other ( <i>please specify</i> ) 		NO	NO	NO	NO	NO	
<b>C. Waste Incineration</b>	<b>1'260.00</b>	<b>0.09</b>	<b>0.26</b>	<b>3.91</b>	<b>1.60</b>	<b>0.27</b>	<b>0.85</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>0.048</b>	<b>NO</b>
Shredder	NO	NO	NO	NO	0.002	0.048	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  
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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	59.90	133.00
2 Unmanaged Waste Disposal Sites					0.00	0.00	IE	IE
- deep (>5 m)					0.00	0.00		
- shallow (<5 m)					0.00	0.00		
3 Other (please specify) <input type="checkbox"/>							0.00	0.00
					0.00	0.00		

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

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO <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"/>					1'260.00	0.09	0.26
(biogenic) <sup>(3)</sup>		0.00	0.00	0.00	1'290.00		
(plastics and other non-biogenic waste) <sup>(3)</sup>	2'450.00	410.20	0.04	0.11	1'005.00	0.09	0.26
Special waste	280.00	910.71	NE	NE	255.00	NE	NE
		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; amount of waste disposed (MSW and burnable waste from construction sites, sewage sludge): 250 Gg.

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>	7'200.00
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  
2000  
Submission 2002

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 (kg/kg DC)	Sludge (kg/kg DC)		Wastewater (Gg)	Sludge (Gg)	
	(Gg DC <sup>(1)</sup> /yr)		(Gg)							
Industrial Wastewater					0.00	0.00		IE		IE
Domestic and Commercial Wastewater					0.00	0.00		1.584		0.072
Other (please specify) <input type="checkbox"/>								NO	NO	NO
					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>	7'200			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.

**Documentation box:**

Domestic and industrial wastewater are treated in the same wastewater treatment installations. The raw emission factors are emission factors per capita (0.22 kg CH<sub>4</sub>, 0.01 kg N<sub>2</sub>O per inhabitant). Waste gas energy recovery appliances reduce the emission factors of CH<sub>4</sub>. Emissions are calculated as follows: Number of attached inhabitants multiplied with the emission factors for CH<sub>4</sub> and N<sub>2</sub>O. In Switzerland practically all inhabitants are attached to wastewater treatment installations.

**Additional information**

	Domestic	Industrial
Total wastewater (m <sup>3</sup> ):		
Treated wastewater (%):	100%	100%

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"/>				

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

(Sheet 1 of 3)

Switzerland  
2000  
Submission 2002

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		43'853.44	-1'820.50	216.09	11.67	1'031.22	479.98	92.35	65.16	0.0088	0.0079	95.32	392.93	148.79	18.19
1. Energy		40'087.64		17.75	2.29							89.98	378.62	48.81	12.48
A. Fuel Combustion	Reference Approach <sup>(2)</sup>	40'051.13													
	Sectoral Approach <sup>(2)</sup>	40'014.04		5.48	2.29							89.94	378.62	42.26	12.48
1. Energy Industries		983.83		0.06	0.00							0.98	0.28	0.04	1.18
2. Manufacturing Industries and Construction		5'576.83		0.40	0.04							9.49	16.77	0.46	3.54
3. Transport		15'563.37		2.13	2.06							52.95	226.53	27.08	1.69
4. Other Sectors		17'167.41		2.53	0.16							17.79	81.90	7.11	5.88
5. Other		722.60		0.37	0.03							8.73	53.14	7.57	0.19
B. Fugitive Emissions from Fuels		73.60		12.27	NE							0.04	0.001	6.55	NO
1. Solid Fuels		NO		NO	NO							NO	NO	NO	NO
2. Oil and Natural Gas		73.60		12.27	NE							0.04	0.001	6.55	NO
2. Industrial Processes		2'372.80		0.44	0.31	1'031.22	479.98	92.35	65.16	0.0088	0.0079	0.32	11.48	7.87	3.50
A. Mineral Products		2'225.00		0.02	NO							0.01	2.24	3.49	2.42
B. Chemical Industry		13.00		0.40	0.31	NO	NO	NO	NO	NO	NO	0.01	1.20	0.29	0.50
C. Metal Production		133.80		0.000014	NO				7.50		0.0016	0.19	2.69	0.32	0.38
D. Other Production <sup>(3)</sup>		IE										IE	IE	IE	IE
E. Production of Halocarbons and SF <sub>6</sub>							NO		NO		NO				
F. Consumption of Halocarbons and SF <sub>6</sub>						1'031.22	479.98	92.35	57.66	0.0088	0.0062				
G. Other		1.00		0.02	NO	NO	NO	NO	NO	NO	NO	0.11	5.36	3.77	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  
2000  
Submission 2002

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	NMVOC	SO <sub>2</sub>
	emissions	removals			P	A	P	A	P	A				
	(Gg)				CO <sub>2</sub> equivalent (Gg)				(Gg)					
<b>3. Solvent and Other Product Use</b>	<b>NO</b>			<b>0.39</b>							<b>0.05</b>	<b>0.09</b>	<b>91.14</b>	<b>0.04</b>
<b>4. Agriculture</b>	<b>0.00</b>	<b>0.00</b>	<b>136.33</b>	<b>8.35</b>							<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
A. Enteric Fermentation			117.35											
B. Manure Management			18.98	1.37									NE	
C. Rice Cultivation			NO										NO	
D. Agricultural Soils	<sup>(4)</sup>	<sup>(4)</sup>	NE	6.98									NE	
E. Prescribed Burning of Savannas			NO	NO							NO	NO	NO	
F. Field Burning of Agricultural Residues			NE	NE							NE	NE	NE	
G. Other			0.00	0.00							0.00	0.00	0.00	
<b>5. Land-Use Change and Forestry</b>	<sup>(5)</sup> <b>0.00</b>	<sup>(5)</sup> <b>-1'820.50</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	<sup>(5)</sup>	IE <sup>(5)</sup> -1'820.50												
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		
<b>6. Waste</b>	<b>1'393.00</b>		<b>61.57</b>	<b>0.33</b>							<b>4.98</b>	<b>2.74</b>	<b>0.97</b>	<b>2.18</b>
A. Solid Waste Disposal on Land	<sup>(6)</sup> 133.00		59.90								0.57	0.73	0.65	0.03
B. Wastewater Handling			1.58	0.07							0.50	0.41	0.01	1.30
C. Waste Incineration	<sup>(6)</sup> 1'260.00		0.09	0.26							3.91	1.60	0.27	0.85
D. Other		NO	NO	NO							NO	0.002	0.05	NO
<b>7. Other (please specify)</b>	<b>0.00</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>NO</b>	<b>NO</b>

<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  
2000  
Submission 2002

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	4'743.00		0.23	0.15							9.24	4.16	0.21	0.16
Aviation	4'743.00		0.23	0.15							9.24	4.16	0.21	0.16
Marine	NO		NO	NO							NO	NO	NO	NO
Multilateral Operations	NO		NO	NO							NO	NO	NO	NO
CO <sub>2</sub> Emissions from Biomass	1'871.30													

<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  
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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)					
<b>Total National Emissions and Removals</b>	<b>43'853.44</b>	<b>-1'820.50</b>	<b>216.09</b>	<b>11.67</b>	<b>1'031.22</b>	<b>479.98</b>	<b>92.35</b>	<b>65.16</b>	<b>0.0088</b>	<b>0.0079</b>	<b>95.32</b>	<b>392.93</b>	<b>148.79</b>	<b>18.19</b>
<b>1. Energy</b>	<b>40'087.64</b>		<b>17.75</b>	<b>2.29</b>							<b>89.98</b>	<b>378.62</b>	<b>48.81</b>	<b>12.48</b>
A. Fuel Combustion	Reference Approach <sup>(2)</sup>	40'051.13												
	Sectoral Approach <sup>(2)</sup>	40'014.04	5.48	2.29							89.94	378.62	42.26	12.48
B. Fugitive Emissions from Fuels		73.60	12.27	NE							0.04	0.001	6.55	NO
<b>2. Industrial Processes</b>	<b>2'372.80</b>		<b>0.44</b>	<b>0.31</b>	<b>1'031.22</b>	<b>479.98</b>	<b>92.35</b>	<b>65.16</b>	<b>0.0088</b>	<b>0.0079</b>	<b>0.32</b>	<b>11.48</b>	<b>7.87</b>	<b>3.50</b>
<b>3. Solvent and Other Product Use</b>	<b>NO</b>			<b>0.39</b>							<b>0.05</b>	<b>0.09</b>	<b>91.14</b>	<b>0.04</b>
<b>4. Agriculture <sup>(3)</sup></b>	<b>0.00</b>	<b>0.00</b>	<b>136.33</b>	<b>8.35</b>							<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
<b>5. Land-Use Change and Forestry</b>	<sup>(4)</sup>	<b>IE <sup>(4)</sup></b>	<b>-1'820.50</b>	<b>NO</b>							<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>6. Waste</b>	<b>1'393.00</b>		<b>61.57</b>	<b>0.33</b>							<b>4.98</b>	<b>2.74</b>	<b>0.97</b>	<b>2.18</b>
<b>7. Other</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>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>Memo Items:</b>														
<b>International Bunkers</b>	<b>4'743.00</b>		<b>NE</b>	<b>NE</b>							<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
Aviation	4'743.00		0.23	0.15							9.24	4.16	0.21	0.16
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>1'871.30</b>													

