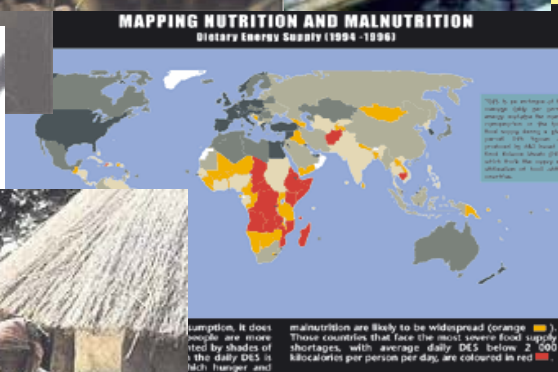
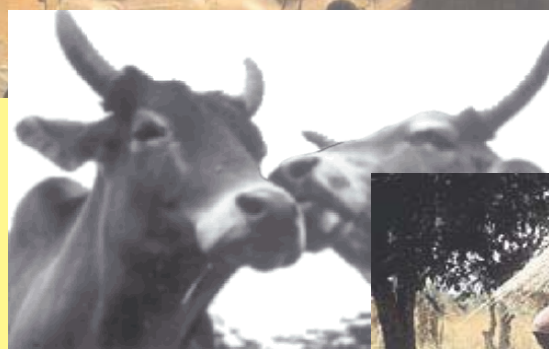
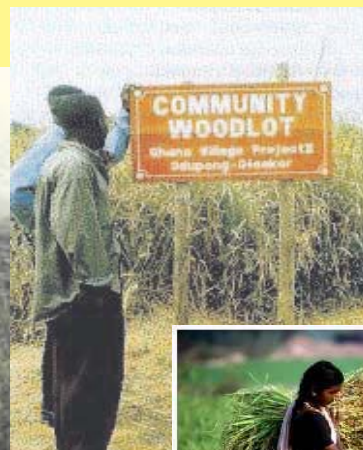


# Summary of Food and Agricultural Statistics 2003



*Summary of Food and Agricultural Statistics*

**2003**

**Food and Agriculture Organization of the United Nations  
Rome 2003**

This publication arose out of a request by the Director-General of FAO to compile a broad range of statistics pertaining to world food and agriculture showing, wherever appropriate, the differences between the developed and developing countries, the continents and the regions. Initially the related tables were compiled and regularly updated for the personal use of the Director-General. However, as the information presented has aroused general interest, it has been decided to publish the tables in the form of a document. It is hoped that managers and policy makers dealing in international issues relating to food and agriculture will find the document useful.

The tables are organized in sets corresponding to 10 sections entitled as follows:

- 1) Agriculture Macro-Economic Indicators
- 2) Population and Labour Force
- 3) Land Use and Agricultural Inputs
- 4) Water Resources and Irrigation
- 5) Agricultural Production and Trade
- 6) Forestry Production and Trade
- 7) Fishery Production and Trade
- 8) Food Nutrition and Food Security
- 9) Projections
- 10) Selected Food and Agricultural Indicators by country

However, section 10 relating to food and agricultural indicators consists of only one table presenting information at the country level. The tables in section 1 to 8 and 10 are generally based on the statistics being compiled and disseminated by FAO as well as other international organizations such as the WFP, the UN and its regional bodies, the IMF, the World Bank and its affiliated regional banks, the OECD and the WRI. The tables in section 9 are based on the demographic projections prepared by the UN, ILO, and FAO and the food and agriculture sector projections prepared in connection with the FAO study *Agriculture: Towards 2015/2030*.

The set of tables contained in each section and the related data sources are listed prior to their presentation. With the exception of data from special studies, the sources quoted for the tables based on FAO data are generally FAOSTAT or FAO AQUASTAT. It should however be noted that both of the latter data bases include information obtained through either collaboration or data exchange with other international organizations. For example the demographic estimates and projections are based on inter-agency collaborative work involving the UN Population Division, the ILO and FAO. The data on food aid are obtained from WFP and the data on water resources emanate from the Water Resources Institute (WRI).

The data presented in sections 1 to 8 generally refer to the most recent period for which data are available and, wherever pertinent, for selected historical periods also in order to give an idea of the past changes. Growth rates also are given wherever relevant. In the case of the projections in section 9, the time horizon varies depending on the underlying studies. As regards the last table on selected food and agriculture indicators (section 10), which is by country, the figures refer to the most recent period for which data are available.

Following the ten sets of tables are five annexes providing explanatory information. Thus Annex I explains the symbols and the acronyms used in the tables; Annex II includes the list of sources used for the compilation of this document; Annex III gives the country composition of regional aggregates shown in the tables; Annex IV refers to the concepts and definitions relating to the data presented and finally Annex V provides technical notes on certain measures and indicators.

The document has been prepared by the Socio-Economic Statistics and Analysis Service of the FAO Statistics Division, Economic and Social Department. The preparation of the various tables has been facilitated by access to the statistics maintained in the FAO databases not only by the Statistics Division but also other units in FAO in particular the Fishery Information, Data and Statistics Unit, Fisheries Department; the Water Resources, Development and Management Service of the Land and Water Development Division, Agriculture Department; and the Forestry Planning and Statistics Branch, Forestry Policy and Planning Division, Forestry Department.

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# **AGRICULTURE MACRO-ECONOMIC INDICATORS**

## 1.1 Gross National Income (GNI), Gross National Product (GDP) and Agriculture Value Added

World/Region	GDP			Agriculture Value Added			GNI per caput Atlas method		
	(US\$ billion)			(US\$ billion)			(current US\$)		
	1980	1990	2001	1980	1990	2001	1980	1990	2001
<b>WORLD</b>	<b>10 960</b>	<b>21 815</b>	<b>31 121</b>	<b>887</b>	<b>1 171</b>	<b>1 214</b>	<b>2 606</b>	<b>4 001</b>	<b>5 120</b>
<b>Developed countries</b>	<b>8 365</b>	<b>18 255</b>	<b>24 720</b>	<b>310</b>	<b>618</b>	<b>466</b>	<b>9 754</b>	<b>14 726</b>	<b>19 047</b>
Industrialized countries	8 135	17 134	23 861	288	438	405	10 921	20 292	26 782
Transition economies	231	1 122	859	22	180	62	1 962	2 827	1 907
<b>Developing countries</b>	<b>2 279</b>	<b>3 537</b>	<b>6 562</b>	<b>374</b>	<b>543</b>	<b>976</b>	<b>704</b>	<b>856</b>	<b>1 353</b>
Latin America and the Caribbean	762	1 154	1 996	73	91	126	2 109	2 314	3 633
Near East and North Africa	607	723	912	59	101	99	2 469	2 275	2 289
Sub-Saharan Africa	186	183	202	48	52	54	508	374	298
East and Southeast Asia	487	1 065	2 831	112	186	558	368	650	1 517
South Asia	229	399	605	81	111	138	264	378	451
Oceania developing	7	11	13	1	2	1	1 426	1 880	1 685
North America developing	1	2	3	...	...	...	8 536	...	46 808
<b>Continental groupings</b>									
Africa	395	468	552	65	80	88	788	721	669
Asia	2 289	5 200	8 415	280	469	833	965	1 766	2 389
Latin America	713	1 073	1 840	68	86	119	2 154	2 334	3 652
Caribbean	49	81	156	4	5	7	1 572	2 068	3 392
North America	3 038	6 327	10 763	85	125	166	12 839	23 077	33 070
Oceania	196	365	432	14	15	16	8 928	13 502	14 535
Europe	3 964	8 279	9 125	168	380	213	8 363	10 766	12 888

Note: Figures for World have been taken directly from World Bank tables and may not tally with totals of Developed and Developing countries/Regions where more than one data source has been used.



## 1.2 Agriculture Value Added Growth and Share in total GDP

World/Region	Share of Agriculture Value Added in Total GDP (%)			Growth Rate (%)			
	1980	1990	2001	GDP		Agriculture Value Added	
				1980-1990	1990-2001	1980-1990	1990-2001
<b>WORLD</b>	<b>8.1</b>	<b>5.4</b>	<b>3.9</b>	<b>3.3</b>	<b>2.7</b>	<b>2.6</b>	<b>1.8</b>
<b>Developed countries</b>	<b>4.0</b>	<b>3.6</b>	<b>2.0</b>	<b>3.1</b>	<b>2.2</b>	<b>1.7</b>	<b>0.5</b>
Industrialized countries	3.8	2.7	1.8	3.2	2.4	1.8	1.1
Transition economies	14.1	17.2	8.0	2.0	- 1.7	1.0	- 3.0
<b>Developing countries</b>	<b>17.4</b>	<b>16.8</b>	<b>16.1</b>	<b>3.5</b>	<b>4.7</b>	<b>3.2</b>	<b>3.0</b>
Latin America and the Caribbean	10.2	8.7	6.9	1.8	3.1	2.2	2.3
Near East and North Africa	9.9	15.0	11.3	1.1	2.9	2.9	1.9
Sub-Saharan Africa	27.3	30.4	28.7	2.4	2.9	2.2	3.4
East and Southeast Asia	24.7	19.3	21.3	7.2	6.8	3.9	3.5
South Asia	38.8	30.8	25.0	5.6	5.5	3.2	3.1
Oceania developing	30.8	14.4	25.0	3.2	2.4	1.7	3.1
North America developing	...	...	...	1.5	2.3	...	...
<b>Continental groupings</b>							
Africa	17.5	18.3	17.2	2.0	2.7	2.9	2.8
Asia	12.6	9.3	10.3	4.4	2.9	3.0	2.1
Latin America	10.3	8.9	7.1	1.7	3.1	2.3	2.4
Caribbean	9.7	7.2	4.9	3.0	2.8	0.5	0.2
North America	3.0	2.1	1.6	3.5	3.4	3.1	3.3
Oceania	7.8	4.6	3.8	3.2	3.7	3.2	3.0
Europe	4.7	5.1	2.6	2.5	1.7	1.3	0.3

Note: The growth rates are calculated using production data at constant prices in U.S. dollars. Regional sub-totals are obtained by summing values for countries with a complete time series of data for the period. Countries with an incomplete time series are excluded from the aggregate.

**1.3 Development Commitments to Agriculture (Broad Definition) by Donors**  
**Total Commitment by Donors (US\$ million)**

	1996	1997	1998	1999	2000	2001*
<b>Current Prices</b>						
<b>Total commitments (EAA)</b>	<b>11 642</b>	<b>12 340</b>	<b>12 605</b>	<b>10 700</b>	<b>10 172</b>	<b>9 386</b>
<b>Bilateral</b>	<b>5 203</b>	<b>4 260</b>	<b>4 612</b>	<b>4 150</b>	<b>3 947</b>	<b>3 892</b>
Japan	2 336	1 797	1 856	1 644	1 265	1 768
United States of America	396	389	455	464	519	493
Germany	409	402	467	301	379	362
United Kingdom	166	102	405	508	511	128
Others	1 895	1 569	1 428	1 233	1 272	1 141
<b>Multilateral</b>	<b>6 439</b>	<b>8 080</b>	<b>7 993</b>	<b>6 550</b>	<b>6 225</b>	<b>5 494</b>
World Bank	3 100	4 227	4 682	3 034	2 494	
IBRD	1 853	2 795	3 285	1 603	986	
IDA	1 247	1 431	1 397	1 431	1 508	
IFAD	405	392	431	415	407	
Regional Development Banks	1 991	2 302	1 656	2 083	2 153	
OPEC multilateral	286	430	507	309	453	
UNDP/CGIAR	491	508	518	508	518	
FAO	166	222	200	200	200	
<b>1995 Constant Prices</b>						
<b>Total commitments (EAA)</b>	<b>12 084</b>	<b>13 834</b>	<b>14 478</b>	<b>12 012</b>	<b>11 904</b>	<b>11 402</b>
<b>Bilateral</b>	<b>5 401</b>	<b>4 776</b>	<b>5 297</b>	<b>4 659</b>	<b>4 619</b>	<b>4 727</b>
Japan	2 425	2 015	2 132	1 846	1 481	2 147
United States of America	412	436	523	520	607	599
Germany	425	451	537	338	444	440
United Kingdom	172	114	465	570	598	155
Others	1 967	1 759	1 641	1 385	1 489	1 386
<b>Multilateral</b>	<b>6 684</b>	<b>9 059</b>	<b>9 181</b>	<b>7 353</b>	<b>7 285</b>	<b>6 675</b>
World Bank	3 217	4 738	5 378	3 406	2 919	
IBRD	1 923	3 134	3 773	1 800	1 154	
IDA	1 294	1 605	1 605	1 606	1 765	
IFAD	421	439	495	466	476	
Regional Development Banks	2 066	2 581	1 902	2 339	2 520	
OPEC multilateral	297	482	583	347	530	
UNDP/CGIAR	510	570	595	570	606	
FAO	172	249	230	225	234	
<b>Total Assistance</b>	<b>106 423</b>	<b>116 338</b>	<b>118 498</b>	<b>117 229</b>	<b>97 012</b>	<b>100 428</b>
<b>Share of EAA in total Assistance (%)</b>	<b>10.9</b>	<b>10.6</b>	<b>10.6</b>	<b>9.1</b>	<b>10.5</b>	<b>9.3</b>

\* Provisional data.

Note: The constant price series has been derived by deflating the current price series using the DAC aggregate deflator (DAC Report, 2001).

#### 1.4 Development Commitments to Agriculture (Broad Definition) by Main Purposes

	Amount in Current Prices (US\$ million)						Share in total commitments (%)					
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000
	<b>Total commitments</b>	<b>11 042</b>	<b>11 642</b>	<b>12 340</b>	<b>12 605</b>	<b>10 700</b>	<b>10 172</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Agriculture Services	469	402	220	725	761	521	4.2	3.5	1.8	5.8	7.1	5.1
Agro-Industries	166	419	93	88	18	47	1.5	3.6	0.8	0.7	0.2	0.5
Agriculture Others	1 789	2 132	3 018	2 049	3 005	1 810	16.2	18.3	24.5	16.3	28.1	17.8
Crop Production	283	522	232	225	160	372	2.6	4.5	1.9	1.8	1.5	3.7
Environment	861	602	701	1 248	827	744	7.8	5.2	5.7	9.9	7.7	7.3
Fishery	211	605	312	307	163	305	1.9	5.2	2.5	2.4	1.5	3.0
Forestry	364	619	748	494	180	667	3.3	5.3	6.1	3.9	1.7	6.6
Inputs	669	525	262	253	183	148	6.1	4.5	2.1	2.0	1.7	1.5
Land and Water	2 571	2 809	2 684	1 589	1 628	1 654	23.3	24.1	21.7	12.6	15.2	16.3
Livestock	176	295	123	141	43	218	1.6	2.5	1.0	1.1	0.4	2.1
Manufacturing of Inputs	101	0	0	0	49	0	0.9	0.0	0.0	0.0	0.5	0.0
Regional and												
River Development	471	177	353	599	393	186	4.3	1.5	2.9	4.8	3.7	1.8
Research/Training												
Extension	1 170	972	800	1 729	602	572	10.6	8.3	6.5	13.7	5.6	5.6
Rural Development	1 740	1 563	2 794	3 158	2 688	2 926	15.8	13.4	22.6	25.1	25.1	28.8

#### 1.5 Main Recipient Countries of Development Commitments to Agriculture, 2000

Country	Amount in Current Prices (US\$ million)
China	1 202
Indonesia	541
Viet Nam	528
Brazil	487
India	429
Philippines	416
Bangladesh	322
Russian Federation	290
Pakistan	250
Tunisia	212

#### 1.6 Gross Fixed Investment in Agriculture

Investment in Developing Countries	Annual average in 1993 US\$ billion			
	Private	Public		Total
		Domestic	Official Development Finance (ODF)	
Present (early 1990s)	106	19	10	135
Future (to 2010)	125	26	15	166
Increment	19	7	5	31
Investment in OECD Countries	Annual average in US\$ billion Purchasing Power Parity (PPP)*			
	Current PPP		Constant 1990 PPP	
1985-87	59		52	
1988-90	69		54	
1991-93	72		49	

\* These PPP estimates are not directly comparable to the above dollar estimates for developing countries.

### 1.7 Share of Government Expenditure on Agriculture in Total Government Expenditure

Region	Country	1990	1993	1996	1997	1998	1999	2000
		(%)						
<b>Latin America and the Caribbean</b>								
	Argentina	1.2	1.3	1.2	1.2	1.2	...	...
	Bahamas	2.0	1.7	1.4	1.4	1.4	1.3	1.4
	Bolivia	1.8	1.4	0.7	1.2	2.2	3.0	3.6
	Brazil	...	0.9	...	1.5	1.5	...	...
	Colombia	6.3	4.0	1.5	1.9	1.3	1.1	...
	Costa Rica	4.1	4.5	1.6	2.7	2.3	2.5	2.8
	Dominican Republic	14.5	12.4	8.9	9.1	9.2	9.8	...
	El Salvador	5.4	3.4	2.9	2.2	2.6	1.5	5.6
	Grenada	...	9.1	...	...	...	...	...
	Guatemala	3.8	3.7	...	...	...	...	...
	Jamaica	...	3.1	1.7	1.5	1.9	1.6	1.7
	Mexico	2.5	3.2	3.0	3.3	2.7	3.1	...
	Nicaragua	1.7	4.4	...	...	...	...	...
	Panama	2.5	2.1	1.5	1.8	0.2	2.0	...
	Paraguay	1.3	5.3	...	...	...	...	...
	St. Vincent	...	4.6	3.2	5.0	2.9	2.9	2.5
	Trinidad and Tobago	...	4.7	...	...	...	...	...
	Uruguay	1.5	1.1	...	...	...	1.5	1.2
<b>Near East and North Africa</b>								
	Bahrain	0.4	0.2	0.7	0.7	0.6	0.5	0.4
	Cyprus	8.6	7.8	6.6	5.6	0.5	...	...
	Egypt	4.7	4.2	4.5	5.3	...	...	...
	Iran, Islamic Rep. of	5.4	4.8	2.2	2.2	1.9	1.8	2.0
	Jordan	2.4	2.7	4.3	3.8	2.8	3.6	3.2
	Kuwait	1.2	0.4	0.6	0.7	0.8	0.7	...
	Lebanon	...	1.0	0.6	0.5	0.7	...	...
	Morocco	5.0	5.3	...	4.4	4.4	3.6	...
	Oman	2.0	2.2	1.7	1.4	1.2	1.3	1.1
	Syrian Arab Republic	11.0	9.9	10.0	9.7	9.0	...	...
	Tunisia	8.0	7.2	8.2	8.2	7.7	7.8	7.7
	Turkey	2.0	1.3	0.8	5.3	2.7	3.3	2.9
	United Arab Emirates	0.7	0.8	0.7	0.7	0.8	0.7	...
	Yemen	2.2	2.6	20.0	26.9	17.5	...	...
<b>Sub-Saharan Africa</b>								
	Botswana	6.1	6.1	8.9	...	...	...	...
	Burkina Faso	5.8	...	...	...	...	...	...
	Burundi	...	6.3	4.8	...	1.5	1.8	...
	Cameroon	4.1	5.1	...	...	2.9	2.8	...
	Ethiopia	6.9	13.0	10.5	...	...	...	...
	Ghana	4.1	3.5	...	...	...	...	...
	Kenya	5.8	6.9	5.0	5.4	5.7	...	...
	Lesotho	9.8	...	...	10.0	5.1	...	...
	Madagascar	14.5	3.7	0.0	0.0	0.0	0.0	...
	Mauritius	7.3	5.9	5.9	4.7	5.1	5.8	4.8

### 1.7 Share of Government Expenditure on Agriculture in Total Government Expenditure

Region	Country	1990	1993	1996	1997	1998	1999	2000
		(%)						
	Seychelles	...	1.9	1.8	1.6	1.6	2.7	5.6
	Sierra Leone	3.0	...	...	...	...	...	...
	Sudan	...	...	...	...	1.1	0.9	...
	Swaziland	...	...	...	...	...	6.2	6.6
	Zambia	2.9	2.2	2.7	4.1	4.4	4.7	...
	Zimbabwe	...	9.0	2.4	2.6	...	...	...
<b>East and Southeast Asia</b>								
	China (Mainland)	5.4	7.2	8.5	8.9	9.7	9.2	...
	Indonesia	7.4	6.6	12.5	7.8	6.6	3.9	...
	Korea, Rep. of	9.5	7.2	8.8	8.0	...	...	...
	Malaysia	5.4	4.7	3.9	3.8	...	...	...
	Mongolia	...	2.7	2.1	2.1	1.7	0.2	1.7
	Myanmar	9.3	7.5	13.1	13.4	14.4	12.7	...
	Philippines	6.4	8.4	7.2	6.5	6.1	5.5	5.7
	Singapore	0.7	0.3	0.2	0.3	0.2	0.2	0.7
	Thailand	9.7	9.6	9.4	8.0	5.6	5.6	8.0
<b>South Asia</b>								
	Bhutan	14.5	18.0	18.7	14.9	8.9	8.9	8.0
	India	11.5	9.6	8.7	8.9	8.4	5.7	...
	Maldives	1.9	9.4	4.9	1.1	1.0	0.9	1.3
	Nepal	8.5	10.5	7.2	6.1	5.8	5.3	4.5
	Sri Lanka	5.8	5.1	4.3	3.6	4.8	4.5	4.3
<b>Oceania</b>								
	Fiji Islands	6.7	4.7	3.6	...	...	...	...
	Papua New Guinea	7.2	6.8	3.8	2.7	...	2.6	...

## **POPULATION AND LABOUR FORCE**

## 2.1 Total and Agricultural Population and Related Growth Rates

World/Region	Population						Average annual rate of growth	
	(million)			Share in total World (%)			(%)	
	1980	1990	2001	1980	1990	2001	1980-1990	1990-2001
<b>Population</b>								
<b>WORLD</b>	<b>4 429.7</b>	<b>5 254.8</b>	<b>6 134.1</b>				<b>1.7</b>	<b>1.4</b>
<b>Developed countries</b>	<b>1 171.1</b>	<b>1 255.9</b>	<b>1 318.1</b>	<b>26.4</b>	<b>23.9</b>	<b>21.5</b>	<b>0.7</b>	<b>0.4</b>
Industrialized countries	789.0	844.3	907.2	17.8	16.1	14.8	0.7	0.7
Transition economies	382.1	411.6	411.0	8.6	7.8	6.7	0.7	0.0
<b>Developing countries</b>	<b>3 258.6</b>	<b>3 998.9</b>	<b>4 816.0</b>	<b>73.6</b>	<b>76.1</b>	<b>78.5</b>	<b>2.0</b>	<b>1.7</b>
Latin America and the Caribbean	361.3	440.4	526.5	8.2	8.4	8.6	2.0	1.6
Near East and North Africa	240.7	318.7	408.3	5.4	6.1	6.7	2.8	2.3
Sub-Saharan Africa	346.4	464.9	623.5	7.8	8.8	10.2	2.9	2.7
East and Southeast Asia	1 419.0	1 666.9	1 894.2	32.0	31.7	30.9	1.6	1.2
South Asia	886.2	1 101.8	1 355.6	20.0	21.0	22.1	2.2	1.9
Oceania developing	4.9	6.1	7.8	0.1	0.1	0.1	2.3	2.2
North America developing	0.1	0.1	0.1	0.0	0.0	0.0	0.9	0.4
<b>Continental groupings</b>								
Africa	466.9	619.5	812.6	10.5	11.8	13.2	2.8	2.5
Asia	2 575.1	3 097.3	3 720.7	58.1	58.9	60.7	1.8	1.7
Latin America	332.1	406.4	488.2	7.5	7.7	8.0	2.0	1.7
Caribbean	29.2	33.9	38.3	0.7	0.6	0.6	1.5	1.1
North America	255.0	282.6	317.1	5.8	5.4	5.2	1.0	1.0
Oceania	22.5	26.3	30.9	0.5	0.5	0.5	1.6	1.5
Europe	483.5	499.2	726.3	10.9	9.5	11.8	0.3	3.4
<b>Agricultural population</b>								
<b>WORLD</b>	<b>2 215.5</b>	<b>2 438.3</b>	<b>2 575.3</b>					
<b>Developed countries</b>	<b>158.8</b>	<b>133.8</b>	<b>96.7</b>	<b>7.2</b>	<b>5.5</b>	<b>3.8</b>	<b>-1.7</b>	<b>-3.0</b>
Industrialized countries	67.0	51.0	35.4	3.0	2.1	1.4	-2.7	-3.3
Transition economies	91.8	82.8	61.4	4.1	3.4	2.4	-1.0	-2.7
<b>Developing countries</b>	<b>2 056.7</b>	<b>2 304.4</b>	<b>2 478.6</b>	<b>92.8</b>	<b>94.5</b>	<b>96.2</b>	<b>1.1</b>	<b>0.7</b>
Latin America and the Caribbean	127.1	116.7	107.2	5.7	4.8	4.2	-0.9	-0.8
Near East and North Africa	112.3	113.3	119.9	5.1	4.6	4.7	0.1	0.5
Sub-Saharan Africa	257.3	324.5	396.1	11.6	13.3	15.4	2.3	1.8
East and Southeast Asia	976.0	1 094.1	1 122.7	44.1	44.9	43.6	1.1	0.2
South Asia	580.5	651.7	727.8	26.2	26.7	28.3	1.2	1.0
Oceania developing	3.5	4.2	4.9	0.2	0.2	0.2	1.8	1.6
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.3
<b>Continental groupings</b>								
Africa	311.9	376.6	447.7	14.1	15.4	17.4	1.9	1.6
Asia	1 633.9	1 823.0	1 948.0	73.7	74.8	75.6	1.1	0.6
Latin America	117.3	106.7	97.9	5.3	4.4	3.8	-0.9	-0.8
Caribbean	9.8	10.0	9.3	0.4	0.4	0.4	0.1	-0.6
North America	10.3	8.7	6.9	0.5	0.4	0.3	-1.7	-2.1
Oceania	4.7	5.4	6.1	0.2	0.2	0.2	1.3	1.1
Europe	67.0	50.8	59.4	3.0	2.1	2.3	-2.8	1.4

## 2.2 Total and Agricultural Labour Force and Related Growth Rates

World/Region	Labour Force						Average annual rate of growth	
	(million)			Share in total World (%)			(%)	
	1980	1990	2001	1980	1990	2001	1980-1990	1990-2001
<b>Total Labour force</b>								
<b>WORLD</b>	<b>2 050.8</b>	<b>2 497.6</b>	<b>2 993.1</b>				<b>2.0</b>	<b>1.6</b>
<b>Developed countries</b>	<b>559.3</b>	<b>610.2</b>	<b>658.4</b>	<b>27.3</b>	<b>24.4</b>	<b>22.0</b>	<b>0.9</b>	<b>0.7</b>
Industrialized countries	363.5	408.0	448.2	17.7	16.3	15.0	1.2	0.9
Transition economies	195.8	202.3	210.2	9.5	8.1	7.0	0.3	0.3
<b>Developing countries</b>	<b>1 491.5</b>	<b>1 887.4</b>	<b>2 334.7</b>	<b>72.7</b>	<b>75.6</b>	<b>78.0</b>	<b>2.4</b>	<b>1.9</b>
Latin America and the Caribbean	130.5	175.9	227.4	6.4	7.0	7.6	3.0	2.3
Near East and North Africa	82.1	109.1	153.2	4.0	4.4	5.1	2.8	3.1
Sub-Saharan Africa	158.5	208.0	278.1	7.7	8.3	9.3	2.7	2.6
East and Southeast Asia	732.9	922.6	1 074.9	35.7	36.9	35.9	2.3	1.4
South Asia	385.3	469.0	597.5	18.8	18.8	20.0	2.0	2.2
Oceania developing	2.2	2.8	3.6	0.1	0.1	0.1	2.4	2.4
North America developing	0.1	0.1	0.1	0.0	0.0	0.0	1.2	0.7
<b>Continental groupings</b>								
Africa	199.5	262.0	351.7	9.7	10.5	11.7	2.7	2.7
Asia	1 228.6	1 526.8	1 875.4	59.9	61.1	62.7	2.2	1.9
Latin America	119.0	161.6	209.9	5.8	6.5	7.0	3.1	2.4
Caribbean	11.5	14.3	17.5	0.6	0.6	0.6	2.1	1.8
North America	123.9	143.1	163.4	6.0	5.7	5.5	1.4	1.2
Oceania	10.2	12.8	15.4	0.5	0.5	0.5	2.3	1.7
Europe	220.2	233.7	359.8	10.7	9.4	12.0	0.6	3.9
<b>Labour force in agriculture</b>								
<b>WORLD</b>	<b>1 067.1</b>	<b>1 221.2</b>	<b>1 326.6</b>				<b>1.3</b>	<b>0.8</b>
<b>Developed countries</b>	<b>74.5</b>	<b>62.3</b>	<b>46.6</b>	<b>7.0</b>	<b>5.1</b>	<b>3.5</b>	<b>-1.8</b>	<b>-2.6</b>
Industrialized countries	28.7	22.6	15.9	2.7	1.9	1.2	-2.4	-3.2
Transition economies	45.9	39.7	30.7	4.3	3.2	2.3	-1.5	-2.3
<b>Developing countries</b>	<b>992.6</b>	<b>1 158.9</b>	<b>1 280.0</b>	<b>93.0</b>	<b>94.9</b>	<b>96.5</b>	<b>1.5</b>	<b>0.9</b>
Latin America and the Caribbean	44.7	44.7	43.9	4.2	3.7	3.3	0.0	-0.1
Near East and North Africa	41.6	42.9	50.0	3.9	3.5	3.8	0.3	1.4
Sub-Saharan Africa	120.1	149.0	182.1	11.3	12.2	13.7	2.2	1.8
East and Southeast Asia	516.5	622.8	655.3	48.4	51.0	49.4	1.9	0.5
South Asia	268.2	297.7	346.4	25.1	24.4	26.1	1.0	1.4
Oceania developing	1.5	1.9	2.3	0.1	0.2	0.2	1.9	1.7
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>								
Africa	137.4	165.6	200.4	12.9	13.6	15.1	1.9	1.7
Asia	817.1	953.4	1 045.9	76.6	78.1	78.8	1.5	0.8
Latin America	40.8	40.6	39.9	3.8	3.3	3.0	0.0	-0.2
Caribbean	3.9	4.0	4.0	0.4	0.3	0.3	0.3	0.0
North America	4.7	4.1	3.4	0.4	0.3	0.3	-1.3	-1.9
Oceania	2.1	2.5	2.9	0.2	0.2	0.2	1.6	1.2
Europe	31.3	24.2	30.1	2.9	2.0	2.3	-2.6	2.0