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 1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

<sup>(3)</sup> See footnote 4 to Summary 1.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  
2000  
Submission 2002

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>42'032.94</b>	<b>4'537.90</b>	<b>3'618.86</b>	<b>479.98</b>	<b>65.16</b>	<b>187.76</b>	<b>50'922.60</b>
<b>1. Energy</b>	<b>40'087.64</b>	<b>372.85</b>	<b>709.82</b>				<b>41'170.31</b>
A. Fuel Combustion (Sectoral Approach)	40'014.04	115.13	709.82				40'838.99
1. Energy Industries	983.83	1.26	0.89				985.97
2. Manufacturing Industries and Construction	5'576.83	8.34	12.32				5'597.49
3. Transport	15'563.37	44.70	639.68				16'247.76
4. Other Sectors	17'167.41	53.08	48.52				17'269.02
5. Other	722.60	7.75	8.40				738.75
B. Fugitive Emissions from Fuels	73.60	257.72	0.00				331.32
1. Solid Fuels	NO	NO	NO				NO
2. Oil and Natural Gas	73.60	257.72	0.00				331.32
<b>2. Industrial Processes</b>	<b>2'372.80</b>	<b>9.14</b>	<b>96.72</b>	<b>479.98</b>	<b>65.16</b>	<b>187.76</b>	<b>3'211.56</b>
A. Mineral Products	2'225.00	0.40	NO				2'225.40
B. Chemical Industry	13.00	8.38	96.72	NO	NO	NO	118.10
C. Metal Production	133.80	0.00029	NO		7.50	38.72	180.02
D. Other Production	IE						IE
E. Production of Halocarbons and SF <sub>6</sub>				NO	NO	NO	NO
F. Consumption of Halocarbons and SF <sub>6</sub>				479.98	57.66	149.05	686.68
G. Other	1.00	0.36	NO	NO	NO	NO	1.36
<b>3. Solvent and Other Product Use</b>	<b>NO</b>		<b>121.21</b>				<b>121.21</b>
<b>4. Agriculture</b>	<b>0.00</b>	<b>2'862.92</b>	<b>2'588.19</b>				<b>5'451.11</b>
A. Enteric Fermentation		2'464.35					2'464.35
B. Manure Management		398.57	423.46				822.03
C. Rice Cultivation		NO					NO
D. Agricultural Soils <sup>(2)</sup>		NE	2'164.73				2'164.73
E. Prescribed Burning of Savannas		NO	NO				NO
F. Field Burning of Agricultural Residues		NE	NE				NE
G. Other		0.00	0.00				0.00
<b>5. Land-Use Change and Forestry<sup>(1)</sup></b>	<b>-1'820.50</b>	<b>NO</b>	<b>NO</b>				<b>-1'820.50</b>
<b>6. Waste</b>	<b>1'393.00</b>	<b>1'292.99</b>	<b>102.92</b>				<b>2'788.91</b>
A. Solid Waste Disposal on Land	133.00	1'257.90					1'390.90
B. Wastewater Handling		33.26	22.32				55.58
C. Waste Incineration	1'260.00	1.83	80.60				1'342.43
D. Other	NO	NO	NO				NO
<b>7. Other (please specify)</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>
							0.00
<b>Memo Items:</b>							
<b>International Bunkers</b>	<b>4'743.00</b>	<b>4.85</b>	<b>46.81</b>				<b>4'794.66</b>
Aviation	4'743.00	4.85	46.81				4'794.66
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>1'871.30</b>						<b>1'871.30</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
<b>Land-Use Change and Forestry</b>	CO <sub>2</sub> equivalent (Gg )					
A. Changes in Forest and Other Woody Biomass Stocks	9'852.33	-11'672.83	-1'820.50			-1'820.50
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	9'852.33	-11'672.83	-1'820.50	0.00	0.00	-1'820.50

Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(a)</sup>	52'743.10
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(a)</sup>	50'922.60

<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  
2000  
Submission 2002

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, D						
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	CS	C	CS								
B. Chemical Industry	C	CS	C	CS	C	CS						
C. Metal Production	C	CS							T2	M	T2	M
D. Other Production		CS										
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	CS	C	CS	C	CS						

<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  
2000  
Submission 2002

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  
2000  
Submission 2002

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	H
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	H
1. Energy Industries	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	H
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	H
4. Other Sectors	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	H
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	NO	NO
1. Solid Fuels	NO		NO		NO															
2. Oil and Natural Gas	ALL	M	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	NO	NO
<b>2 Industrial Processes</b>	ALL	M	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	M	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
C. Metal Production	ALL	M	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  
2000  
Submission 2002

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	M	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>			PART	M	PART	L							PART	M	PART	M	PART	M	PART	M
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	L											NO			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	L											NE			
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NE		NE								NE		NE		NE		NE	
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  
2000  
Submission 2002

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	M	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
A. Solid Waste Disposal on Land	ALL	M	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	M	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	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
Aviation	ALL	H	ALL	M	ALL	M							ALL	M	ALL	M	ALL	M	ALL	M
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

2000

Submission 2002

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>41'221.00</b>	<b>41'217.40</b>	<b>-0.01</b>	<b>5'079.70</b>	<b>5'079.10</b>	<b>-0.01</b>	<b>3'518.70</b>	<b>3'519.80</b>	<b>0.03</b>
<b>1. Energy</b>		<b>39'729.00</b>	<b>39'725.40</b>	<b>-0.01</b>	<b>458.70</b>	<b>458.30</b>	<b>-0.09</b>	<b>381.70</b>	<b>384.10</b>	<b>0.63</b>
1.A.	Fuel Combustion Activities	39'673.00	39'669.40	-0.01	151.70	151.00	-0.46	381.70	384.10	0.63
1.A.1.	Energy Industries	891.00	905.47	1.62	1.00	1.04	4.00	2.00	1.67	-16.50
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	14'140.20	-0.03	82.00	82.10	0.12	305.00	307.90	0.95
1.A.4.	Other Sectors	18'631.00	18'630.60	0.00	53.00	53.20	0.38	55.00	54.90	-0.18
1.A.5.	Other	770.00	770.00	0.00	8.00	7.00	-12.50	9.00	9.00	0.00
1.B.	Fugitive Emissions from Fuels	56.00	56.00	0.00	307.00	307.30	0.10	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	307.30	0.10	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>9.10</b>	<b>1.11</b>	<b>99.00</b>	<b>98.60</b>	<b>-0.40</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>107.60</b>	<b>-0.37</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'171.00</b>	<b>3'170.90</b>	<b>0.00</b>	<b>2'862.00</b>	<b>2'861.60</b>	<b>-0.01</b>
4.A.	Enteric Fermentation				2'734.00	2'734.20	0.01			
4.B.	Manure Management				437.00	436.70	-0.07	458.00	457.60	-0.09
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'404.00	2'404.10	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-3'188.00</b>	<b>-3'188.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-3'188.00	-3'188.00	0.00						
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:

1990

Switzerland

2000

Submission 2002

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	1'440.80	-0.01	68.00	67.90	-0.15
6.A.	Solid Waste Disposal on Land		137.00	137.00	0.00	1'405.00	1'404.90	-0.01			
6.B.	Wastewater Handling					28.00	28.40	1.43	19.00	19.20	1.05
6.C.	Waste Incineration		1'180.00	1'180.00	0.00	8.00	7.50	-6.25	49.00	48.70	-0.61
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			3'203.00	3'206.80	0.12	NE	5.50	0.00	NE	31.60	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>		49'819.40		49'816.30		-0.01		
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>		53'007.40		53'004.30		-0.01		
										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