### 2.3 Selected Indicators Relating to Rural Population and Agricultural Labour Force

World/Region	1980	1990	2001
	(%)		
<b>Rural population as % of total population</b>			
<b>WORLD</b>	<b>60</b>	<b>57</b>	<b>52</b>
<b>Developed countries</b>	<b>30</b>	<b>28</b>	<b>27</b>
Industrialized countries	25	24	22
Transition economies	40	37	37
<b>Developing countries</b>	<b>71</b>	<b>65</b>	<b>59</b>
Latin America and the Caribbean	35	29	24
Near East and North Africa	54	46	42
Sub-Saharan Africa	79	74	67
East and Southeast Asia	77	70	61
South Asia	78	75	72
Oceania developing	78	77	73
North America developing	12	10	9
<b>Continental groupings</b>			
Africa	73	68	62
Asia	74	68	62
Latin America	34	28	23
Caribbean	46	41	37
North America	26	25	22
Oceania	28	29	26
Europe	29	27	26
<b>Labour force in agriculture as a % of total labour force</b>			
<b>WORLD</b>	<b>52</b>	<b>43</b>	<b>36</b>
<b>Developed countries</b>	<b>13</b>	<b>12</b>	<b>11</b>
Industrialized countries	8	7	6
Transition economies	23	23	22
<b>Developing countries</b>	<b>67</b>	<b>53</b>	<b>43</b>
Latin America and the Caribbean	34	25	20
Near East and North Africa	51	38	27
Sub-Saharan Africa	76	58	43
East and Southeast Asia	70	56	48
South Asia	70	57	45
Oceania developing	72	56	43
North America developing	4	3	3
<b>Continental groupings</b>			
Africa	69	52	39
Asia	67	54	44
Latin America	34	25	19
Caribbean	34	27	22
North America	4	3	3
Oceania	21	17	14
Europe	14	13	9

### 2.3 Selected Indicators Relating to Rural Population and Agricultural Labour Force

World/Region	1980	1990	2001
	(%)		
<b>Females in agricultural labour force as a % of total agricultural labour force</b>			
<b>WORLD</b>	<b>42</b>	<b>43</b>	<b>44</b>
<b>Developed countries</b>	<b>43</b>	<b>38</b>	<b>36</b>
Industrialized countries	36	35	35
Transition economies	47	41	37
<b>Developing countries</b>	<b>42</b>	<b>43</b>	<b>44</b>
Latin America and the Caribbean	17	17	17
Near East and North Africa	41	43	50
Sub-Saharan Africa	47	47	48
East and Southeast Asia	45	46	47
South Asia	40	37	39
Oceania developing	43	43	45
North America developing	0	0	0
<b>Continental groupings</b>			
Africa	46	47	48
Asia	43	43	44
Latin America	16	16	16
Caribbean	25	26	28
North America	22	23	26
Oceania	38	40	43
Europe	43	41	35

## **LAND USE AND AGRICULTURAL INPUTS**

### 3.1 Total Area, Arable Land and Land under Permanent Crops

World/Region	Year	Total Area	Arable Land	Land under Permanent Crops	Arable Land over Total Area	Total Area	Arable Land	Land under Permanent Crops
					(million ha)			
<b>WORLD</b>								
	1980	13 436	1 342.8	96.7	10.0			
	1990	13 436	1 391.6	113.6	10.4			
	2001	13 431	1 401.7	130.4	10.4			
<b>Developed countries</b>								
	1980	5 652	651.3	24.1	11.5	42.1	48.5	24.9
	1990	5 652	649.5	23.6	11.5	42.1	46.7	20.8
	2001	5 640	613.5	24.0	10.9	42.0	43.8	18.4
Industrialized countries								
	1980	3 294	378.8	16.4	11.5	24.5	28.2	16.9
	1990	3 294	379.8	16.6	11.5	24.5	27.3	14.6
	2001	3 294	366.8	16.9	11.1	24.5	26.2	13.0
Transition economies								
	1980	2 357	272.5	7.7	11.6	17.5	20.3	8.0
	1990	2 357	269.7	7.0	11.4	17.5	19.4	6.1
	2001	2 345	246.7	7.1	10.5	17.5	17.6	5.4
<b>Developing countries</b>								
	1980	7 785	691.5	72.6	8.9	57.9	51.5	75.1
	1990	7 785	742.1	90.0	9.5	57.9	53.3	79.2
	2001	7 792	788.2	106.4	10.1	58.0	56.2	81.6
Latin America and the Caribbean								
	1980	2 058	127.8	17.7	6.2	15.3	9.5	18.3
	1990	2 058	134.5	18.2	6.5	15.3	9.7	16.0
	2001	2 058	149.3	20.3	7.3	15.3	10.7	15.6
Near East and North Africa								
	1980	1 267	82.4	8.3	6.5	9.4	6.1	8.6
	1990	1 267	86.4	10.1	6.8	9.4	6.2	8.9
	2001	1 267	86.0	11.7	6.8	9.4	6.1	8.9
Sub-Saharan Africa								
	1980	2 334	124.3	15.8	5.3	17.4	9.3	16.4
	1990	2 334	130.9	18.1	5.6	17.4	9.4	16.0
	2001	2 334	143.7	20.9	6.2	17.4	10.3	16.0
East and Southeast Asia								
	1980	1 588	161.6	22.9	10.2	11.8	12.0	23.7
	1990	1 588	193.7	34.4	12.2	11.8	13.9	30.3
	2001	1 588	213.1	42.1	13.4	11.8	15.2	32.3
South Asia								
	1980	449	195.1	7.0	43.5	3.3	14.5	7.2
	1990	449	196.0	8.2	43.7	3.3	14.1	7.2
	2001	449	195.5	10.4	43.6	3.3	13.9	7.9
Oceania developing								
	1980	55	0.4	0.9	0.7	0.4	0.0	1.0
	1990	55	0.5	1.0	0.9	0.4	0.0	0.9
	2001	55	0.6	1.1	1.0	0.4	0.0	0.9

### 3.1 Total Area, Arable Land and Land under Permanent Crops

World/Region	Year	Total Area	Arable Land	Land under Permanent Crops	Arable Land over Total Area	Total Area	Arable Land	Land under Permanent Crops
		(million ha)			(%)	Share in total World (%)		
North America developing								
	1980	34	0.0	...	0.0	0.3	...	...
	1990	34	0.0	...	0.0	0.3	...	...
	2001	41	0.0	...	0.0	0.3	...	...
<b>Continental groupings</b>								
Africa								
	1980	3 031	158.4	19.8	5.2	22.6	11.8	20.4
	1990	3 031	167.1	22.9	5.5	22.6	12.0	20.2
	2001	3 031	182.3	26.3	6.0	22.6	13.0	20.2
Asia								
	1980	2 768	422.6	35.7	15.3	20.6	31.5	36.9
	1990	2 768	458.5	49.3	16.6	20.6	32.9	43.4
	2001	3 187	508.6	61.4	16.0	23.7	36.3	47.0
Caribbean								
	1980	23	4.9	1.7	20.8	0.2	0.4	1.7
	1990	23	5.4	1.8	23.2	0.2	0.4	1.6
	2001	23	5.9	1.9	25.1	0.2	0.4	1.5
Latin America								
	1980	2 035	122.9	16.1	6.0	15.1	9.2	16.6
	1990	2 035	129.1	16.3	6.3	15.1	9.3	14.4
	2001	2 035	143.4	18.4	7.0	15.1	10.2	14.1
North America								
	1980	1 994	234.3	2.0	11.8	14.8	17.5	2.1
	1990	1 994	231.6	2.2	11.6	14.8	16.6	1.9
	2001	2 001	221.0	2.2	11.0	14.9	15.8	1.7
Oceania								
	1980	856	47.1	2.0	5.5	6.4	3.5	2.1
	1990	856	50.9	2.6	5.9	6.4	3.7	2.3
	2001	856	52.4	3.3	6.1	6.4	3.7	2.5
Europe								
	1980	488	126.3	14.4	25.9	3.6	9.4	14.9
	1990	488	124.6	14.0	25.5	3.6	9.0	12.3
	2001	2 298	288.1	16.9	12.5	17.1	20.6	13.0

Note: Data in 2001 exclude the portion of land under Azov Sea and White Sea

### 3.2 Land Availability per Person Ratios

World/Region	Year	Per Person Ratio		
		In total Population	Dependent on Agriculture	Economically Active in Agriculture
(ha)				
<b>WORLD</b>	1980	0.32	0.65	1.35
	1990	0.29	0.62	1.23
	2001	0.25	0.59	1.15
<b>Developed countries</b>	1980	0.58	4.25	9.06
	1990	0.54	5.03	10.80
	2001	0.48	6.59	13.68
Industrialized countries	1980	0.50	5.90	13.77
	1990	0.47	7.77	17.51
	2001	0.42	10.85	24.11
Transition economies	1980	0.73	3.05	6.11
	1990	0.67	3.34	6.98
	2001	0.62	4.13	8.27
<b>Developing countries</b>	1980	0.23	0.37	0.77
	1990	0.21	0.36	0.72
	2001	0.19	0.36	0.70
Latin America and the Caribbean	1980	0.40	1.14	3.26
	1990	0.35	1.31	3.42
	2001	0.32	1.58	3.86
Near East and North Africa	1980	0.38	0.81	2.18
	1990	0.30	0.85	2.25
	2001	0.24	0.81	1.96
Sub-Saharan Africa	1980	0.40	0.54	1.17
	1990	0.32	0.46	1.00
	2001	0.26	0.42	0.90
East and Southeast Asia	1980	0.13	0.14	0.13
	1990	0.19	0.21	0.23
	2001	0.36	0.37	0.39
South Asia	1980	0.23	0.35	0.75
	1990	0.19	0.31	0.69
	2001	0.15	0.28	0.59
Oceania developing	1980	0.27	0.39	0.86
	1990	0.25	0.37	0.82
	2001	0.22	0.34	0.75
North America developing	1980	0.04	1.00	2.00
	1990	0.03	1.00	2.00
	2001	0.03	2.00	2.00

### 3.2 Land Availability per Person Ratios

World/Region	Year	Per Person Ratio		
		In total Population	Dependent on Agriculture	Economically Active in Agriculture
(ha)				
<b>Continental groupings</b>				
Africa	1980	0.38	0.57	1.30
	1990	0.31	0.50	1.15
	2001	0.26	0.47	1.04
Asia	1980	0.18	0.28	0.56
	1990	0.16	0.28	0.53
	2001	0.15	0.29	0.54
Caribbean	1980	0.22	0.67	1.67
	1990	0.22	0.73	1.81
	2001	0.20	0.84	1.94
Latin America	1980	0.42	1.18	3.41
	1990	0.36	1.36	3.58
	2001	0.33	1.65	4.05
North America	1980	0.93	22.96	50.34
	1990	0.83	26.85	56.51
	2001	0.70	32.20	66.61
Oceania	1980	2.18	10.34	23.04
	1990	2.03	9.86	21.34
	2001	1.80	9.08	19.39
Europe	1980	0.29	2.10	4.50
	1990	0.28	2.73	5.72
	2001	0.42	5.14	10.14

Note: Land availability refers to arable land plus land under permanent crops

### 3.3 Change in Forest Cover

World/Region	Land Area	Forest Cover		Annual Change	
	2000	1990	2000	1990-2000	
	(million ha)			(million ha) (% per year)	
<b>WORLD</b>	<b>13 063.9</b>	<b>3 963.4</b>	<b>3 869.5</b>	<b>-9.4</b>	<b>-0.2</b>
<b>Developed countries</b>	<b>5 461.2</b>	<b>1 716.1</b>	<b>1 729.1</b>	<b>1.3</b>	<b>0.1</b>
Industrialized countries	3 152.4	787.0	792.0	0.5	0.1
Transition economies	2 308.8	929.0	937.2	0.8	0.1
<b>Developing countries</b>	<b>7 602.6</b>	<b>2 247.4</b>	<b>2 140.3</b>	<b>-10.7</b>	<b>-0.5</b>
Latin America and the Caribbean	2 019.5	1 011.0	964.4	-4.7	-0.5
Near East and North Africa	1 252.6	28.2	28.8	0.1	0.2
Sub-Saharan Africa	2 282.0	687.7	634.8	-5.3	-0.8
East and Southeast Asia	1 547.3	406.4	400.5	-0.6	-0.1
South Asia	412.9	77.6	76.7	-0.1	-0.1
Oceania developing	54.1	36.4	35.1	-0.1	-0.3
North America developing	34.2	0.0	0.0	0.0	0.0
<b>Continental groupings</b>					
Africa	2 978.4	702.5	649.9	-5.3	-0.8
Asia	3 084.7	551.4	547.8	-0.4	-0.1
Latin America	1 996.7	1 005.5	958.6	-4.7	-0.5
Caribbean	22.8	5.6	5.7	0.0	0.2
North America	1 872.2	466.7	470.6	0.4	0.1
Oceania	849.1	201.3	197.6	-0.4	-0.2
Europe	2 260.0	1 030.5	1 039.3	0.9	0.1



### 3.4 World Fertilizer Production and Consumption

Fertilizer	Production			Consumption		
	1980/1981	1990/1991	2001/02	1980/1981	1990/1991	2001/02
(million MT)						
Nitrogen	63	82	86	61	77	82
Phosphate	35	39	34	32	36	33
Potash	27	27	26	24	25	23
<b>Total</b>	<b>125</b>	<b>148</b>	<b>146</b>	<b>117</b>	<b>138</b>	<b>138</b>

### 3.5 Leading Fertilizer Producing and Consuming Countries

Producers	Production		Consumers	Consumption	
	(million MT)	% of World production		(million MT)	% of World consumption
2001/2002					
China	30	21	China	35	25
United States of America	19	13	United States of America	20	14
India	15	10	India	17	12
Russian Federation	12	8	Brazil	7	5
Canada	12	8	France	4	3
<b>Rest of the World</b>	<b>58</b>	<b>40</b>	<b>Rest of the World</b>	<b>55</b>	<b>41</b>

### 3.6 Fertilizer Consumption to Arable Land Ratio (kg nutrients/ha)

Region/Country	1980/1981	1990/1991	2001/2002
<b>WORLD</b>	<b>87</b>	<b>99</b>	<b>98</b>
<b>Developed countries</b>	<b>120</b>	<b>112</b>	<b>83</b>
Industrialized countries	131	118	118
Transition economies	104	104	31
<b>Developing countries</b>	<b>56</b>	<b>87</b>	<b>110</b>
Latin America and the Caribbean	59	59	85
Near East and North Africa	45	67	71
Sub-Saharan Africa	8	10	9
East and Southeast Asia	120	180	210
South Asia	37	77	112
Oceania developing	59	73	50
North America developing	83	0	25
<b>Continental groupings</b>			
Africa	20	22	22
Asia	73	122	144
Latin America	56	56	86
Caribbean	132	137	66
North America	100	89	100
Oceania	35	30	65
Europe	247	212	78

### 3.7 Production of Pesticides (insecticides, fungicides, disinfectants, etc.)

Country	1990	1995	1999	Country	1990	1995	1999
(thousand MT)				(thousand MT)			
<b>Total</b>	<b>2 318</b>	<b>2 045</b>	<b>2 254</b>	<b>Europe</b>	<b>1 377</b>	<b>1 051</b>	<b>1 006</b>
Africa	60	75	85	Albania	9	0	0
Algeria	8	...	...	Austria	17	12	12
Burundi	4	...	...	Belgium <sup>3/</sup>	100	3	6
Egypt	21	25	...	Bulgaria	10	8	8
Kenya	3	1	...	Croatia	...	7	...
South Africa <sup>1/</sup>	23	36	...	Czech Republic	...	22	19
Tanzania, United Rep	1	...	...	Czechoslovakia (former)	17	...	...
				Denmark <sup>4/</sup>	...	18	19
				Finland	14	14	4
<b>North America</b>	<b>127</b>	<b>169</b>	<b>228</b>	France	326	...	...
Mexico	127	169	228	Germany <sup>5/</sup>	342	128	...
				Greece <sup>6/</sup>	7	11	...
<b>South America</b>	<b>88</b>	<b>85</b>	<b>88</b>	Hungary	56	19	15
Brazil	64	...	...	Lithuania	...	1	0
Colombia	...	21	...	Poland	20	24	30
Ecuador	...	2	...	Portugal	25	15	21
				Romania	24	15	4
<b>Asia</b>	<b>461</b>	<b>665</b>	<b>847</b>	Russian Federation	...	16	10
China	228	417	625	Serbia and Montenegro	...	7	6
Cyprus	...	0	...	Slovakia	...	...	3
Indonesia	19	18	...	Slovenia	...	6	1
Korea, Rep. of	182	168	173	Spain <sup>7/</sup>	83	91	99
Turkey	23	32	26	Sweden	...	9	2
Uzbekistan	...	15	...	T.F.Yug.Rep.Macedonia	...	0	0
Viet Nam <sup>2/</sup>	9	16	19	Ukraine	...	4	2
				United Kingdom	...	306.9	...
<b>USSR (former)</b>	<b>205</b>	<b>...</b>	<b>...</b>				

<sup>1/</sup> Excluding products usually measured in units of volume.

<sup>2/</sup> Insecticides only

<sup>3/</sup> Incomplete coverage

<sup>4/</sup> Sales

<sup>5/</sup> Excluding disinfectants

<sup>6/</sup> Insecticides for household use in 1990

<sup>7/</sup> Including insecticides for household use in 1990

Note: Global and regional totals refer to the countries shown only, and include estimates for missing data.

### 3.8 Imports and Exports of Pesticides

World/Region	Value (US\$ million)		
	1980	1990	2001
<b>Imports</b>			
<b>WORLD</b>	<b>4 467</b>	<b>8 281</b>	<b>10 994</b>
<b>Developed countries</b>	<b>2 938</b>	<b>6 097</b>	<b>7 100</b>
Industrialized countries	2 308	4 937	5 935
Transition economies	630	1 159	1 164
<b>Developing countries</b>	<b>1 529</b>	<b>2 184</b>	<b>3 894</b>
Latin America and the Caribbean	406	667	1 708
Near East and North Africa	313	449	635
Sub-Saharan Africa	400	306	362
East and Southeast Asia	334	645	1 019
South Asia	65	102	153
Oceania developing	12	14	16
North America developing	1	1	2
<b>Continental groupings</b>			
Africa	567	484	593
Asia	...	...	2 034
Latin America	82	159	169
Caribbean	324	508	1 538
North America	449	511	1 242
Oceania	45	88	262
Europe	...	...	5 155
<b>Exports</b>			
<b>WORLD</b>	<b>4 063</b>	<b>7 433</b>	<b>10 461</b>
<b>Developed countries</b>	<b>3 775</b>	<b>6 839</b>	<b>8 417</b>
Industrialized countries	3 633	6 656	8 243
Transition economies	142	183	174
<b>Developing countries</b>	<b>288</b>	<b>594</b>	<b>2 043</b>
Latin America and the Caribbean	112	218	695
Near East and North Africa	8	23	57
Sub-Saharan Africa	33	22	24
East and Southeast Asia	130	270	993
South Asia	6	60	274
Oceania developing	0	0	0
North America developing	...	...	...
<b>Continental groupings</b>			
Africa	54	60	147
Asia	...	...	1 717
Latin America	8	3	17
Caribbean	104	214	679
North America	569	1 179	1 687
Oceania	10	27	106
Europe	...	...	6 109

### 3.9 Agricultural Tractors and Harvesters/Threshers in Use per 1000 ha of Arable Land

World/Region	Agricultural Tractors			Harvesters Threshers		
	1980	1990	2001	1980	1990	2001
	(number/1000 ha)					
<b>WORLD</b>	<b>16.3</b>	<b>19.2</b>	<b>19.2</b>	<b>2.6</b>	<b>2.9</b>	<b>2.9</b>
<b>Developed countries</b>	<b>28.5</b>	<b>32.7</b>	<b>31.7</b>	<b>5.1</b>	<b>5.5</b>	<b>4.8</b>
Industrialized countries	38.2	42.0	41.7	6.5	7.2	6.6
Transition economies	15.1	19.5	16.9	3.1	3.1	2.1
<b>Developing countries</b>	<b>4.8</b>	<b>7.3</b>	<b>9.4</b>	<b>0.3</b>	<b>0.6</b>	<b>1.5</b>
Latin America and the Caribbean	8.6	12.0	11.8	1.0	1.1	1.1
Near East and North Africa	9.1	15.0	19.7	0.5	0.5	0.6
Sub-Saharan Africa	0.9	1.1	1.1	0.0	0.0	0.0
East and Southeast Asia	5.5	5.7	9.0	0.4	1.3	4.4
South Asia	2.6	6.5	9.5	0.0	0.0	0.0
Oceania developing	18.0	19.3	18.1	0.9	0.9	0.8
North America developing	29.0	33.8	32.5	...	...	...
<b>Continental groupings</b>						
Africa	2.8	3.2	2.9	0.3	0.3	0.2
Asia	8.2	12.2	15.0	2.3	3.3	4.1
Latin America	16.9	17.1	16.1	1.2	1.3	1.3
Caribbean	8.3	11.8	11.7	1.0	1.1	1.1
North America	23.0	24.0	25.0	3.6	3.5	3.5
Oceania	9.1	7.9	7.7	1.3	1.2	1.1
Europe	67.0	83.1	38.2	6.4	6.4	3.5

# **WATER RESOURCES AND IRRIGATION**

#### 4.1 Large Rivers of the World

Continent/River	Water volume (km <sup>3</sup> /year)	Area of fresh water	Length total water
<b>Africa</b>			
Congo	1 460	3 820	4 370
Niger	320	2 090	4 160
Nile	202	2 870	6 670
<b>North and Central America</b>			
Mississippi	580	3 220	5 985
St. Lawrence	439	1 290	3 060
Mackenzie	350	1 800	4 240
Columbia	267	669	1 950
Yukon	207	852	3 000
<b>South America</b>			
Amazon	6 930	6 915	6 280
Orinoco	914	1 000	2 740
Paraná	725	2 970	4 700
Magdalena	260	260	1 530
<b>Asia</b>			
Ganges (with Brahmaputra)	1 400	1 730	3 000
Yangzijiang	995	1 800	5 520
Yenisei	610	2 580	3 490
Mekong	510	810	4 500
Irrawaddy	486	410	2 300
Chutsyan	363	437	2 130
Indus	220	960	3 180
Salween	211	325	2 820
<b>Europe</b>			
Danube	214	817	2 860
<b>Former USSR</b>			
Lena	532	2 490	4 400
Ob	395	2 990	3 650
Amur	355	1 855	2 820
Volga	254	1 360	3 350

Note: Refers to rivers having mean annual runoff greater than 200 km<sup>3</sup>.

#### 4.2 Distribution of World Water Resources, 2000

Location	Water volume (10 <sup>3</sup> km <sup>3</sup> )	As % of fresh water	As % of total water
<b>Total Water</b>	<b>1 385 984.5</b>		<b>100</b>
<b>Fresh Water</b>	<b>35 029.1</b>	<b>100</b>	<b>2.5274</b>
Glaciers and ice caps	24 064.0	68.6972	1.7362
Groundwater	10 530.0	30.0607	0.7597
Underground ice (permafrost)	300.0	0.8564	0.0216
Fresh water lakes	91.0	0.2598	0.0066
Vadose (incl. soil moisture)	16.5	0.0471	0.0012
Atmospheric water	12.9	0.0368	0.0009
Swamps	11.5	0.0328	0.0008
Stream channels	2.1	0.0060	0.0002
Biological water	1.1	0.0031	0.0001
<b>Saline Water</b>	<b>1 350 955.4</b>		<b>97.4726</b>
Oceans	1 338 000.0		96.5379
Saline groundwater	12 870.0		0.9286
Saline lakes and inland seas	85.4		0.0062

#### 4.3 Fresh Water Availability, 2000

World/Continent	Internal renewable fresh water resources <sup>a/</sup>		
	Volume per year (km <sup>3</sup> )	% of World fresh water resources	2000 <sup>b/</sup> per caput (1000 m <sup>3</sup> )
<b>WORLD</b>	<b>43 748</b>	<b>100.0</b>	<b>7.2</b>
<b>Developed countries</b>	<b>13 848</b>	<b>31.7</b>	<b>10.5</b>
Industrialized countries	8 801	20.1	9.6
Transition economies	5 047	11.5	12.3
<b>Developing countries</b>	<b>29 901</b>	<b>68.3</b>	<b>6.3</b>
Latin America and the Caribbean	13 570	31.0	26.2
Near East and North Africa	516	1.2	1.3 <sup>c/</sup>
Sub-Saharan Africa	3 856	8.8	6.4 <sup>d/</sup>
East and Southeast Asia	8 720	19.9	4.6
South Asia	1 761	4.0	1.3
Oceania developing	874	2.0	144.0
North America developing	603	1.4	10 767.9
<b>Continental groupings</b>			
Africa	3 950	9.0	5.0
Asia	11 660	26.7	3.2
Latin America	13 477	30.8	28.0
Caribbean	93	0.2	2.6
North America	6 271	14.3	20.0
Oceania	1 693	3.9	58.4
Europe	6 603	15.1	9.0

Note:

<sup>a/</sup> Internal renewable fresh water resources refer to average annual flow of rivers and groundwater generated from endogenous precipitation.

<sup>b/</sup> Volume of internal renewable fresh water resources divided by total population in 2000.

<sup>c/</sup> Not including Sudan

<sup>d/</sup> Including Sudan, excluding South Africa (included in developed countries)

#### 4.4 Fresh Water Utilization by Purpose, 2000

World/Continent	Total volume of fresh water utilization km <sup>3</sup> /year	Fresh water utilization by purpose						Utilization* as % of resources
		Domestic use		Industrial use		Agricultural use		
		km <sup>3</sup> /year	%	km <sup>3</sup> /year	%	km <sup>3</sup> /year	%	
<b>WORLD</b>	<b>3820.3</b>	<b>377.4</b>	<b>9.9</b>	<b>790.7</b>	<b>20.7</b>	<b>2 652.2</b>	<b>69.4</b>	<b>8.9</b>
<b>Developed countries</b>	<b>1239.2</b>	<b>165.2</b>	<b>13.3</b>	<b>509.1</b>	<b>41.1</b>	<b>564.9</b>	<b>45.6</b>	<b>9.0</b>
Industrialized countries	893.5	131.3	14.7	395.6	44.3	366.6	41.0	10.2
Transition economies	345.7	33.9	9.8	113.5	32.8	198.3	57.4	7.1
<b>Developing countries</b>	<b>2581.1</b>	<b>212.2</b>	<b>8.2</b>	<b>281.6</b>	<b>10.9</b>	<b>2 087.3</b>	<b>80.9</b>	<b>8.9</b>
Latin America and the Caribbean	265.1	50.4	19.0	27.4	10.3	187.3	70.7	2.0
Near East and North Africa	322.6	25.1	7.8	19.5	6.0	278.0	86.2	62.5
Sub-Saharan Africa	98.1	6.9	7.0	2.8	2.9	88.3	90.1	2.5
East and Southeast Asia	977.4	71.2	7.3	192.3	19.7	714.0	73.0	11.2
South Asia	917.8	58.7	6.4	39.6	4.3	819.6	89.3	52.1
Oceania developing	0.1	0.0	34.2	0.0	27.6	0.1	38.2	0.0
North America developing	...	...	...	...	...	...	...	...
<b>Continental groupings</b>								
Africa	208.4	17.9	8.6	15.2	7.3	175.2	84.1	5.3
Asia	2377.1	171.5	7.2	270.2	11.4	1 935.5	81.4	20.4
Latin America	251.7	47.3	18.8	26.1	10.4	178.3	70.8	1.9
Caribbean	13.4	3.1	22.9	1.3	9.4	9.1	67.7	15.7
North America	525.3	69.8	13.3	252.3	48.0	203.2	38.7	9.3
Oceania	26.2	4.6	17.6	2.6	10.1	19.0	72.4	1.6
Europe	418.2	63.2	15.1	223.0	53.3	132.0	31.6	6.5

\* Fresh water utilization as percent of renewable fresh water resources given in Table 4.3.

#### 4.5 Irrigated Land and Percentage of Arable Land that is Irrigated

World/Continent	Irrigated Land					
	Area (1000 ha)			As % of arable land		
	1980	1990	2001	1980	1990	2001
<b>WORLD</b>	<b>210 220</b>	<b>244 984</b>	<b>273 052</b>	<b>15.7</b>	<b>17.6</b>	<b>19.5</b>
<b>Developed countries</b>	<b>58 926</b>	<b>66 286</b>	<b>67 988</b>	<b>9.0</b>	<b>10.2</b>	<b>11.1</b>
Industrialized countries	37 355	39 935	43 226	9.9	10.5	11.8
Transition economies	21 571	26 351	24 762	7.9	9.8	10.0
<b>Developing countries</b>	<b>151 294</b>	<b>178 698</b>	<b>205 064</b>	<b>21.9</b>	<b>24.1</b>	<b>26.0</b>
Latin America and the Caribbean	13 811	16 794	18 613	10.8	12.5	12.5
Near East and North Africa	17 982	24 864	27 808	21.8	28.8	32.3
Sub-Saharan Africa	3 980	4 885	5 221	3.2	3.7	3.6
East and Southeast Asia	59 722	65 624	74 605	37.0	33.9	35.0
South Asia	55 798	66 529	78 813	28.6	33.9	40.3
Oceania developing	1	2	4	0.2	0.4	0.7
North America developing	...	...	...	...	...	...
<b>Continental groupings</b>						
Africa	9 491	11 235	12 813	6.0	6.7	7.0
Asia	132 377	155 009	190 385	31.3	33.8	37.4
Caribbean	1 074	1 269	1 308	22.0	23.3	22.2
Latin America	12 737	15 525	17 305	10.4	12.0	12.1
North America	21 178	21 618	23 220	9.0	9.3	10.5
Oceania	1 684	2 114	2 674	3.6	4.2	5.1
Europe	14 479	17 414	25 347	11.5	14.0	8.8



## **AGRICULTURAL PRODUCTION AND TRADE**

### 5.1 Average Annual Rate of Growth of Total Agricultural Production

World/Region	Total Agricultural Production		
	1970-1980	1980-1990	1990-2001
	(%)		
<b>WORLD</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>
<b>Developed countries</b>	<b>2.0</b>	<b>1.1</b>	<b>0.2</b>
Industrialized countries	2.2	0.8	1.2
Transition economies	1.5	1.8	-3.2
<b>Developing countries</b>	<b>2.9</b>	<b>3.7</b>	<b>3.8</b>
Latin America and the Caribbean	3.3	2.3	3.1
Near East and North Africa	2.9	3.5	2.4
Sub-Saharan Africa	1.1	2.8	3.0
East and Southeast Asia	3.3	4.6	4.9
South Asia	2.4	3.7	3.0
Oceania developing	2.5	1.1	1.5
North America developing	-2.2	0.6	-1.3
<b>Continental groupings</b>			
Africa	1.3	2.9	2.9
Asia	...	...	4.0
Latin America	3.5	2.3	3.3
Caribbean	1.3	1.1	-1.0
North America	2.7	0.6	2.0
Oceania	1.5	1.7	2.6
Europe	...	...	-0.5

Note: Production aggregates are calculated using constant 1989-91 international commodity prices.