2000

Submission 2002

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>43'028.00</b>	<b>43'039.80</b>	<b>0.03</b>	<b>5'104.70</b>	<b>5'104.60</b>	<b>0.00</b>	<b>3'547.90</b>	<b>3'552.40</b>	<b>0.13</b>
<b>1. Energy</b>		<b>41'924.00</b>	<b>41'935.80</b>	<b>0.03</b>	<b>459.70</b>	<b>460.10</b>	<b>0.09</b>	<b>427.90</b>	<b>433.20</b>	<b>1.24</b>
1.A.	Fuel Combustion Activities	41'854.00	41'865.80	0.03	152.70	152.80	0.07	427.90	433.20	1.24
1.A.1.	Energy Industries	1'201.00	1'224.10	1.92	1.40	1.40	0.00	2.30	2.30	0.00
1.A.2.	Manufacturing Industries and Construction	5'410.00	5'410.10	0.00	8.30	8.30	0.00	11.60	11.60	0.00
1.A.3.	Transport	14'668.00	14'657.20	-0.07	78.00	77.50	-0.64	350.00	353.30	0.94
1.A.4.	Other Sectors	19'810.00	19'809.70	0.00	59.00	58.50	-0.85	57.00	57.20	0.35
1.A.5.	Other	765.00	764.70	-0.04	6.00	7.10	18.33	7.00	8.80	25.71
1.B.	Fugitive Emissions from Fuels	70.00	70.00	0.00	307.00	307.30	0.10	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	307.30	0.10	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>8.90</b>	<b>-1.11</b>	<b>99.00</b>	<b>98.60</b>	<b>-0.40</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>109.70</b>	<b>-0.27</b>
<b>4. Agriculture</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>2'839.30</b>	<b>0.01</b>
4.A.	Enteric Fermentation				2'765.00	2'765.30	0.01			
4.B.	Manure Management				438.00	437.70	-0.07	452.00	452.00	0.00
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'387.00	2'387.30	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-3'257.00</b>	<b>-3'257.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-3'257.00	-3'257.00	0.00						
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:

1991

Switzerland

2000

Submission 2002

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	1'432.60	-0.03	72.00	71.60	-0.56
6.A.	Solid Waste Disposal on Land	137.00	137.00	0.00	1'397.00	1'396.50	-0.04			
6.B.	Wastewater Handling				29.00	29.00	0.00	20.00	19.50	-2.50
6.C.	Waste Incineration	1'190.00	1'190.00	0.00	7.00	7.10	1.43	52.00	52.10	0.19
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	3'115.20	0.33	NE	5.00	0.00	NE	30.70	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>				51'680.60			51'696.80		0.03	
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				54'937.60			54'953.80		0.03	

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

Recalculated

year:

1992

(Sheet 1 of 2)

Switzerland

2000

Submission 2002

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>42'635.00</b>	<b>42'632.60</b>	<b>-0.01</b>	<b>5'050.00</b>	<b>5'050.60</b>	<b>0.01</b>	<b>3'568.00</b>	<b>3'572.40</b>	<b>0.12</b>
<b>1. Energy</b>		<b>41'917.00</b>	<b>41'914.60</b>	<b>-0.01</b>	<b>440.00</b>	<b>440.80</b>	<b>0.18</b>	<b>475.00</b>	<b>479.50</b>	<b>0.95</b>
1.A.	Fuel Combustion Activities	41'846.00	41'843.60	-0.01	143.00	143.40	0.28	475.00	479.50	0.95
1.A.1.	Energy Industries	1'280.00	1'302.00	1.72	2.00	1.60	-20.00	2.00	2.20	10.00
1.A.2.	Manufacturing Industries and Construction	4'994.00	4'994.20	0.00	8.00	8.00	0.00	10.00	10.00	0.00
1.A.3.	Transport	14'983.00	14'958.30	-0.16	71.00	71.00	0.00	399.00	401.40	0.60
1.A.4.	Other Sectors	19'830.00	19'829.70	0.00	56.00	55.60	-0.71	57.00	57.10	0.18
1.A.5.	Other	759.00	759.40	0.05	6.00	7.20	20.00	7.00	8.80	25.71
1.B.	Fugitive Emissions from Fuels	71.00	71.00	0.00	297.00	297.40	0.13	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	297.40	0.13	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>8.80</b>	<b>-2.22</b>	<b>99.00</b>	<b>98.60</b>	<b>-0.40</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>111.90</b>	<b>-0.09</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'177.00</b>	<b>3'176.90</b>	<b>0.00</b>	<b>2'807.00</b>	<b>2'807.10</b>	<b>0.00</b>
4.A.	Enteric Fermentation				2'744.00	2'744.10	0.00			
4.B.	Manure Management				433.00	432.70	-0.07	445.00	445.20	0.04
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'362.00	2'361.90	0.00
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-3'355.00</b>	<b>-3'355.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-3'355.00	-3'355.00	0.00						
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

2000

Submission 2002

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	1'424.10	0.01	75.00	75.30	0.40
6.A.	Solid Waste Disposal on Land		137.00	137.00	0.00	1'388.00	1'388.10	0.01			
6.B.	Wastewater Handling					29.00	29.40	1.38	20.00	19.80	-1.00
6.C.	Waste Incineration		1'200.00	1'200.00	0.00	7.00	6.60	-5.71	55.00	55.50	0.91
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			3'303.00	3'327.70	0.75	NE	4.60	0.00	NE	32.80	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)			CO <sub>2</sub> equivalent (Gg)			(%)		
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(3)</sup>			51'253.00			51'255.60			0.01		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			54'608.00			54'610.60			0.00		

<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

2000

Submission 2002

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>39'241.00</b>	<b>39'245.30</b>	<b>0.01</b>	<b>5'005.00</b>	<b>5'005.60</b>	<b>0.01</b>	<b>3'581.00</b>	<b>3'585.30</b>	<b>0.12</b>
<b>1. Energy</b>		<b>39'682.00</b>	<b>39'686.30</b>	<b>0.01</b>	<b>426.00</b>	<b>427.00</b>	<b>0.23</b>	<b>506.00</b>	<b>510.10</b>	<b>0.81</b>
1.A.	Fuel Combustion Activities	39'611.00	39'615.30	0.01	137.00	137.90	0.66	506.00	510.10	0.81
1.A.1.	Energy Industries	962.00	986.80	2.58	1.00	1.30	30.00	1.00	1.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'862.00	4'861.60	-0.01	9.00	8.50	-5.56	10.00	9.60	-4.00
1.A.3.	Transport	13'933.00	13'912.90	-0.14	66.00	65.70	-0.45	433.00	435.40	0.55
1.A.4.	Other Sectors	19'100.00	19'099.80	0.00	55.00	55.10	0.18	55.00	55.30	0.55
1.A.5.	Other	754.00	754.20	0.03	6.00	7.30	21.67	7.00	8.80	25.71
1.B.	Fugitive Emissions from Fuels	71.00	71.00	0.00	289.00	289.10	0.03	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	289.10	0.03	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>8.70</b>	<b>-3.33</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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>114.40</b>	<b>0.35</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'156.00</b>	<b>3'156.10</b>	<b>0.00</b>	<b>2'786.00</b>	<b>2'785.70</b>	<b>-0.01</b>
4.A.	Enteric Fermentation				2'727.00	2'726.90	0.00			
4.B.	Manure Management				429.00	429.20	0.05	443.00	442.40	-0.14
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'343.00	2'343.30	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'325.00</b>	<b>-4'325.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'325.00	-4'325.00	0.00						
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:

1993

(Sheet 2 of 2)

Switzerland

2000

Submission 2002

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	1'413.80	-0.01	78.00	78.40	0.51
6.A.	Solid Waste Disposal on Land	136.00	136.00	0.00	1'378.00	1'377.60	-0.03			
6.B.	Wastewater Handling				30.00	30.00	0.00	20.00	20.20	1.00
6.C.	Waste Incineration	1'200.00	1'200.00	0.00	6.00	6.20	3.33	58.00	58.30	0.52
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		3'438.00	3'475.50	1.09	NE	5.80	0.00	NE	34.10	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>							47'827.00	47'836.20		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>							52'152.00	52'161.20		
								0.02		
								0.02		
								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:

1994

(Sheet 1 of 2)