## 5.2 Average Annual Rate of Growth of Food Production and Per Caput Food Production

World/Region	Food Production					
	Total			Per caput		
	1970-1980	1980-1990	1990-2001	1970-1980	1980-1990	1990-2001
	(%)					
<b>WORLD</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>0.7</b>	<b>0.7</b>	<b>1.0</b>
<b>Developed countries</b>	<b>2.1</b>	<b>1.1</b>	<b>0.3</b>	<b>1.3</b>	<b>0.4</b>	<b>-0.2</b>
Industrialized countries	2.3	0.8	1.3	1.5	0.1	0.6
Transition economies	1.5	1.9	-3.1	0.6	1.2	-3.1
<b>Developing countries</b>	<b>3.0</b>	<b>3.7</b>	<b>4.0</b>	<b>0.8</b>	<b>1.6</b>	<b>2.3</b>
Latin America and the Caribbean	3.6	2.4	3.4	1.2	0.4	1.7
Near East and North Africa	3.2	3.6	2.4	0.4	0.8	0.2
Sub-Saharan Africa	1.3	2.8	3.0	-1.5	-0.2	0.3
East and Southeast Asia	3.4	4.6	5.2	1.4	2.9	4.0
South Asia	2.5	3.8	3.1	0.2	1.5	1.2
Oceania developing	2.2	1.1	1.4	-0.2	-1.2	-0.9
North America developing	-2.1	0.7	-1.4	-2.6	-0.2	-1.8
<b>Continental groupings</b>						
Africa	1.5	3.0	2.9	-1.2	0.1	0.4
Asia	...	...	4.2	...	...	2.6
Latin America	3.8	2.5	3.6	1.2	0.5	1.8
Caribbean	1.3	1.2	-1.0	-0.3	-0.3	-2.1
North America	2.8	0.6	2.1	1.8	-0.5	1.0
Oceania	2.3	1.3	3.6	0.7	-0.3	2.1
Europe	...	...	-0.4	...	...	-0.5

Note: Production aggregates are calculated using constant 1989-91 international commodity prices.

### 5.3 Agricultural Production per Agricultural Worker, 1980, 1990 and 2001

World/Region	Agricultural Production (1989-91 Int. \$) per Agricultural Worker		
	1980	1990	2001
<b>WORLD</b>	<b>782</b>	<b>876</b>	<b>1 011</b>
<b>Developed countries</b>	<b>5 787</b>	<b>7 813</b>	<b>10 334</b>
Industrialized countries	10 790	15 210	23 969
Transition economies	2 657	3 589	3 263
<b>Developing countries</b>	<b>406</b>	<b>504</b>	<b>672</b>
Latin America and the Caribbean	2 003	2 525	3 543
Near East and North Africa	948	1 295	1 389
Sub-Saharan Africa	314	330	373
East and Southeast Asia	291	387	609
South Asia	315	416	481
Oceania developing	608	555	518
North America developing	1 305	1 471	1 293
<b>Continental groupings</b>			
Africa	403	435	484
Asia	...	...	617
Latin America	2 078	2 642	3 783
Caribbean	1 223	1 345	1 168
North America	26 891	34 731	51 298
Oceania	9 293	9 472	10 664
Europe	...	...	8 028

Note:

The aggregate "agricultural production", expressed in international dollars, is the sum of crop and livestock commodities after deduction of seed and feed utilization. Practically all products are covered, with the exception of fodder crops. Production quantities are valued by constant 1989-91 average international commodity prices. This method assigns a single constant price to each commodity regardless of the "Agricultural worker" refers to the estimates on agricultural labour force in 1980 and 1990 and the projections for 2001.

#### 5.4 Crop Production per ha of land in use, 1980, 1990 and 2001

World/Region	Crop Production (1989-91 Int. \$) per ha of Land in Use		
	1980	1990	2001
<b>WORLD</b>	<b>372</b>	<b>458</b>	<b>553</b>
<b>Developed countries</b>	<b>345</b>	<b>391</b>	<b>423</b>
Industrialized countries	411	463	554
Transition economies	253	289	225
<b>Developing countries</b>	<b>396</b>	<b>512</b>	<b>646</b>
Latin America and the Caribbean	363	435	507
Near East and North Africa	324	429	530
Sub-Saharan Africa	187	238	298
East and Southeast Asia	692	829	1 062
South Asia	325	456	579
Oceania developing	613	574	610
North America developing	109	155	147
<b>Continental groupings</b>			
Africa	216	266	330
Asia	...	...	778
Latin America	356	431	513
Caribbean	505	514	380
North America	324	384	478
Oceania	99	129	198
Europe	...	...	433

**Notes:**

The aggregate "crop production", expressed in international dollars, is the sum of crop commodities after deduction of seed utilization. Practically all products are covered, with the exception of fodder crops. Production quantities are valued by constant 1989-91 average international commodity prices. This method assigns a single constant price to each commodity regardless of the country where it was produced.

"Land in use" refers to arable land and land under permanent crops.

**5.5 Value of Total Merchandise Trade, Agriculture Trade and Share of Agriculture Trade in Total Merchandise Trade**

World/Region	Total Merchandise			Agricultural Products			Share of Agricultural Products in Total Merchandise		
	1980	1990	2001	1980	1990	2001	1980	1990	2001
	(US\$ billion)						(%)		
<b>Imports</b>									
<b>WORLD</b>	<b>2 041.3</b>	<b>3 607.9</b>	<b>6 283.6</b>	<b>255.4</b>	<b>353.2</b>	<b>435.7</b>	<b>12.5</b>	<b>9.8</b>	<b>6.9</b>
<b>Developed countries</b>	<b>1 563.1</b>	<b>2 829.7</b>	<b>4 542.6</b>	<b>186.4</b>	<b>266.6</b>	<b>304.4</b>	<b>11.9</b>	<b>9.4</b>	<b>6.7</b>
Industrialized countries	1 412.9	2 634.8	4 262.3	158.7	239.2	278.4	11.2	9.1	6.5
Transition economies	150.2	194.9	280.2	27.7	27.5	26.0	18.4	14.1	9.3
<b>Developing countries</b>	<b>478.2</b>	<b>778.1</b>	<b>1 741.0</b>	<b>69.0</b>	<b>86.5</b>	<b>131.3</b>	<b>14.4</b>	<b>11.1</b>	<b>7.5</b>
Latin America and the Caribbean	125.6	120.4	318.5	14.6	14.8	28.9	11.6	12.3	9.1
Near East and North Africa	125.8	143.8	239.5	21.6	25.8	31.2	17.2	17.9	13.0
Sub-Saharan Africa	46.3	41.2	58.5	7.1	6.7	9.2	15.4	16.3	15.8
East and Southeast Asia	152.9	428.5	1 036.6	21.7	34.4	53.1	14.2	8.0	5.1
South Asia	23.3	38.1	76.3	3.2	3.9	7.8	13.8	10.3	10.3
Oceania developing	3.7	5.2	6.7	0.6	0.8	1.0	17.2	14.9	14.2
North America developing	0.7	1.1	4.9	0.1	0.2	0.1	18.7	14.7	3.0
<b>Continental groupings</b>									
Africa	94.7	95.1	135.5	15.2	16.0	19.6	16.0	16.8	14.5
Asia	421.6	823.7	1 701.6	57.8	85.6	121.4	13.7	10.4	7.1
Latin America	92.0	97.1	289.8	11.6	11.3	25.5	12.6	11.7	8.8
Caribbean	33.6	23.2	28.6	3.0	3.4	3.4	9.0	14.8	11.8
North America	301.1	634.3	1 406.6	23.1	34.4	57.1	7.7	5.4	4.1
Oceania	26.8	54.0	81.3	1.9	3.2	5.0	7.2	5.9	6.1
Europe	1 002.5	1 759.3	2 640.2	125.1	179.5	203.7	12.5	10.2	7.7
<b>Exports</b>									
<b>WORLD</b>	<b>2 024.7</b>	<b>3 495.5</b>	<b>6 074.8</b>	<b>234.2</b>	<b>326.2</b>	<b>412.2</b>	<b>11.6</b>	<b>9.3</b>	<b>6.8</b>
<b>Developed countries</b>	<b>1 434.6</b>	<b>2 687.1</b>	<b>4 221.5</b>	<b>161.4</b>	<b>236.6</b>	<b>290.0</b>	<b>11.3</b>	<b>8.8</b>	<b>6.9</b>
Industrialized countries	1 286.6	2 513.5	3 920.3	150.2	226.3	274.0	11.7	9.0	7.0
Transition economies	148.0	173.7	301.2	11.2	10.3	16.0	7.6	5.9	5.3
<b>Developing countries</b>	<b>590.1</b>	<b>808.3</b>	<b>1 853.3</b>	<b>72.8</b>	<b>89.6</b>	<b>122.1</b>	<b>12.3</b>	<b>11.1</b>	<b>6.6</b>
Latin America and the Caribbean	115.2	134.0	269.6	32.0	35.0	52.0	27.8	26.1	19.3
Near East and North Africa	256.7	174.9	321.8	5.4	7.8	11.3	2.1	4.5	3.5
Sub-Saharan Africa	51.2	44.0	64.6	10.2	8.8	8.4	19.9	20.0	13.0
East and Southeast Asia	151.7	425.0	1 125.3	20.2	32.5	42.5	13.3	7.7	3.8
South Asia	12.7	27.0	66.1	4.3	5.0	7.4	33.8	18.6	11.2
Oceania developing	2.3	2.8	4.3	0.7	0.5	0.5	30.8	16.8	11.1
North America developing	0.2	0.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>									
Africa	122.2	105.6	141.3	14.2	12.2	12.5	11.7	11.5	8.9
Asia	511.5	888.6	1 916.2	30.1	46.3	64.7	5.9	5.2	3.4
Latin America	86.4	119.0	252.6	26.0	28.9	50.0	30.1	24.3	19.8
Caribbean	28.9	15.1	17.0	6.0	6.1	2.0	20.9	40.4	11.8
North America	282.0	521.8	992.3	50.0	54.4	74.0	17.7	10.4	7.5
Oceania	28.4	49.6	79.6	13.2	17.0	22.8	46.7	34.3	28.7
Europe	888.8	1 691.7	2 675.9	91.9	158.7	186.1	10.3	9.4	7.0

### 5.6 Average Annual Rate of Growth of Merchandise and Agricultural Trade

World/Region	Total Merchandise		Agricultural Products		Total Merchandise		Agricultural Products	
	1980-1990	1990-2001	1980-1990	1990-2001	1980-1990	1990-2001	1980-1990	1990-2001
	(%)							
	Imports				Exports			
<b>WORLD</b>	<b>5.9</b>	<b>5.2</b>	<b>3.3</b>	<b>1.9</b>	<b>5.6</b>	<b>5.2</b>	<b>3.4</b>	<b>2.1</b>
<b>Developed countries</b>	<b>6.1</b>	<b>4.4</b>	<b>3.6</b>	<b>1.2</b>	<b>6.5</b>	<b>4.2</b>	<b>3.9</b>	<b>1.9</b>
Industrialized countries	6.4	4.5	4.2	1.4	6.9	4.1	4.2	1.8
Transition economies	2.6	3.4	-0.1	-0.5	1.6	5.1	-0.8	4.1
<b>Developing countries</b>	<b>5.0</b>	<b>7.6</b>	<b>2.3</b>	<b>3.9</b>	<b>3.2</b>	<b>7.8</b>	<b>2.1</b>	<b>2.9</b>
Latin America and the Caribbean	-0.4	9.2	0.1	6.3	1.5	6.6	0.9	3.7
Near East and North Africa	1.3	4.7	1.8	1.7	-3.8	5.7	3.7	3.4
Sub-Saharan Africa	-1.2	3.2	-0.6	2.9	-1.5	3.6	-1.4	-0.4
East and Southeast Asia	10.9	8.4	4.7	4.0	10.8	9.3	4.9	2.5
South Asia	5.0	6.5	2.0	6.5	7.8	8.5	1.6	3.6
Oceania developing	3.5	2.4	2.1	1.9	2.3	3.8	-3.7	0.0
North America developing	5.1	14.4	2.6	-0.9	8.3	10.4	-17.6	7.6
<b>Continental groupings</b>								
Africa	0.0	3.3	0.5	1.9	-1.4	2.7	-1.5	0.2
Asia	6.9	6.8	4.0	3.2	5.7	7.2	4.4	3.1
Latin America	0.5	10.5	-0.2	7.7	3.3	7.1	1.1	5.1
Caribbean	-3.6	1.9	1.3	-0.2	-6.3	1.1	0.1	-9.6
North America	7.7	7.5	4.0	4.7	6.3	6.0	0.8	2.8
Oceania	7.2	3.8	5.0	4.2	5.7	4.4	2.5	2.7
Europe	5.8	3.8	3.7	1.2	6.6	4.3	5.6	1.5

### 5.7 Exports of Agricultural Commodities by Major Group

Main Groups	Value (US\$ billion)			% of all groups		
	1980	1990	2001	1980	1990	2001
<b>World</b>						
Live animals	6	9	8	2.6	2.7	2.1
Meat and meat preparations	21	34	46	9.1	10.6	11.1
Dairy products and Eggs	14	21	28	5.8	6.5	6.8
Cereals and preparation	44	46	54	18.9	14.1	13.1
Fruit and Vegetables	27	51	70	11.5	15.6	16.9
Sugar and Honey	17	17	17	7.2	5.2	4.0
Coffee, Tea, Cocoa and Spices	23	21	25	9.9	6.5	6.1
Beverages	11	22	35	4.6	6.7	8.4
Tobacco	8	18	21	3.4	5.6	5.0
Crude materials	39	51	52	16.8	15.6	12.7
Animal and Vegetable Oils	11	13	18	4.6	4.0	4.4
Other agricultural export	13	23	39	5.6	7.0	9.4
<b>All groups</b>	<b>234</b>	<b>326</b>	<b>412</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Developed countries</b>						
Live animals	5	7	7	3.0	2.8	2.4
Meat and meat preparations	18	30	38	11.3	12.6	13.0
Dairy products and Eggs	13	21	26	8.3	8.7	9.0
Cereals and preparation	39	40	42	23.9	16.9	14.5
Fruit and Vegetables	18	33	43	10.9	13.8	15.0
Sugar and Honey	6	8	8	4.0	3.3	2.9
Coffee, Tea, Cocoa and Spices	5	8	12	2.8	3.2	4.2
Beverages	10	20	30	6.3	8.5	10.3
Tobacco	6	14	14	3.8	5.7	4.7
Crude materials	26	34	34	16.0	14.3	11.8
Animal and Vegetable Oils	6	7	8	3.7	2.9	2.9
Other agricultural export	10	17	27	6.1	7.1	9.5
<b>All groups</b>	<b>161</b>	<b>237</b>	<b>290</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Developing countries</b>						
Live animals	1	2	2	1.9	2.3	1.4
Meat and meat preparations	3	5	8	4.1	5.2	6.7
Dairy products and Eggs	0	1	2	0.4	0.7	1.5
Cereals and preparation	6	6	12	7.7	6.6	9.9
Fruit and Vegetables	9	18	26	13.0	20.4	21.6
Sugar and Honey	11	9	8	14.4	10.3	6.8
Coffee, Tea, Cocoa and Spices	19	13	13	25.5	15.0	10.6
Beverages	1	2	5	0.8	1.9	4.0
Tobacco	2	5	7	2.6	5.3	5.7
Crude materials	14	17	18	18.6	18.8	14.8
Animal and Vegetable Oils	5	6	10	6.5	6.8	7.8
Other agricultural export	3	6	11	4.5	6.7	9.2
<b>All groups</b>	<b>73</b>	<b>90</b>	<b>122</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



### 5.8 Quantities of Exports of Selected Agricultural Commodities

	World			Developed countries			Developing countries		
	1980	1990	2001	1980	1990	2001	1980	1990	2001
(thousand MT)									
Wheat	99 632	108 251	125 274	93 948	99 455	105 489	5 684	8 796	19 784
Rice	12 940	12 471	26 762	5 171	4 025	5 132	7 769	8 446	21 630
Coarse Grain	110 620	105 513	110 984	101 437	94 457	90 178	9 182	11 055	20 806
Coffee	3 740	5 036	5 732	185	365	727	3 554	4 671	5 005
Meat	8 102	11 571	22 055	6 931	9 589	17 207	1 170	1 982	4 848
Cocoa Beans	1 065	1 896	2 257	51	39	237	1 014	1 857	2 020

#### Average Annual Rate of Growth

	World		Developed countries		Developing countries	
	1980-1990	1990-2001	1980-1990	1990-2001	1980-1990	1990-2001
(%)						
Wheat	0.8	1.3	0.6	0.5	4.5	7.6
Rice	-0.4	7.2	-2.5	2.2	0.8	8.9
Coarse Grain	-0.5	0.5	-0.7	-0.4	1.9	5.9
Coffee	3.0	1.2	7.0	6.5	2.8	0.6
Meat	3.6	6.0	3.3	5.5	5.4	8.5
Cocoa Beans	5.9	1.6	-2.5	17.7	6.2	0.8

Notes:

Exports of wheat consist of wheat and wheat flour (wheat flour is included in terms of wheat equivalent).

Exports of rice consist of paddy rice, husked rice, milled/husked rice, milled/paddy rice and broken rice, all in milled rice equivalent.

Coarse grain: data refer to all cereals except wheat and rice.

Exports of meat consist of fresh, frozen and chilled meat.

Exports of coffee consist of green coffee, roasted coffee and coffee substitutes containing coffee.

### 5.9 Cereal Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>1 192.7</b>	<b>1 550.2</b>	<b>1 951.6</b>	<b>2 106.9</b>	<b>2.7</b>	<b>2.3</b>	<b>0.7</b>
<b>Developed countries</b>	<b>605.7</b>	<b>784.0</b>	<b>913.4</b>	<b>890.5</b>	<b>2.6</b>	<b>1.5</b>	<b>-0.2</b>
Industrialized countries	378.0	527.0	610.7	637.6	3.4	1.5	0.4
Transition economies	227.8	257.0	302.7	252.9	1.2	1.7	-1.6
<b>Developing countries</b>	<b>587.0</b>	<b>766.2</b>	<b>1 038.3</b>	<b>1 216.4</b>	<b>2.7</b>	<b>3.1</b>	<b>1.5</b>
Latin America and the Caribbean	71.4	88.4	99.1	149.0	2.2	1.1	3.8
Near East and North Africa	45.0	60.8	81.3	86.4	3.0	2.9	0.6
Sub-Saharan Africa	37.8	42.8	58.5	77.4	1.2	3.2	2.6
East and Southeast Asia	284.5	388.8	548.2	585.1	3.2	3.5	0.6
South Asia	148.2	185.4	251.2	318.4	2.3	3.1	2.2
Oceania developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	60.5	72.6	92.9	116.6	1.8	2.5	2.1
Asia	...	...	...	1 001.4	...	...	...
Latin America	70.1	87.0	97.7	147.3	2.2	1.2	3.8
Caribbean	1.3	1.5	1.4	1.7	1.4	-0.4	1.7
North America	215.5	311.5	369.2	368.8	3.8	1.7	0.0
Oceania	13.5	17.2	23.9	40.2	2.4	3.4	4.8
Europe	...	...	...	431.0	...	...	...

### 5.10 Exports and Imports of Cereals and Preparations

World/Region	Quantity (thousand MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>Exports</b>							
<b>WORLD</b>	<b>115 830</b>	<b>226 410</b>	<b>233 174</b>	<b>279 347</b>	<b>6.9</b>	<b>0.3</b>	<b>1.7</b>
<b>Developed countries</b>	<b>94 908</b>	<b>203 356</b>	<b>204 108</b>	<b>215 233</b>	<b>7.9</b>	<b>0.0</b>	<b>0.5</b>
Industrialized countries	85 706	197 053	199 480	195 616	8.7	0.1	-0.2
Transition economies	9 202	6 302	4 629	19 617	-3.7	-3.0	14.0
<b>Developing countries</b>	<b>20 921</b>	<b>23 054</b>	<b>29 066</b>	<b>64 114</b>	<b>1.0</b>	<b>2.3</b>	<b>7.5</b>
Latin America and the Caribbean	12 229	10 736	11 874	27 894	-1.3	1.0	8.1
Near East and North Africa	1 261	1 194	1 966	3 743	-0.5	5.1	6.0
Sub-Saharan Africa	752	474	1 422	578	-4.5	11.6	-7.9
East and Southeast Asia	5 904	8 748	12 391	23 282	4.0	3.5	5.9
South Asia	775	1 892	1 409	8 602	9.3	-2.9	17.9
Oceania developing	1	8	4	15	20.6	-6.7	12.9
North America developing	0	0	0	0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	3 019	4 418	3 784	2 781	3.9	-1.5	-2.8
Asia	7 617	12 516	16 008	39 032	5.1	2.5	8.4
Latin America	12 225	10 691	11 819	27 831	-1.3	1.0	8.1
Caribbean	4	45	55	63	27.1	2.1	1.3
North America	55 463	135 483	116 877	109 249	9.3	-1.5	-0.6
Oceania	8 442	19 989	15 505	19 494	9.0	-2.5	2.1
Europe	22 432	41 111	67 649	80 896	6.2	5.1	1.6
<b>Imports</b>							
<b>WORLD</b>	<b>113 627</b>	<b>223 028</b>	<b>229 861</b>	<b>275 798</b>	<b>7.0</b>	<b>0.3</b>	<b>1.7</b>
<b>Developed countries</b>	<b>71 751</b>	<b>125 700</b>	<b>111 681</b>	<b>108 141</b>	<b>5.8</b>	<b>-1.2</b>	<b>-0.3</b>
Industrialized countries	64 010	80 080	73 308	95 838	2.3	-0.9	2.5
Transition economies	7 741	45 620	38 373	12 303	19.4	-1.7	-9.8
<b>Developing countries</b>	<b>41 877</b>	<b>97 329</b>	<b>118 180</b>	<b>167 657</b>	<b>8.8</b>	<b>2.0</b>	<b>3.2</b>
Latin America and the Caribbean	8 052	26 600	22 423	46 634	12.7	-1.7	6.9
Near East and North Africa	6 893	24 746	41 978	56 607	13.6	5.4	2.8
Sub-Saharan Africa	3 368	8 844	8 942	18 556	10.1	0.1	6.9
East and Southeast Asia	16 154	32 715	39 483	41 996	7.3	1.9	0.6
South Asia	7 229	4 068	4 893	3 181	-5.6	1.9	-3.8
Oceania developing	173	347	453	675	7.2	2.7	3.7
North America developing	8	9	8	8	1.9	-1.4	-0.4
<b>Continental groupings</b>							
Africa	6 582	21 323	28 011	45 147	12.5	2.8	4.4
Asia	44 650	75 912	98 207	109 752	5.5	2.6	1.0
Latin America	6 246	22 741	18 202	41 885	13.8	-2.2	7.9
Caribbean	1 806	3 859	4 221	4 749	7.9	0.9	1.1
North America	1 141	1 912	3 760	11 656	5.3	7.0	10.8
Oceania	216	425	823	1 293	7.0	6.8	4.2
Europe	50 190	65 808	43 617	61 316	2.7	-4.0	3.1

### 5.11 Wheat Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>310.8</b>	<b>440.2</b>	<b>592.3</b>	<b>590.5</b>	<b>3.5</b>	<b>3.0</b>	<b>0.0</b>
<b>Developed countries</b>	<b>216.4</b>	<b>289.4</b>	<b>357.7</b>	<b>326.7</b>	<b>3.0</b>	<b>2.1</b>	<b>-0.8</b>
Industrialized countries	101.7	165.6	214.4	195.4	5.0	2.6	-0.8
Transition economies	114.7	123.8	143.4	131.3	0.8	1.5	-0.8
<b>Developing countries</b>	<b>94.4</b>	<b>150.8</b>	<b>234.6</b>	<b>263.8</b>	<b>4.8</b>	<b>4.5</b>	<b>1.1</b>
Latin America and the Caribbean	11.5	15.1	20.8	24.6	2.7	3.2	1.6
Near East and North Africa	23.9	34.7	46.8	50.7	3.8	3.0	0.7
Sub-Saharan Africa	1.4	1.4	2.0	2.7	0.0	4.0	2.7
East and Southeast Asia	29.8	55.7	99.1	94.2	6.5	5.9	-0.5
South Asia	27.8	44.0	65.9	91.6	4.7	4.1	3.0
Oceania developing	0.0	0.0	0.0	0.0	9.6	-5.0	-21.8
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	8.1	8.9	13.6	18.1	1.0	4.3	2.6
Asia	...	...	...	246.4	...	...	...
Latin America	11.5	15.1	20.8	24.6	2.7	3.2	1.6
Caribbean	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North America	45.8	84.1	106.4	73.8	6.3	2.4	-3.3
Oceania	8.2	11.2	15.3	25.2	3.2	3.2	4.7
Europe	...	...	...	202.4	...	...	...

### 5.12 Leading Wheat Producing Countries, 2001

Country	Production (million MT)	Country	Production (million MT)
China	94	Australia	25
India	70	Germany	23
United States of America	53	Ukraine	21
Russian Federation	47	Canada	21
France	32	Pakistan	19

### 5.13 Leading Wheat Exporting Countries, 2001

Country	Quantity (million MT)	Value (US\$ million)
United States of America	27	3 503
Canada	18	2 607
France	17	1 971

Note: Exports of wheat consist of wheat and wheat flour (wheat flour is included in terms of wheat equivalent).

### 5.14 Rice, Paddy Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>316.4</b>	<b>396.9</b>	<b>518.2</b>	<b>597.8</b>	<b>2.3</b>	<b>2.7</b>	<b>1.3</b>
<b>Developed countries</b>	<b>23.5</b>	<b>23.9</b>	<b>25.7</b>	<b>26.3</b>	<b>0.1</b>	<b>0.7</b>	<b>0.2</b>
Industrialized countries	22.1	21.1	23.4	25.3	-0.5	1.0	0.7
Transition economies	1.4	2.8	2.3	1.0	7.0	-1.7	-7.6
<b>Developing countries</b>	<b>292.9</b>	<b>373.0</b>	<b>492.5</b>	<b>571.5</b>	<b>2.4</b>	<b>2.8</b>	<b>1.4</b>
Latin America and the Caribbean	11.9	16.4	15.6	21.9	3.3	-0.5	3.2
Near East and North Africa	4.5	4.5	5.9	7.9	0.1	2.7	2.6
Sub-Saharan Africa	4.7	6.2	9.2	11.3	2.8	4.0	1.9
East and Southeast Asia	184.4	235.3	312.5	341.6	2.5	2.9	0.8
South Asia	87.3	110.5	149.3	188.7	2.4	3.1	2.2
Oceania developing	0.0	0.0	0.0	0.0	3.1	-1.8	-2.5
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	7.3	8.6	12.3	16.6	1.6	3.7	2.7
Asia	...	...	...	544.7	...	...	...
Latin America	11.2	15.4	14.5	20.8	3.2	-0.6	3.3
Caribbean	0.7	1.0	1.0	1.2	4.1	0.3	0.9
North America	3.8	6.6	7.1	9.8	5.7	0.7	3.0
Oceania	0.3	0.6	1.0	1.7	9.0	3.9	5.2
Europe	...	...	...	3.2	...	...	...

### 5.15 Leading Rice Producing Countries, 2001

Country	Production (million MT)	Country	Production (million MT)
China	179	Thailand	27
India	140	Myanmar	22
Indonesia	50	Philippines	13
Bangladesh	36	Japan	11
Viet Nam	32	Brazil	10

### 5.16 Leading Rice Exporting Countries, 2001

Country	Quantity (million MT)	Value (US\$ million)
Thailand	8	1 578
Viet Nam	4	625
United States of America	3	717

Note: Exports of rice consist of paddy rice, husked rice, milled/husked rice, milled/paddy rice and broken rice, all in milled rice equivalent.

### 5.17 Coarse Grain Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>565.5</b>	<b>713.1</b>	<b>841.1</b>	<b>918.6</b>	<b>2.3</b>	<b>1.7</b>	<b>0.8</b>
<b>Developed countries</b>	<b>365.8</b>	<b>470.7</b>	<b>529.9</b>	<b>537.5</b>	<b>2.6</b>	<b>1.2</b>	<b>0.1</b>
Industrialized countries	254.1	340.3	373.0	416.9	3.0	0.9	1.0
Transition economies	111.7	130.4	157.0	120.6	1.6	1.9	-2.4
<b>Developing countries</b>	<b>199.7</b>	<b>242.4</b>	<b>311.2</b>	<b>381.1</b>	<b>2.0</b>	<b>2.5</b>	<b>1.9</b>
Latin America and the Caribbean	47.9	56.9	62.7	102.5	1.7	1.0	4.6
Near East and North Africa	16.6	21.6	28.6	27.9	2.7	2.8	-0.2
Sub-Saharan Africa	31.7	35.2	47.3	63.4	1.0	3.0	2.7
East and Southeast Asia	70.3	97.8	136.6	149.2	3.4	3.4	0.8
South Asia	33.2	31.0	36.0	38.2	-0.7	1.5	0.5
Oceania developing	0.0	0.0	0.0	0.0	6.6	-0.6	7.6
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	45.1	55.1	66.9	81.9	2.0	2.0	1.9
Asia	...	...	...	210.3	...	...	...
Latin America	47.3	56.4	62.4	101.9	1.8	1.0	4.6
Caribbean	0.6	0.5	0.4	0.6	-2.7	-2.2	3.8
North America	165.9	220.8	255.7	285.2	2.9	1.5	1.0
Oceania	5.1	5.4	7.7	13.3	0.6	3.7	5.0
Europe	...	...	...	225.5	...	...	...