Switzerland

2000

Submission 2002

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>38'588.00</b>	<b>38'606.00</b>	<b>0.05</b>	<b>4'916.00</b>	<b>4'918.40</b>	<b>0.05</b>	<b>3'592.00</b>	<b>3'596.20</b>	<b>0.12</b>
<b>1. Energy</b>		<b>38'861.00</b>	<b>38'879.00</b>	<b>0.05</b>	<b>407.00</b>	<b>409.90</b>	<b>0.71</b>	<b>544.00</b>	<b>548.80</b>	<b>0.88</b>
1.A.	Fuel Combustion Activities	38'789.00	38'807.00	0.05	128.00	131.20	2.50	544.00	548.80	0.88
1.A.1.	Energy Industries	1'039.00	1'067.60	2.75	1.00	1.40	40.00	1.00	1.30	30.00
1.A.2.	Manufacturing Industries and Construction	4'861.00	4'861.20	0.00	8.00	8.40	5.00	9.00	9.40	4.44
1.A.3.	Transport	14'117.00	14'106.50	-0.07	61.00	61.70	1.15	474.00	476.80	0.59
1.A.4.	Other Sectors	18'023.00	18'022.80	0.00	52.00	52.20	0.38	53.00	52.60	-0.75
1.A.5.	Other	749.00	748.90	-0.01	6.00	7.50	25.00	7.00	8.70	24.29
1.B.	Fugitive Emissions from Fuels	72.00	72.00	0.00	279.00	278.70	-0.11	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	278.70	-0.11	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>8.60</b>	<b>-4.44</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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>116.60</b>	<b>-0.34</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'094.00</b>	<b>3'094.30</b>	<b>0.01</b>	<b>2'751.00</b>	<b>2'751.30</b>	<b>0.01</b>
4.A.	Enteric Fermentation				2'674.00	2'674.10	0.00			
4.B.	Manure Management				420.00	420.20	0.05	437.00	437.10	0.02
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'314.00	2'314.20	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'340.00</b>	<b>-4'340.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'340.00	-4'340.00	0.00						
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

2000

Submission 2002

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	1'405.60	-0.03	83.00	82.80	-0.24
6.A.	Solid Waste Disposal on Land	136.00	136.00	0.00	1'369.00	1'369.20	0.01			
6.B.	Wastewater Handling				31.00	30.70	-0.97	20.00	20.50	2.50
6.C.	Waste Incineration	1'200.00	1'200.00	0.00	6.00	5.70	-5.00	62.00	62.30	0.48
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		3'548.00	3'558.40	0.29	NE	5.60	0.00	NE	35.00	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>				47'096.00		47'120.60		0.05	without new gases
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				51'436.00		51'460.60		0.05	without new gases

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

Recalculated

year:

1995

(Sheet 1 of 2)

Switzerland

2000

Submission 2002

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>39'495.00</b>	<b>39'514.60</b>	<b>0.05</b>	<b>4'895.90</b>	<b>4'897.80</b>	<b>0.04</b>	<b>3'584.30</b>	<b>3'588.30</b>	<b>0.11</b>
<b>1. Energy</b>		<b>39'837.00</b>	<b>39'856.40</b>	<b>0.05</b>	<b>394.90</b>	<b>396.70</b>	<b>0.46</b>	<b>571.30</b>	<b>575.80</b>	<b>0.79</b>
1.A.	Fuel Combustion Activities	39'764.00	39'783.40	0.05	126.90	128.40	1.18	571.30	575.80	0.79
1.A.1.	Energy Industries	1'094.00	1'120.00	2.38	1.60	1.60	0.00	1.30	1.30	0.00
1.A.2.	Manufacturing Industries and Construction	5'098.00	5'098.30	0.01	7.30	7.30	0.00	8.00	8.00	0.00
1.A.3.	Transport	13'815.00	13'808.50	-0.05	57.00	57.40	0.70	500.00	502.90	0.58
1.A.4.	Other Sectors	19'013.00	19'013.00	0.00	55.00	54.70	-0.55	55.00	55.00	0.00
1.A.5.	Other	744.00	743.60	-0.05	6.00	7.40	23.33	7.00	8.60	22.86
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	268.00	268.30	0.11	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	268.30	0.11	0.00	0.00	0.00
<b>2. Industrial Processes</b>		<b>2'622.00</b>	<b>2'622.20</b>	<b>0.01</b>	<b>8.00</b>	<b>8.40</b>	<b>5.00</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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>118.70</b>	<b>-0.25</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'096.00</b>	<b>3'095.60</b>	<b>-0.01</b>	<b>2'710.00</b>	<b>2'710.30</b>	<b>0.01</b>
4.A.	Enteric Fermentation				2'681.00	2'680.80	-0.01			
4.B.	Manure Management				415.00	414.80	-0.05	432.00	432.10	0.02
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'278.00	2'278.20	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'310.00</b>	<b>-4'310.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'310.00	-4'310.00	0.00						
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:

1995

Switzerland

2000

Submission 2002

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	1'397.10	0.01	87.00	86.80	-0.23
6.A.	Solid Waste Disposal on Land		136.00	136.00	0.00	1'361.00	1'360.80	-0.01			
6.B.	Wastewater Handling					31.00	31.10	0.32	21.00	20.80	-0.95
6.C.	Waste Incineration		1'210.00	1'210.00	0.00	5.00	5.30	6.00	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	3'773.80	0.10	NE	4.60	0.00	NE	37.20	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>			47'975.20		48'000.70	0.05			without new gases		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>			52'285.20		52'310.70	0.05			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

2000

Submission 2002

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>39'752.00</b>	<b>39'766.90</b>	<b>0.04</b>	<b>4'829.50</b>	<b>4'831.40</b>	<b>0.04</b>	<b>3'582.50</b>	<b>3'586.90</b>	<b>0.12</b>
<b>1. Energy</b>		<b>40'627.00</b>	<b>40'641.90</b>	<b>0.04</b>	<b>392.50</b>	<b>394.50</b>	<b>0.51</b>	<b>595.50</b>	<b>600.10</b>	<b>0.77</b>
1.A.	Fuel Combustion Activities	40'554.00	40'568.90	0.04	126.50	128.30	1.42	595.50	600.10	0.77
1.A.1.	Energy Industries	1'267.00	1'295.90	2.28	1.50	1.50	0.00	1.50	1.50	0.00
1.A.2.	Manufacturing Industries and Construction	4'853.00	4'853.40	0.01	8.00	7.40	-7.50	8.00	8.40	5.00
1.A.3.	Transport	13'885.00	13'870.10	-0.11	53.00	53.40	0.75	522.00	524.60	0.50
1.A.4.	Other Sectors	19'810.00	19'810.10	0.00	58.00	58.50	0.86	57.00	56.90	-0.18
1.A.5.	Other	739.00	739.40	0.05	6.00	7.50	25.00	7.00	8.70	24.29
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	266.00	266.20	0.08	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	266.20	0.08	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>8.50</b>	<b>-5.56</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3'052.00</b>	<b>3'052.30</b>	<b>0.01</b>	<b>2'681.00</b>	<b>2'680.90</b>	<b>0.00</b>
4.A.	Enteric Fermentation				2'646.00	2'646.00	0.00			
4.B.	Manure Management				406.00	406.30	0.07	429.00	428.70	-0.07
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'252.00	2'252.20	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'460.00</b>	<b>-4'460.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'460.00	-4'460.00	0.00						
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

2000

Submission 2002

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	1'376.10	0.01	90.00	90.20	0.22
6.A.	Solid Waste Disposal on Land	135.00	135.00	0.00	1'340.00	1'339.80	-0.01			
6.B.	Wastewater Handling				32.00	31.70	-0.94	21.00	21.40	1.90
6.C.	Waste Incineration	1'230.00	1'230.00	0.00	5.00	4.60	-8.00	69.00	68.80	-0.29
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	3'914.80	0.38	NE	4.80	0.00	NE	38.60	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>		48'164.00		48'185.20		0.04	
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>		52'624.00		52'645.20		0.04	without new gases

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

Recalculated

year:

1997

(Sheet 1 of 2)