Note: Coarse grain: data refer to all cereals except wheat and rice.

### 5.18 Leading Coarse Grain Producing Countries, 2001

Country	Production (million MT)	Country	Production (million MT)
United States of America	262	France	29
China	125	Mexico	27
Brazil	43	Germany	27
Russian Federation	36	Canada	23
India	34	Argentina	20

Note: Coarse grain: data refer to all cereals except wheat and rice.

### 5.19 Leading Coarse Grain Exporting Countries, 2001

Country	Quantity (million MT)	Value (US\$ million)
United States of America	55	5 554
Argentina	12	1 064
France	11	1 585

Note: Coarse grain: data refer to all cereals except wheat and rice.

## 5.20 Meat Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>100.5</b>	<b>136.6</b>	<b>179.9</b>	<b>237.8</b>	<b>3.1</b>	<b>2.8</b>	<b>2.6</b>
<b>Developed countries</b>	<b>69.8</b>	<b>89.9</b>	<b>104.8</b>	<b>106.0</b>	<b>2.6</b>	<b>1.6</b>	<b>0.1</b>
Industrialized countries	51.1	65.1	74.5	89.2	2.4	1.4	1.6
Transition economies	18.7	24.8	30.3	16.9	2.8	2.0	-5.2
<b>Developing countries</b>	<b>30.6</b>	<b>46.7</b>	<b>75.1</b>	<b>131.7</b>	<b>4.3</b>	<b>4.9</b>	<b>5.2</b>
Latin America and the Caribbean	11.1	15.9	20.2	32.0	3.6	2.4	4.3
Near East and North Africa	2.3	3.2	5.5	7.8	3.2	5.7	3.3
Sub-Saharan Africa	3.5	4.5	5.4	6.8	2.4	1.9	2.1
East and Southeast Asia	10.8	19.4	38.1	76.9	6.0	7.0	6.6
South Asia	2.9	3.7	5.8	8.2	2.7	4.5	3.1
Oceania developing	0.1	0.1	0.1	0.1	3.1	2.5	2.3
North America developing	0.0	0.0	0.0	0.0	-1.7	0.9	-0.9
<b>Continental groupings</b>							
Africa	5.0	6.5	8.7	11.3	2.7	2.9	2.3
Asia	...	...	...	95.0	...	...	...
Latin America	10.6	15.2	19.3	31.0	3.7	2.4	4.4
Caribbean	0.5	0.6	0.8	1.0	2.1	2.9	1.3
North America	23.4	27.0	31.4	42.2	1.4	1.5	2.7
Oceania	3.1	4.0	4.4	5.7	2.4	1.0	2.4
Europe	...	...	...	51.7	...	...	...

Notes:

Data related to total meat production refer to both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats. Pig meat includes bacon and ham in fresh equivalent.

## 5.21 Leading Meat Producing Countries, 2001

Country	Production (million MT)	Country	Production (million MT)
China	65	India	6
United States of America	37	Spain	5
Brazil	15	Canada	5
France	7	Mexico	5
Germany	6	Russian Federation	4

## 5.22 Leading Meat Exporting Countries, 2001

Country	Quantity (million MT)	Value (US\$ million)
United States of America	5	6 679
Brazil	2	2 542
Netherlands	2	2 743

Note: Exports of meat consist of fresh, frozen and chilled meat.

### 5.23 Oil Crop Production (in oil equivalent)

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>35.0</b>	<b>49.3</b>	<b>75.4</b>	<b>112.2</b>	<b>3.5</b>	<b>4.3</b>	<b>3.7</b>
<b>Developed countries</b>	<b>14.9</b>	<b>20.1</b>	<b>25.7</b>	<b>33.8</b>	<b>3.1</b>	<b>2.5</b>	<b>2.5</b>
Industrialized countries	10.3	15.8	20.1	28.7	4.3	2.4	3.3
Transition economies	4.5	4.4	5.6	5.2	-0.4	2.6	-0.8
<b>Developing countries</b>	<b>20.1</b>	<b>29.2</b>	<b>49.7</b>	<b>78.4</b>	<b>3.8</b>	<b>5.5</b>	<b>4.2</b>
Latin America and the Caribbean	3.0	6.5	10.1	17.0	7.9	4.6	4.9
Near East and North Africa	1.0	1.6	1.8	1.8	4.2	1.5	-0.3
Sub-Saharan Africa	3.8	3.7	4.5	6.3	-0.3	1.8	3.1
East and Southeast Asia	7.4	12.7	24.7	43.9	5.6	6.9	5.4
South Asia	4.6	4.4	8.2	8.9	-0.4	6.5	0.7
Oceania developing	0.3	0.4	0.5	0.7	3.5	2.1	3.4
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	4.4	4.5	5.4	7.3	0.3	1.9	2.7
Asia	...	...	...	54.6	...	...	...
Latin America	2.9	6.4	10.0	16.9	8.0	4.6	4.9
Caribbean	0.1	0.1	0.1	0.1	0.8	0.0	1.3
North America	8.0	11.9	13.3	19.5	4.0	1.1	3.6
Oceania	0.3	0.5	0.6	1.5	4.4	2.5	8.5
Europe	...	...	...	12.3	...	...	...

Note: Oil crops, or oilbearing crops, are those crops yielding seeds, nuts or fruits which are used mainly for the extraction of culinary or industrial oils, excluding essential oils.

### 5.24 Leading Soyabean and Groundnut Producing Countries, 2001

Country	Production (million MT)	Country	Production (million MT)
<b>Soyabean</b>		<b>Groundnut (in shell)</b>	
United States of America	79	China	14
Brazil	38	India	7
Argentina	27	Nigeria	3
China	15	United States of America	2
India	6	Indonesia	1

### 5.25 Leading Soyabean and Groundnut Products Exporting Countries, 2001

Country	Value (US\$ million)	Country	Value (US\$ million)
<b>Soyabean &amp; products</b>		<b>Groundnut &amp; products</b>	
United States of America	7111	China	452
Brazil	5297	Argentina	200
Argentina	4701	United States of America	157

Note: Exporting data for soyabean and products refer to oil, cake, sauce, paste, and curd. Exporting data for groundnut and products refer to groundnuts in shell, shelled, oil, cake and prepared groundnuts.



### 5.26 Coffee Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>3 849.6</b>	<b>4 828.9</b>	<b>6 062.8</b>	<b>7 293.4</b>	<b>2.3</b>	<b>2.3</b>	<b>1.7</b>
<b>Developed countries</b>	<b>1.6</b>	<b>0.5</b>	<b>1.0</b>	<b>3.6</b>	<b>-10.3</b>	<b>6.8</b>	<b>12.2</b>
Industrialized countries	1.6	0.5	1.0	3.6	-10.3	6.8	12.2
Transition economies	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Developing countries</b>	<b>3 848.1</b>	<b>4 828.4</b>	<b>6 061.8</b>	<b>7 289.8</b>	<b>2.3</b>	<b>2.3</b>	<b>1.7</b>
Latin America and the Caribbean	2 189.4	2 986.6	3 883.0	4 138.1	3.2	2.7	0.6
Near East and North Africa	4.9	4.7	7.4	11.9	-0.6	4.8	4.4
Sub-Saharan Africa	1 295.0	1 161.3	1 254.0	1 115.5	-1.1	0.8	-1.1
East and Southeast Asia	259.1	458.6	730.7	1 650.3	5.9	4.8	7.7
South Asia	70.9	161.5	125.7	311.3	8.6	-2.5	8.6
Oceania developing	28.7	55.7	61.0	62.7	6.9	0.9	0.2
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	1 295.0	1 161.3	1 254.0	1 115.5	-1.1	0.8	-1.1
Asia	...	...	...	1 973.5	...	...	...
Latin America	2 074.1	2 848.0	3 744.7	4 043.1	3.2	2.8	0.7
Caribbean	115.4	138.6	138.3	95.0	1.9	0.0	-3.4
North America	1.6	.5	1.0	3.6	-10.4	6.9	12.3
Oceania	28.7	55.7	61.0	62.7	6.9	0.9	0.2
Europe	...	...	...	0.0	...	...	...

Note: Production figures for coffee refer to green coffee beans.

### 5.27 Leading Coffee Producing Countries, 2001

Country	Production (thousand MT)	Country	Production (thousand MT)
Brazil	1820	India	301
Viet Nam	841	Guatemala	276
Colombia	656	Côte d'Ivoire	260
Indonesia	527	Ethiopia	228
Mexico	303	Honduras	206

### 5.28 Leading Coffee Exporting Countries, 2001

Country	Quantity (thousand MT (US\$ million))	Value
Brazil	1256	1 213
Viat Nam	931	391
Colombia	560	769

Note: Exports of coffee consist of green coffee, roasted coffee and coffee substitutes containing coffee.

### 5.29 Cocoa Bean Production

World/Region	Production (million MT)				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>1 543.4</b>	<b>1 666.3</b>	<b>2 531.8</b>	<b>3 021.3</b>	<b>0.8</b>	<b>4.3</b>	<b>1.6</b>
<b>Developed countries</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Industrialized countries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Transition economies	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Developing countries</b>	<b>1 543.4</b>	<b>1 666.3</b>	<b>2 531.8</b>	<b>3 021.3</b>	<b>0.8</b>	<b>4.3</b>	<b>1.6</b>
Latin America and the Caribbean	381.4	552.7	555.1	457.5	3.8	0.0	-1.7
Near East and North Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Saharan Africa	1 120.8	1 025.8	1 521.8	2 064.9	-0.9	4.0	2.8
East and Southeast Asia	9.2	50.1	399.6	445.9	18.4	23.1	1.0
South Asia	2.3	4.0	10.2	10.4	5.7	9.8	0.2
Oceania developing	29.6	33.7	45.2	42.6	1.3	3.0	-0.5
North America developing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	1 120.8	1 025.8	1 521.8	2 064.9	-0.9	4.0	2.8
Asia	...	...	...	456.3	...	...	...
Latin America	327.6	513.6	497.9	402.6	4.6	-0.3	-1.9
Caribbean	53.9	39.1	57.2	54.9	-3.1	3.9	-0.4
North America	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oceania	29.6	33.7	45.2	42.6	1.3	3.0	-0.5
Europe	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### 5.30 Leading Cocoa Bean Producing Countries, 2001

Country	Production (thousand MT)	Country	Production (thousand MT)
Côte d'Ivoire	1 200	Cameroon	115
Ghana	410	Ecuador	107
Indonesia	340	Malaysia	58
Nigeria	338	Mexico	47
Brazil	184	Dominican Republic	45

### 5.31 Leading Cocoa Bean Exporting Countries, 2001

Country	Quantity (thousand MT)	Value (US\$ million)
Côte d'Ivoire	1 009	717
Indonesia	303	272
Ghana	219	222

## **FORESTRY PRODUCTION AND TRADE**

### 6.1 Round Wood Production

World/Region	Production (million m <sup>3</sup> )				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>	<b>2 644</b>	<b>2 978</b>	<b>3 382</b>	<b>3 345</b>	<b>1.2</b>	<b>1.3</b>	<b>-0.1</b>
<b>Developed countries</b>	<b>1 255</b>	<b>1 340</b>	<b>1 534</b>	<b>1 335</b>	<b>0.7</b>	<b>1.4</b>	<b>-1.3</b>
Industrialized countries	785	901	1 074	1 043	1.4	1.8	-0.3
Transition economies	470	440	460	291	-0.7	0.4	-4.1
<b>Developing countries</b>	<b>1 389</b>	<b>1 638</b>	<b>1 848</b>	<b>2 011</b>	<b>1.7</b>	<b>1.2</b>	<b>0.8</b>
Latin America and the Caribbean	229	303	357	433	2.8	1.6	1.8
Near East and North Africa	68	55	50	49	-2.1	-1.1	0.0
Sub-Saharan Africa	301	359	441	544	1.8	2.1	1.9
East and Southeast Asia	529	593	616	591	1.2	0.4	-0.4
South Asia	257	319	377	383	2.2	1.7	0.2
Oceania developing	5	8	9	10	4.2	1.4	0.8
North America developing	0	0	0	0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	339	404	495	603	1.8	2.1	1.8
Asia	881	977	1 041	1 012	1.0	0.6	-0.3
Latin America	224	297	350	428	2.8	1.6	1.9
Caribbean	5	6	7	5	2.2	1.4	-2.1
North America	450	571	672	671	2.4	1.7	0.0
Oceania	26	35	42	61	3.0	1.9	3.5
Europe	334	332	388	565	-0.1	1.6	3.5

## 6.2 Exports and Imports of Round Wood

World/Region	Quantity (thousand m <sup>3</sup> )				Average Annual Rate of Growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>Exports</b>							
<b>WORLD</b>	<b>87 016</b>	<b>93 845</b>	<b>83 880</b>	<b>121 951</b>	<b>0.8</b>	<b>-1.1</b>	<b>3.5</b>
<b>Developed countries</b>	<b>49 267</b>	<b>52 325</b>	<b>54 666</b>	<b>102 062</b>	<b>0.6</b>	<b>0.4</b>	<b>5.8</b>
Industrialized countries	30 103	32 638	40 628	50 096	0.8	2.2	1.9
Transition economies	19 164	19 687	14 039	51 965	0.3	-3.3	12.6
<b>Developing countries</b>	<b>37 749</b>	<b>41 520</b>	<b>29 213</b>	<b>19 890</b>	<b>1.0</b>	<b>-3.5</b>	<b>-3.4</b>
Latin America and the Caribbean	781	1 198	3 015	1 862	4.4	9.7	-4.3
Near East and North Africa	33	9	19	13	-12.1	7.6	-3.3
Sub-Saharan Africa	6 848	6 140	4 143	5 213	-1.1	-3.9	2.1
East and Southeast Asia	29 554	33 086	20 633	10 703	1.1	-4.6	-5.8
South Asia	112	164	48	10	3.9	-11.6	-13.3
Oceania developing	422	923	1 356	2 089	8.1	3.9	4.0
North America developing	0	0	0	0	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	6 864	6 183	4 164	5 351	-1.0	-3.9	2.3
Asia	29 724	33 280	20 725	11 348	1.1	-4.6	-5.3
Latin America	399	1 198	3 013	1 862	11.6	9.7	-4.3
Caribbean	382	0	3	0	-100.0	0.0	0.0
North America	16 945	18 121	22 863	20 745	0.7	2.4	-0.9
Oceania	2 255	1 971	3 054	10 292	-1.3	4.5	11.7
Europe	15 490	19 606	19 351	72 353	2.4	-0.1	12.7
<b>Imports</b>							
<b>WORLD</b>	<b>84 183</b>	<b>96 459</b>	<b>83 430</b>	<b>123 583</b>	<b>1.4</b>	<b>-1.4</b>	<b>3.6</b>
<b>Developed countries</b>	<b>75 904</b>	<b>79 110</b>	<b>60 790</b>	<b>91 241</b>	<b>0.4</b>	<b>-2.6</b>	<b>3.8</b>
Industrialized countries	72 705	74 424	58 997	84 730	0.2	-2.3	3.3
Transition economies	3 200	4 686	1 793	6 511	3.9	-9.2	12.4
<b>Developing countries</b>	<b>8 279</b>	<b>17 349</b>	<b>22 641</b>	<b>32 343</b>	<b>7.7</b>	<b>2.7</b>	<b>3.3</b>
Latin America and the Caribbean	372	267	174	317	-3.3	-4.2	5.6
Near East and North Africa	609	1 059	1 180	1 462	5.7	1.1	2.0
Sub-Saharan Africa	87	96	46	135	1.0	-7.2	10.4
East and Southeast Asia	7 114	15 830	19 822	27 811	8.3	2.3	3.1
South Asia	97	94	1 417	2 611	-0.3	31.2	5.7
Oceania developing	0	4	1	5	0.0	-9.2	12.7
North America developing	0	0	0	1	0.0	0.0	0.0
<b>Continental groupings</b>							
Africa	517	793	301	577	4.4	-9.2	6.1
Asia	46 974	54 087	50 115	45 576	1.4	-0.8	-0.9
Latin America	342	188	68	260	-5.8	-9.6	12.9
Caribbean	30	80	106	57	10.4	2.9	-5.5
North America	4 695	4 939	1 795	14 125	0.5	-9.6	20.6
Oceania	145	9	10	12	-24.7	2.0	1.7
Europe	31 386	36 109	31 030	62 975	1.4	-1.5	6.6