Switzerland

2000

Submission 2002

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>38'913.00</b>	<b>38'924.70</b>	<b>0.03</b>	<b>4'762.50</b>	<b>4'763.50</b>	<b>0.02</b>	<b>3'556.20</b>	<b>3'559.80</b>	<b>0.10</b>
<b>1. Energy</b>		<b>39'967.00</b>	<b>39'978.70</b>	<b>0.03</b>	<b>383.50</b>	<b>384.80</b>	<b>0.34</b>	<b>607.20</b>	<b>611.40</b>	<b>0.69</b>
1.A.	Fuel Combustion Activities	39'894.00	39'905.70	0.03	119.50	120.70	1.00	607.20	611.40	0.69
1.A.1.	Energy Industries	1'176.00	1'203.70	2.36	1.50	1.50	0.00	1.20	1.30	8.33
1.A.2.	Manufacturing Industries and Construction	4'736.00	4'736.20	0.00	8.00	7.70	-3.75	8.00	8.30	3.75
1.A.3.	Transport	14'462.00	14'445.50	-0.11	50.00	49.70	-0.60	539.00	541.50	0.46
1.A.4.	Other Sectors	18'785.00	18'785.10	0.00	54.00	54.20	0.37	52.00	51.60	-0.77
1.A.5.	Other	735.00	735.20	0.03	6.00	7.60	26.67	7.00	8.70	24.29
1.B.	Fugitive Emissions from Fuels	73.00	73.00	0.00	264.00	264.10	0.04	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	264.10	0.04	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>8.70</b>	<b>-3.33</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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>119.70</b>	<b>-0.25</b>
<b>4. Agriculture</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>2'638.70</b>	<b>-0.01</b>
4.A.	Enteric Fermentation				2'606.00	2'605.70	-0.01			
4.B.	Manure Management				409.00	409.30	0.07	427.00	426.60	-0.09
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'212.00	2'212.20	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'636.00</b>	<b>-4'636.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'636.00	-4'636.00	0.00						
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

2000

Submission 2002

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	93.30	0.32
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	21.70	-1.36
6.C.	Waste Incineration	1'240.00	1'240.00	0.00	4.00	4.00	0.00	72.00	71.60	-0.56
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	4'064.40	0.36	NE	4.30	0.00	NE	40.00	0.00
Multilateral Operations		NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass		1'990.00		-100.00						

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>				47'231.70			47'248.00	0.03		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>				51'867.70			51'884.00	0.03		
								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

2000

Submission 2002

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>40'244.00</b>	<b>40'263.10</b>	<b>0.05</b>	<b>4'661.00</b>	<b>4'661.00</b>	<b>0.00</b>	<b>3'504.00</b>	<b>3'506.10</b>	<b>0.06</b>
<b>1. Energy</b>		<b>41'216.00</b>	<b>41'226.70</b>	<b>0.03</b>	<b>386.00</b>	<b>387.30</b>	<b>0.34</b>	<b>698.00</b>	<b>701.60</b>	<b>0.52</b>
1.A.	Fuel Combustion Activities	41'140.00	41'150.70	0.03	124.00	125.30	1.05	698.00	701.60	0.52
1.A.1.	Energy Industries	1'423.00	1'452.80	2.09	2.00	1.80	-10.00	2.00	2.00	0.00
1.A.2.	Manufacturing Industries and Construction	4'893.00	4'892.80	0.00	9.00	9.00	0.00	10.00	9.90	-1.00
1.A.3.	Transport	14'691.00	14'672.30	-0.13	52.00	51.80	-0.38	623.00	625.10	0.34
1.A.4.	Other Sectors	19'402.00	19'401.80	0.00	55.00	55.10	0.18	56.00	56.10	0.18
1.A.5.	Other	731.00	731.00	0.00	6.00	7.60	26.67	7.00	8.50	21.43
1.B.	Fugitive Emissions from Fuels	76.00	76.00	0.00	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	76.00	76.00	0.00	262.00	262.00	0.00	0.00	0.00	0.00
<b>2. Industrial Processes</b>		<b>2'204.00</b>	<b>2'212.40</b>	<b>0.38</b>	<b>9.00</b>	<b>8.80</b>	<b>-2.22</b>	<b>97.00</b>	<b>96.70</b>	<b>-0.31</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	8.10	1.25	97.00	96.70	-0.31
2.C.	Metal Production	119.00	127.40	7.06			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>2'928.80</b>	<b>-0.04</b>	<b>2'612.00</b>	<b>2'611.10</b>	<b>-0.03</b>
4.A.	Enteric Fermentation				2'529.00	2'527.20	-0.07			
4.B.	Manure Management				401.00	401.60	0.15	426.00	425.60	-0.09
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'186.00	2'185.50	-0.02
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'570.00</b>	<b>-4'570.00</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	-4'570.00	-4'570.00	0.00						
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:

1998

Switzerland

2000

Submission 2002

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	1'336.10	0.01	97.00	96.70	-0.31
6.A.	Solid Waste Disposal on Land	134.00	134.00	0.00	1'300.00	1'299.90	-0.01			
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	3.20	6.67	75.00	74.70	-0.40
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	4'248.70	0.44	NE	4.50	0.00	NE	41.80	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		-100.00						

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>		48'409.00		48'430.20		0.04		
				Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>		52'979.00		53'000.20		0.04		

<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:

1999

(Sheet 1 of 2)

Switzerland

2000

Submission 2002

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>40'605.35</b>	<b>40'616.67</b>	<b>0.03</b>	<b>4'567.24</b>	<b>4'590.48</b>	<b>0.51</b>	<b>3'615.63</b>	<b>3'618.63</b>	<b>0.08</b>
<b>1. Energy</b>		<b>41'178.35</b>	<b>41'190.63</b>	<b>0.03</b>	<b>379.16</b>	<b>380.92</b>	<b>0.46</b>	<b>719.61</b>	<b>723.23</b>	<b>0.50</b>
1.A.	Fuel Combustion Activities	41'101.35	41'113.63	0.03	119.28	121.04	1.48	719.61	723.23	0.50
1.A.1.	Energy Industries	1'125.93	1'154.90	2.57	1.42	1.46	2.82	1.03	1.04	0.97
1.A.2.	Manufacturing Industries and Construction	5'499.13	5'499.70	0.01	8.33	8.31	-0.24	12.61	12.67	0.48
1.A.3.	Transport	15'315.63	15'296.80	-0.12	48.57	48.97	0.82	647.51	648.99	0.23
1.A.4.	Other Sectors	18'436.62	18'435.43	-0.01	54.55	54.61	0.11	51.64	52.07	0.83
1.A.5.	Other	724.04	726.80	0.38	6.41	7.69	19.97	6.82	8.46	24.05
1.B.	Fugitive Emissions from Fuels	77.00	77.00	0.00	259.88	259.88	0.00			0.00
1.B.1.	Solid fuel			0.00			0.00			0.00
1.B.2.	Oil and Natural Gas	77.00	77.00	0.00	259.88	259.88	0.00			0.00
<b>2. Industrial Processes</b>		<b>2'246.00</b>	<b>2'245.04</b>	<b>-0.04</b>	<b>8.97</b>	<b>8.97</b>	<b>0.00</b>	<b>96.72</b>	<b>96.72</b>	<b>0.00</b>
2.A.	Mineral Products	2'100.00	2'100.00	0.00	0.38	0.38	0.00			0.00
2.B.	Chemical Industry	13.00	13.00	0.00	8.23	8.23	0.00	96.72	96.72	0.00
2.C.	Metal Production	132.00	131.04	-0.73			0.00			0.00
2.D.	Other Production			0.00						
2.G.	Other	1.00	1.00	0.00	0.36		-100.00			0.00
<b>3. Solvent and Other Product Use</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>120.90</b>	<b>120.90</b>	<b>0.00</b>
<b>4. Agriculture</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2'864.61</b>	<b>2'886.09</b>	<b>0.75</b>	<b>2'578.27</b>	<b>2'577.65</b>	<b>-0.02</b>
4.A.	Enteric Fermentation				2'468.55	2'488.17	0.79			
4.B.	Manure Management				396.06	397.92	0.47	422.53	421.60	-0.22
4.C.	Rice Cultivation						0.00			
4.D.	Agricultural Soils <sup>(2)</sup>			0.00			0.00	2'155.74	2'156.05	0.01
4.E.	Prescribed Burning of Savannas						0.00			0.00
4.F.	Field Burning of Agricultural Residues						0.00			0.00
4.G.	Other						0.00			0.00
<b>5. Land-Use Change and Forestry (net)</b>		<b>-4'226.00</b>	<b>-4'226.00</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>
5.A.	Changes in Forest and Other Woody Biomass Stocks	-4'226.00	-4'226.00	0.00						
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:

1999

(Sheet 2 of 2)

Switzerland

2000

Submission 2002

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		1'407.00	1'407.00	0.00	1'314.50	1'314.50	0.00	100.13	100.13	0.00
6.A.	Solid Waste Disposal on Land	134.00	134.00	0.00	1'278.48	1'278.48	0.00			
6.B.	Wastewater Handling				33.50	33.50	0.00	22.63	22.63	0.00
6.C.	Waste Incineration	1'273.00	1'273.00	0.00	2.52	2.52	0.00	77.50	77.50	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		4'520.00	4'538.24	0.40	NE	4.71	0.00	NE	44.70	0.00
Multilateral Operations		NO	NO	0.00	NO	NO	0.00	NO	NO	0.00
CO <sub>2</sub> Emissions from Biomass		1'894.42	1'920.74	1.39						

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>					48'788.22		48'825.78	0.08		
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(3)</sup>					53'014.22		53'051.78	0.07		

<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  
2000  
Submission 2002

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>	
1.A.1. Energy Industries	CO2, CH4, N2O	Recalculation of the refinery subsector	new heat input value for refinery gas (48.5 GJ/t)	new heat input value for refinery gas	
1.A.3 Transport	CO2, CH4, N2O	Recalculation of the Civil Aviation emissions	new emission factors	new activity data	
1.A.5: Other			correction of faulty allocations		
2. Industrial processes	HFC, PFC, SF6	Model CARBOTECH	new emission factors	new activity data	Emissions presented in table 10s4

<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.
1A3 Transport: Starting with the emission data for LTO and cruise cycles from the Ministry of Aviation, the aviation emissions were allocated in a more precise manner, resulting in slight changes in civil aviation and aviation bunker emissions. The time series 1990-2000 is consistent.
1.A.5 Other: The output of the Off road emission data in the CORINAIR model was not correct, especially for NOx and CO; the time series 1990-2000 is now consistent. Generally, the figures of all inventories (1990-1999) have now been set without rounding, resulting in slight changes of some sector and subsector emissions.
2. Industrial processes: HFC, PFC, SF6 are reported in table 10s4 as a complete time series 1990 - 2000.



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

Switzerland  
2000  
Submission 2002

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.(Emissions/Removals soils)	no data available	
		Agriculture	4.F. (Burning of residues)	not calculated yet	
CH <sub>4</sub>		Agriculture	4.F. (Burning of residues)	not calculated yet	
N <sub>2</sub> O		Agriculture	4.F. (Burning of residues)	not calculated yet	
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>		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.
		Waste Incineration (Energy producing part)	1.A.1. Energy Industries	6. Waste	The main purpose of waste incineration is eliminating the waste
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  
2000  
Submission 2002

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
C4 - C14 Fx	2.F.5 Industrial Processes, Consumption	4.4 t	8 Gg CO <sub>2</sub> per t	20.00	<a href="http://www.dr.dk/klima/artikler/fn-klima/FN2g">www.dr.dk/klima/artikler/fn-klima/FN2g</a>	long lifetime, high vaporation, e.g. GWP of C <sub>4</sub> F <sub>10</sub> = 7Gg / t and C <sub>5</sub> F <sub>12</sub> = 7.5Gg/t and c-C <sub>4</sub> F <sub>8</sub> = 8.7 Gg/t
HFE 7100 - C <sub>4</sub> F <sub>9</sub> OCH <sub>3</sub>	2.F.5 Industrial Processes, Consumption	9.3 t	0.48 Gg CO <sub>2</sub> per t	4.80	<a href="#">3M</a>	
Vertrel XF - C <sub>5</sub> H <sub>2</sub> F <sub>10</sub>	2.F.5 Industrial Processes, Consumption	0 t	1.3 Gg CO <sub>2</sub> per t	1.30	Du Pont	
Zonyl Dupont	Surfactants	0.5 t			Du Pont	

<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  
2000  
Submission 2002

	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</b>												
<b>(Gg)</b>												
<b>1. Energy</b>	<b>0.00</b>	<b>39'739.52</b>	<b>41'935.86</b>	<b>41'914.67</b>	<b>39'686.34</b>	<b>38'879.05</b>	<b>39'856.48</b>	<b>40'642.01</b>	<b>39'978.77</b>	<b>41'226.77</b>	<b>41'190.65</b>	<b>40'087.63</b>
A. Fuel Combustion (Sectoral Approach)	0.00	39'683.52	41'865.86	41'843.67	39'615.34	38'807.05	39'783.48	40'569.01	39'905.77	41'150.77	41'113.65	40'014.03
1. Energy Industries		905.47	1'224.11	1'302.00	986.82	1'067.65	1'120.00	1'295.94	1'203.72	1'452.79	1'154.92	983.84
2. Manufacturing Industries and Construction		5'237.32	5'410.10	4'994.22	4'861.65	4'861.21	5'098.28	4'853.38	4'736.24	4'892.83	5'499.70	5'576.82
3. Transport		14'140.20	14'657.24	14'958.32	13'912.94	14'106.54	13'808.54	13'870.15	14'445.53	14'672.34	15'296.80	15'563.36
4. Other Sectors		18'630.57	19'809.71	19'829.70	19'099.77	18'022.76	19'013.04	19'810.12	18'785.07	19'401.80	18'435.43	17'167.41
5. Other		769.96	764.70	759.43	754.16	748.89	743.62	739.42	735.21	731.01	726.80	722.60
B. Fugitive Emissions from Fuels	0.00	56.00	70.00	71.00	71.00	72.00	73.00	73.00	73.00	76.00	77.00	73.60
1. Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and Natural Gas		56.00	70.00	71.00	71.00	72.00	73.00	73.00	73.00	76.00	77.00	73.60
<b>2. Industrial Processes</b>	<b>0.00</b>	<b>3'363.00</b>	<b>3'034.00</b>	<b>2'736.00</b>	<b>2'548.00</b>	<b>2'731.00</b>	<b>2'622.20</b>	<b>2'220.00</b>	<b>2'207.00</b>	<b>2'212.36</b>	<b>2'245.04</b>	<b>2'372.80</b>
A. Mineral Products		3'113.00	2'812.00	2'540.00	2'388.00	2'597.00	2'515.00	2'125.00	2'075.00	2'071.00	2'100.00	2'225.00
B. Chemical Industry		13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
C. Metal Production		236.00	208.00	182.00	146.00	120.00	93.20	81.00	118.00	127.36	131.04	133.80
D. Other Production		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	NO
<b>3. Solvent and Other Product Use</b>		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>4. Agriculture</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>	<b>NE</b>
A. Enteric Fermentation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Manure Management		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Rice Cultivation		NO	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	NO
E. Prescribed Burning of Savannas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry<sup>(3)</sup></b>	<b>0.00</b>	<b>-3'188.00</b>	<b>-3'257.00</b>	<b>-3'355.00</b>	<b>-4'325.00</b>	<b>-4'340.00</b>	<b>-4'310.00</b>	<b>-4'460.00</b>	<b>-4'636.00</b>	<b>-4'570.00</b>	<b>-4'226.00</b>	<b>-1'820.50</b>
A. Changes in Forest and Other Woody Biomass Stocks		-3'188.00	-3'257.00	-3'355.00	-4'325.00	-4'340.00	-4'310.00	-4'460.00	-4'636.00	-4'570.00	-4'226.00	-1'820.50
B. Forest and Grassland Conversion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Abandonment of Managed Lands		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
D. CO <sub>2</sub> Emissions and Removals from Soil		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Waste</b>	<b>0.00</b>	<b>1'317.00</b>	<b>1'327.00</b>	<b>1'337.00</b>	<b>1'336.00</b>	<b>1'336.00</b>	<b>1'346.00</b>	<b>1'365.00</b>	<b>1'375.00</b>	<b>1'394.00</b>	<b>1'407.00</b>	<b>1'393.00</b>
A. Solid Waste Disposal on Land		137.00	137.00	137.00	136.00	136.00	136.00	135.00	135.00	134.00	134.00	133.00
B. Waste-water Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Waste Incineration		1'180.00	1'190.00	1'200.00	1'200.00	1'200.00	1'210.00	1'230.00	1'240.00	1'260.00	1'273.00	1'260.00
D. Other		NO	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>NO</b>
<b>Total Emissions/Removals with LUCF<sup>(4)</sup></b>	<b>0.00</b>	<b>41'231.52</b>	<b>43'039.86</b>	<b>42'632.67</b>	<b>39'245.34</b>	<b>38'606.05</b>	<b>39'514.68</b>	<b>39'767.01</b>	<b>38'924.77</b>	<b>40'263.13</b>	<b>40'616.69</b>	<b>42'032.93</b>
<b>Total Emissions without LUCF<sup>(4)</sup></b>	<b>0.00</b>	<b>44'419.52</b>	<b>46'296.86</b>	<b>45'987.67</b>	<b>43'570.34</b>	<b>42'946.05</b>	<b>43'824.68</b>	<b>44'227.01</b>	<b>43'560.77</b>	<b>44'833.13</b>	<b>44'842.69</b>	<b>43'853.43</b>
<b>Memo Items:</b>												
<b>International Bunkers</b>	<b>0.00</b>	<b>3'206.80</b>	<b>3'115.20</b>	<b>3'327.70</b>	<b>3'457.50</b>	<b>3'558.40</b>	<b>3'773.80</b>	<b>3'914.80</b>	<b>4'064.40</b>	<b>4'248.70</b>	<b>4'538.20</b>	<b>4'742.80</b>
Aviation		3'206.80	3'115.20	3'327.70	3'457.50	3'558.40	3'773.80	3'914.80	4'064.40	4'248.70	4'538.20	4'742.80
Marine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>CO<sub>2</sub> Emissions from Biomass</b>		<b>1.57</b>	<b>1.78</b>	<b>1.76</b>	<b>1.81</b>	<b>1.73</b>	<b>1.89</b>	<b>2.10</b>	<b>1.99</b>	<b>1.95</b>	<b>1.92</b>	<b>1.87</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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	(Gg)											
<b>Total Emissions</b>	<b>0.00</b>	<b>241.86</b>	<b>242.90</b>	<b>240.51</b>	<b>238.36</b>	<b>234.21</b>	<b>233.23</b>	<b>230.06</b>	<b>226.86</b>	<b>221.95</b>	<b>218.59</b>	<b>216.77</b>
<b>1. Energy</b>	<b>0.00</b>	<b>21.825</b>	<b>21.737</b>	<b>20.995</b>	<b>20.337</b>	<b>19.518</b>	<b>18.886</b>	<b>18.780</b>	<b>18.321</b>	<b>18.441</b>	<b>18.139</b>	<b>17.755</b>
A. Fuel Combustion (Sectoral Approach)	0.00	7.190	7.278	6.832	6.570	6.247	6.111	6.105	5.746	5.966	5.764	5.483
1. Energy Industries		0.049	0.069	0.075	0.063	0.069	0.075	0.070	0.072	0.085	0.070	0.060
2. Manufacturing Industries and Construction		0.252	0.274	0.259	0.274	0.274	0.291	0.353	0.365	0.430	0.396	0.397
3. Transport		3.908	3.688	3.382	3.129	2.936	2.732	2.542	2.368	2.467	2.332	2.130
4. Other Sectors		2.645	2.909	2.772	2.757	2.612	2.661	2.784	2.581	2.622	2.601	2.528
5. Other		0.335	0.338	0.343	0.347	0.356	0.352	0.356	0.360	0.363	0.366	0.369
B. Fugitive Emissions from Fuels	0.00	14.635	14.459	14.163	13.767	13.271	12.775	12.675	12.575	12.475	12.375	12.272
1. Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and Natural Gas		14.635	14.459	14.163	13.767	13.271	12.775	12.675	12.575	12.475	12.375	12.272
<b>2. Industrial Processes</b>	<b>0.00</b>	<b>0.433</b>	<b>0.425</b>	<b>0.419</b>	<b>0.412</b>	<b>0.409</b>	<b>0.402</b>	<b>0.406</b>	<b>0.412</b>	<b>0.419</b>	<b>0.427</b>	<b>0.435</b>
A. Mineral Products		0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
B. Chemical Industry		0.39	0.39	0.38	0.38	0.37	0.37	0.37	0.38	0.39	0.39	0.40
C. Metal Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Other Production		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
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	NO
<b>3. Solvent and Other Product Use</b>												
<b>4. Agriculture</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>143.60</b>	<b>139.47</b>	<b>137.43</b>	<b>137.01</b>
A. Enteric Fermentation		130.20	131.68	130.67	129.85	127.34	127.66	126.00	124.08	120.34	118.48	118.01
B. Manure Management		20.79	20.84	20.61	20.44	20.01	19.75	19.35	19.52	19.12	18.95	19.00
C. Rice Cultivation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural Soils		NO	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	NO
F. Field Burning of Agricultural Residues		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry</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>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
A. Changes in Forest and Other Woody Biomass Stocks		NO	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	NO
C. Abandonment of Managed Lands		NO	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	NO
E. Other		NO	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>	<b>61.57</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	59.90
B. Waste-water Handling		1.35	1.38	1.40	1.43	1.46	1.48	1.51	1.54	1.57	1.60	1.58
C. Waste Incineration		0.36	0.34	0.32	0.29	0.27	0.25	0.22	0.19	0.15	0.12	0.09
D. Other		NO	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>NO</b>
<b>Memo Items:</b>												
<b>International Bunkers</b>	<b>0.00</b>	<b>0.26</b>	<b>0.24</b>	<b>0.22</b>	<b>0.28</b>	<b>0.27</b>	<b>0.22</b>	<b>0.23</b>	<b>0.21</b>	<b>0.21</b>	<b>0.22</b>	<b>0.23</b>
Aviation		0.26	0.24	0.22	0.28	0.27	0.22	0.23	0.21	0.21	0.22	0.23
Marine		NO	NO	NO	NO	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>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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	(Gg)											
<b>Total Emissions</b>	<b>0.00</b>	<b>11.354</b>	<b>11.460</b>	<b>11.524</b>	<b>11.566</b>	<b>11.600</b>	<b>11.576</b>	<b>11.571</b>	<b>11.483</b>	<b>11.698</b>	<b>11.673</b>	<b>11.642</b>
<b>1. Energy</b>	<b>0.00</b>	<b>1.239</b>	<b>1.398</b>	<b>1.547</b>	<b>1.646</b>	<b>1.770</b>	<b>1.858</b>	<b>1.936</b>	<b>1.972</b>	<b>2.263</b>	<b>2.333</b>	<b>2.289</b>
A. Fuel Combustion (Sectoral Approach)	0.00	1.239	1.398	1.547	1.646	1.770	1.858	1.936	1.972	2.263	2.333	2.289
1. Energy Industries		0.005	0.007	0.007	0.003	0.004	0.004	0.005	0.004	0.006	0.003	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	0.041	0.040
3. Transport		0.993	1.140	1.295	1.405	1.538	1.622	1.692	1.747	2.017	2.094	2.064
4. Other Sectors		0.185	0.193	0.193	0.188	0.179	0.181	0.184	0.166	0.181	0.168	0.156
5. Other		0.029	0.029	0.029	0.028	0.028	0.028	0.028	0.028	0.028	0.027	0.027
B. Fugitive Emissions from Fuels	0.00	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1. Solid Fuels		NO	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	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>	<b>0.312</b>
A. Mineral Products		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
B. Chemical Industry		0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
C. Metal Production		0.01	0.01	0.01	NO	NO	NO	NO	NO	NO	NO	NO
D. Other Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
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	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>0.391</b>
<b>4. Agriculture</b>	<b>0.00</b>	<b>9.231</b>	<b>9.159</b>	<b>9.055</b>	<b>8.986</b>	<b>8.875</b>	<b>8.743</b>	<b>8.648</b>	<b>8.512</b>	<b>8.423</b>	<b>8.315</b>	<b>8.318</b>
A. Enteric Fermentation		NO	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	1.360	1.359
C. Rice Cultivation		NO	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	6.955	6.959
E. Prescribed Burning of Savannas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field Burning of Agricultural Residues		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
G. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>5. Land-Use Change and Forestry</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>NO</b>
A. Changes in Forest and Other Woody Biomass Stocks		NO	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	NO
C. Abandonment of Managed Lands		NO	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	NO
E. Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>6. Waste</b>	<b>0.00</b>	<b>0.219</b>	<b>0.231</b>	<b>0.243</b>	<b>0.253</b>	<b>0.267</b>	<b>0.280</b>	<b>0.291</b>	<b>0.301</b>	<b>0.312</b>	<b>0.323</b>	<b>0.332</b>
A. Solid Waste Disposal on Land		NO	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	0.072
C. Waste Incineration		0.157	0.168	0.179	0.188	0.201	0.213	0.222	0.231	0.241	0.250	0.260
D. Other		NO	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>NO</b>
<b>Memo Items:</b>												
<b>International Bunkers</b>	<b>0.00</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.12</b>	<b>0.12</b>	<b>0.13</b>	<b>0.14</b>	<b>0.14</b>	<b>0.15</b>
Aviation		0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.15
Marine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<b>Multilateral Operations</b>		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
<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  
2000  
Submission 2002

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	(Gg)											
<b>Emissions of HFCs<sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>0.02</b>	<b>1.03</b>	<b>5.68</b>	<b>18.89</b>	<b>45.57</b>	<b>91.69</b>	<b>143.05</b>	<b>198.92</b>	<b>285.24</b>	<b>369.84</b>	<b>479.98</b>
HFC-23		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000
HFC-32		0.00000	0.00000	0.00000	0.00001	0.00004	0.00012	0.00033	0.00082	0.00166	0.00279	0.00406
HFC-41		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
HFC-43-10mee		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000
HFC-125		0.00000	0.00000	0.00009	0.00055	0.00149	0.00323	0.00586	0.00911	0.01258	0.01818	0.02561
HFC-134		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
HFC-134a		0.00002	0.00079	0.00385	0.01147	0.02687	0.05291	0.07854	0.10487	0.15462	0.19087	0.23895
HFC-152a		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00025	0.00186
HFC-143		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
HFC-143a		0.00000	0.00000	0.00011	0.00064	0.00170	0.00362	0.00640	0.00955	0.01246	0.01754	0.02451
HFC-227ea		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00075	0.00055
HFC-236fa		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
HFC-245ca		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<b>Emissions of PFCs<sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>102.04</b>	<b>83.99</b>	<b>66.39</b>	<b>48.94</b>	<b>31.72</b>	<b>13.58</b>	<b>13.05</b>	<b>19.56</b>	<b>22.31</b>	<b>25.01</b>	<b>65.16</b>
CF <sub>4</sub>		0.01375	0.01130	0.00890	0.00650	0.00410	0.00160	0.00150	0.00151	0.00166	0.00158	0.00766
C <sub>2</sub> F <sub>6</sub>		0.00137	0.00113	0.00089	0.00065	0.00041	0.00016	0.00015	0.00085	0.00104	0.00139	0.00147
C <sub>3</sub> F <sub>8</sub>		0.00001	0.00002	0.00005	0.00010	0.00019	0.00024	0.00027	0.00027	0.00028	0.00028	0.00027
C <sub>4</sub> F <sub>10</sub>		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
c-C <sub>4</sub> F <sub>8</sub>		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
C <sub>5</sub> F <sub>12</sub>		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
C <sub>6</sub> F <sub>14</sub>		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<b>Emissions of SF<sub>6</sub><sup>(5)</sup> - CO<sub>2</sub> equivalent (Gg)</b>	<b>0.00</b>	<b>112.53</b>	<b>113.55</b>	<b>114.57</b>	<b>79.36</b>	<b>55.94</b>	<b>90.17</b>	<b>91.20</b>	<b>165.45</b>	<b>158.62</b>	<b>155.50</b>	<b>187.76</b>
SF <sub>6</sub>		0.00471	0.00475	0.00479	0.00332	0.00234	0.00377	0.00382	0.00692	0.00664	0.00651	0.00786

<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.

Chemical	GWP
HFCs	
HFC-23	11700
HFC-32	650
HFC-41	150
HFC-43-10mee	1300
HFC-125	2800
HFC-134	1000
HFC-134a	1300
HFC-152a	140
HFC-143	300
HFC-143a	3800
HFC-227ea	2900
HFC-236fa	6300
HFC-245ca	560
PFCs	
CF <sub>4</sub>	6500
C <sub>2</sub> F <sub>6</sub>	9200
C <sub>3</sub> F <sub>8</sub>	7000
C <sub>4</sub> F <sub>10</sub>	7000
c-C <sub>4</sub> F <sub>8</sub>	8700
C <sub>5</sub> F <sub>12</sub>	7500
C <sub>6</sub> F <sub>14</sub>	7400
SF <sub>6</sub>	23900

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

Switzerland  
2000  
Submission 2002

GREENHOUSE GAS EMISSIONS	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	CO <sub>2</sub> equivalent (Gg)											
Net CO <sub>2</sub> emissions/removals	0.00	41'231.52	43'039.86	42'632.67	39'245.34	38'606.05	39'514.68	39'767.01	38'924.77	40'263.13	40'616.69	42'032.93
CO <sub>2</sub> emissions (without LUCF) <sup>(6)</sup>	0.00	44'419.52	46'296.86	45'987.67	43'570.34	42'946.05	43'824.68	44'227.01	43'560.77	44'833.13	44'842.69	43'853.43
CH <sub>4</sub>	0.00	5'079.04	5'100.95	5'050.68	5'005.61	4'918.31	4'897.80	4'831.25	4'764.08	4'660.89	4'590.46	4'552.20
N <sub>2</sub> O	0.00	3'519.77	3'552.49	3'572.41	3'585.37	3'596.09	3'588.48	3'586.92	3'559.75	3'626.50	3'618.63	3'609.13
HFCs	0.00	0.02	1.03	5.68	18.89	45.57	91.69	143.05	198.92	285.24	369.84	479.98
PFCs	0.00	102.04	83.99	66.39	48.94	31.72	13.58	13.05	19.56	22.31	25.01	65.16
SF <sub>6</sub>	0.00	112.53	113.55	114.57	79.36	55.94	90.17	91.20	165.45	158.62	155.50	187.76
<b>Total (with net CO<sub>2</sub> emissions/removals)</b>	<b>0.00</b>	<b>50'044.92</b>	<b>51'891.87</b>	<b>51'442.40</b>	<b>47'983.51</b>	<b>47'253.68</b>	<b>48'196.40</b>	<b>48'432.48</b>	<b>47'632.52</b>	<b>49'016.68</b>	<b>49'376.13</b>	<b>50'927.15</b>
<b>Total (without CO<sub>2</sub> from LUCF) <sup>(6)</sup></b>	<b>0.00</b>	<b>53'232.92</b>	<b>55'148.87</b>	<b>54'797.40</b>	<b>52'308.51</b>	<b>51'593.68</b>	<b>52'506.40</b>	<b>52'892.48</b>	<b>52'268.52</b>	<b>53'586.68</b>	<b>53'602.13</b>	<b>52'747.65</b>

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year <sup>(1)</sup>	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	CO <sub>2</sub> equivalent (Gg)											
1. Energy	0.00	40'581.96	42'825.60	42'835.10	40'623.59	39'837.73	40'828.99	41'636.45	40'974.84	42'315.68	42'294.80	41'170.19
2. Industrial Processes	0.00	3'685.26	3'340.08	3'030.02	2'800.57	2'969.54	2'922.81	2'572.54	2'696.30	2'784.05	2'901.07	3'211.56
3. Solvent and Other Product Use	0.00	107.57	109.74	111.91	114.39	116.56	118.73	119.04	119.66	120.28	120.90	121.21
4. Agriculture	0.00	6'032.47	6'042.28	5'983.93	5'941.75	5'845.53	5'805.94	5'733.17	5'654.39	5'539.90	5'463.74	5'455.79
5. Land-Use Change and Forestry <sup>(7)</sup>	0.00	-3'188.00	-3'257.00	-3'355.00	-4'325.00	-4'340.00	-4'310.00	-4'460.00	-4'636.00	-4'570.00	-4'226.00	-1'820.50
6. Waste	0.00	2'825.66	2'831.17	2'836.45	2'828.21	2'824.32	2'829.93	2'831.28	2'823.34	2'826.78	2'821.63	2'788.91
7. Other	0.00	NO	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.

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

**Party:** Switzerland **Year:** 2000

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

General info:	Date of submission:	15.04.02		
	Base years:	1990	PFCs, HFCs, SF <sub>6</sub> :	1990
	Year covered in the submission:	2000		
	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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	0.09	<input checked="" type="checkbox"/>

<b>Recalculation:</b>		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
	CO <sub>2</sub>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CH <sub>4</sub>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	N <sub>2</sub> O	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	HFCs, PFCs, SF <sub>6</sub>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Explanations:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recalculation tables for all recalculated years:			<input checked="" type="checkbox"/>	1990-1999		
	Full CRF for the recalculated base year:			<input type="checkbox"/>	will be submitted in summer 2002.		

<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"/>		<input type="checkbox"/>	
	Production of Halocarbons/SF <sub>6</sub> :	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
	Consumption of Halocarbons/SF <sub>6</sub> :	Actual	Potential	Actual	Potential	Actual	Potential
	Potential/Actual emission ratio:	2.15		1.60		1.41	

Reference to National Inventory Report and/or national inventory web site:	<a href="http://www.umwelt-schweiz.ch/buwal/de/fachgebiete/fg_klima/index.html">http://www.umwelt-schweiz.ch/buwal/de/fachgebiete/fg_klima/index.html</a> (english version will follow end of July 2002)
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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.