## **FISHERY PRODUCTION AND TRADE**

**Table 7.1 Fish Production**

World/Region	Production (million MT)				Average annual rate of growth (%)		
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001
<b>WORLD</b>							
Marine	59.4	64.7	84.1	98.9	0.9	2.6	1.5
Inland	6.0	7.7	14.5	31.3	2.5	6.6	7.2
Total	65.4	72.4	98.6	130.2	1.0	3.1	2.6
<b>Developed countries</b>							
Marine	32.3	37.5	38.9	30.6	1.5	0.4	- 2.2
Inland	1.5	1.7	2.1	1.4	1.3	2.2	- 3.2
Total	33.7	39.2	41.0	32.1	1.5	0.5	- 2.2
Industrialized countries							
Marine	25.1	27.6	28.9	26.1	0.9	0.4	- 0.9
Inland	0.5	0.7	0.9	0.9	3.9	2.4	0.1
Total	25.6	28.3	29.7	27.0	1.0	0.5	- 0.9
Transition economies							
Marine	7.1	9.9	10.1	4.6	3.3	0.2	- 6.9
Inland	1.0	1.0	1.2	0.5	- 0.2	2.1	- 6.8
Total	8.1	10.9	11.3	5.1	3.0	0.4	- 6.9
<b>Developing countries</b>							
Marine	27.1	27.2	45.1	68.3	0.0	5.2	3.8
Inland	4.6	6.0	12.5	29.9	2.8	7.5	8.3
Total	31.7	33.3	57.6	98.1	0.5	5.6	5.0
Latin America & the Caribbean							
Marine	15.2	9.2	15.8	17.1	- 4.9	5.5	0.8
Inland	0.2	0.3	0.5	0.8	8.1	4.3	4.2
Total	15.4	9.6	16.3	17.9	- 4.6	5.5	0.9
Near East & North Africa							
Marine	0.8	1.2	1.8	2.8	4.4	3.7	4.4
Inland	0.1	0.2	0.4	0.9	4.6	7.3	7.5
Total	0.9	1.4	2.2	3.7	4.5	4.3	5.1
Sub-Saharan Africa							
Marine	1.0	1.1	1.8	2.6	0.0	5.7	3.4
Inland	1.0	1.2	1.7	1.7	1.4	3.7	0.4
Total	2.1	2.2	3.5	4.4	0.7	4.7	2.1
East & Southeast Asia							
Marine	8.5	13.4	22.3	41.1	4.6	5.3	5.7
Inland	2.0	2.8	7.6	21.8	3.7	10.3	10.1
Total	10.5	16.2	29.9	62.9	4.5	6.3	7.0
South Asia							
Marine	1.4	2.1	3.1	4.1	3.8	3.8	2.6
Inland	1.3	1.5	2.3	4.6	1.3	4.5	6.5
Total	2.8	3.6	5.4	8.7	2.7	4.1	4.5
Oceania developing							
Marine	0.1	0.1	0.2	0.3	8.7	2.9	6.7
Inland	0.0	0.0	0.0	0.0	0.0	9.0	0.3
Total	0.1	0.1	0.2	0.4	9.4	3.4	6.2

**Table 7.1 Fish Production**

World/Region	Production (million MT)				Average annual rate of growth (%)			
	1970	1980	1990	2001	1970-1980	1980-1990	1990-2001	
<b>North America developing</b>								
Marine	0.0	0.1	0.2	0.2	9.5	3.7	- 0.2	
Inland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	0.0	0.1	0.2	0.2	9.5	3.7	- 0.2	
<b>Continental groupings</b>								
<b>Africa</b>								
Marine	2.6	2.4	3.2	4.9	- 0.8	3.0	3.9	
Inland	1.1	1.3	1.9	2.4	1.8	4.1	2.0	
Total	3.7	3.7	5.2	7.3	0.0	3.4	3.2	
<b>Asia</b>								
Marine	19.1	26.4	36.6	51.9	3.3	3.3	3.2	
Inland	3.5	4.6	10.5	26.9	2.8	8.5	9.0	
Total	22.6	31.1	47.0	78.8	3.2	4.2	4.8	
<b>Latin America</b>								
Marine	15.1	9.0	15.5	16.9	- 5.0	5.6	0.8	
Inland	0.2	0.3	0.5	0.7	7.9	4.0	3.9	
Total	15.2	9.3	16.0	17.7	- 4.8	5.6	0.9	
<b>Caribbean</b>								
Marine	0.1	0.2	0.2	0.2	5.1	0.2	- 3.1	
Inland	0.0	0.0	0.0	0.1	26.3	11.7	8.1	
Total	0.1	0.3	0.3	0.2	5.4	0.9	- 1.2	
<b>North America</b>								
Marine	4.1	5.0	7.4	6.4	2.0	4.0	- 1.4	
Inland	0.2	0.2	0.3	0.4	2.2	5.0	2.2	
Total	4.2	5.2	7.7	6.8	2.0	4.1	- 1.2	
<b>Oceania</b>								
Marine	0.2	0.4	0.8	1.2	6.8	6.3	4.3	
Inland	0.0	0.0	0.0	0.0	25.9	8.1	0.9	
Total	0.2	0.4	0.8	1.2	7.1	6.3	4.2	
<b>Europe</b>								
Marine	18.0	21.0	20.3	17.2	1.5	- 0.4	- 1.5	
Inland	1.1	1.2	1.3	0.8	0.9	0.6	- 4.1	
Total	19.1	22.2	21.5	18.0	1.5	- 0.3	- 1.6	

Note: Fish production includes capture fish and aquaculture



**Table 7.2 Aquaculture**

World/Region	Production (thousand MT)			Average annual rate of growth (%)	
	1980	1990	2001	1980-1990	1990-2001
<b>WORLD</b>	<b>4 707</b>	<b>13 080</b>	<b>37 851</b>	<b>10.8</b>	<b>10.1</b>
<b>Developed countries</b>	<b>1 685</b>	<b>2 867</b>	<b>3 652</b>	<b>5.5</b>	<b>2.2</b>
Industrialized countries	1 419	2 327	3 419	5.1	3.6
Transition economies	266	540	233	7.3	- 7.3
<b>Developing countries</b>	<b>3 022</b>	<b>10 212</b>	<b>34 199</b>	<b>12.9</b>	<b>11.6</b>
Latin America and the Caribbean	27	193	1 112	21.7	17.3
Near East and North Africa	34	104	498	11.8	15.4
Sub-Saharan Africa	7	13	50	6.6	12.8
East and Southeast Asia	2 490	8 668	29 603	13.3	11.8
South Asia	464	1 235	2 931	10.3	8.2
Oceania developing	0	1	4	0.0	13.8
North America developing	0	0	0	0.0	0.0
<b>Continental groupings</b>					
Africa	26	81	402	12.0	15.7
Asia	3 553	10 806	33 514	11.8	10.8
Latin America	25	179	1 051	22.0	17.4
Caribbean	2	13	62	18.9	15.1
North America	172	357	613	7.6	5.1
Oceania	12	42	124	13.1	10.3
Europe	916	1 602	2 086	5.7	2.4

Note: Aquaculture excludes aquatic plants

**Table 7.3 Capture Fisheries**

World/Region	Production (thousand MT)			Average annual rate of growth (%)	
	1980	1990	2001	1980-1990	1990-2001
<b>WORLD</b>	<b>67 706</b>	<b>85 507</b>	<b>92 356</b>	<b>2.4</b>	<b>0.7</b>
<b>Developed countries</b>	<b>37 476</b>	<b>38 138</b>	<b>28 428</b>	<b>0.2</b>	<b>- 2.6</b>
Industrialized countries	26 873	27 414	23 546	0.2	- 1.4
Transition economies	10 603	10 725	4 881	0.1	- 6.9
<b>Developing countries</b>	<b>30 229</b>	<b>47 368</b>	<b>63 928</b>	<b>4.6</b>	<b>2.8</b>
Latin America and the Caribbean	9 530	16 082	16 800	5.4	0.4
Near East and North Africa	1 360	2 027	3 174	4.1	4.2
Sub-Saharan Africa	2 233	3 517	4 391	4.6	2.0
East and Southeast Asia	13 720	21 235	33 254	4.5	4.2
South Asia	3 136	4 157	5 792	2.9	3.1
Oceania developing	133	184	355	3	6.1
North America developing	116	167	163	4	- 0.2
<b>Continental groupings</b>					
Africa	3 663	5 075	6 890	3.3	2.8
Asia	27 519	36 226	45 262	2.8	2.0
Latin America	9 279	15 818	16 620	5.5	0.5
Caribbean	251	264	180	0.5	- 3.4
North America	5 001	7 359	6 157	3.9	- 1.6
Oceania	411	741	1 108	6.1	3.7
Europe	21 284	19 947	15 963	- 0.6	- 2.0

**Table 7.4 Capture Fisheries - Leading Countries in 2001**

Country	Production (thousand MT)	% of World production
China*	16 529	17.9
Peru	7 986	8.6
United States of America	4 944	5.4
Japan	4 719	5.1
Indonesia	4 204	4.6
Chile	3 797	4.1
India	3 763	4.1
Russian Federation	3 628	3.9
Thailand	2 881	3.1
Norway	2 687	2.9
<b>Rest of the World</b>	<b>37 216</b>	<b>40.3</b>

\* China Mainland

**Table 7.5 Aquaculture - Leading Countries in 2001**

Country	Production (thousand MT)	% of World production
China*	26 050	68.8
India	2 203	5.8
Indonesia	864	2.3
Japan	802	2.1
Thailand	724	1.9
Bangladesh	687	1.8
Chile	566	1.5
Viet Nam	519	1.4
Norway	512	1.4
United States of America	461	1.2
<b>Rest of the World</b>	<b>4 463</b>	<b>11.8</b>

\* China Mainland

**Table 7.6 Capture Fisheries - Leading Species in 2001**

Species	Production (thousand MT)	% of World production
Anchoveta (Peruvian anchovy)	7 213	7.8
Alaska pollock (Walleye poll.)	3 136	3.4
Chilean jack mackerel	2 509	2.7
Atlantic herring	1 953	2.1
Japanese anchovy	1 837	2.0
Skipjack tuna	1 836	2.0
Blue whiting (Poutassou)	1 823	2.0
Chub mackerel	1 799	1.9
Capelin	1 671	1.8
Largehead hairtail	1 472	1.6
<b>Other species</b>	<b>67 107</b>	<b>72.7</b>

**Table 7.7 Aquaculture - Leading Species in 2001**

Species	Production (thousand MT)	% of World production
Pacific cupped oyster	4 110	10.9
Grass carp (White amur)	3 636	9.6
Silver carp	3 546	9.4
Common carp	2 849	7.5
Japanese carpet shell	2 091	5.5
Bighead carp	1 663	4.4
Crucian carp	1 527	4.0
Yesso scallop	1 196	3.2
Nile tilapia	1 109	2.9
Atlantic salmon	1 025	2.7
<b>Other species</b>	<b>15 097</b>	<b>39.9</b>

### 7.8 Value of Exports and Imports of Fish and Fishery Products

World/Region	Value (US\$ million)			Average annual rate of growth (%)	
	1980	1990	2001	1980-1990	1990-2001
<b>Exports</b>					
<b>WORLD</b>	<b>15 398</b>	<b>35 487</b>	<b>55 865</b>	<b>8.7</b>	<b>4.2</b>
<b>Developed countries</b>	<b>9 225</b>	<b>20 132</b>	<b>27 766</b>	<b>8.1</b>	<b>3.0</b>
Industrialized countries	8 794	18 940	25 520	8.0	2.7
Transition economies	431	1 192	2 246	10.7	5.9
<b>Developing countries</b>	<b>6 173</b>	<b>15 355</b>	<b>28 099</b>	<b>9.5</b>	<b>5.6</b>
Latin America and the Caribbean	2 127	3 305	6 989	4.5	7.0
Near East and North Africa	243	868	1 254	13.6	3.4
Sub-Saharan Africa	289	720	1 470	9.6	6.7
East and Southeast Asia	2 861	9 191	16 189	12.4	5.3
South Asia	383	790	1 791	7.5	7.7
Oceania developing	119	80	162	-3.9	6.6
North America developing	151	401	244	10.3	-4.4
<b>Continental groupings</b>					
Africa	541	1 482	2 703	10.6	5.6
Asia	4 247	11 018	19 080	10.0	5.1
Latin America	1 980	3 111	6 805	4.6	7.4
Caribbean	147	194	184	2.8	-0.5
North America	2 247	5 691	6 358	9.7	1.0
Oceania	545	1 044	1 700	6.7	4.5
Europe	5 691	12 947	19 035	8.6	3.6
<b>Imports</b>					
<b>WORLD</b>	<b>15 981</b>	<b>39 477</b>	<b>59 397</b>	<b>9.5</b>	<b>3.8</b>
<b>Developed countries</b>	<b>13 525</b>	<b>34 306</b>	<b>48 975</b>	<b>9.8</b>	<b>3.3</b>
Industrialized countries	13 084	33 830	47 506	10.0	3.1
Transition economies	442	475	1 469	0.7	10.8
<b>Developing countries</b>	<b>2 456</b>	<b>5 171</b>	<b>10 422</b>	<b>7.7</b>	<b>6.6</b>
Latin America and the Caribbean	470	552	1 036	1.6	5.9
Near East and North Africa	283	277	651	-0.2	8.1
Sub-Saharan Africa	737	642	732	-1.4	1.2
East and Southeast Asia	859	3 568	7 821	15.3	7.4
South Asia	24	46	104	6.5	7.8
Oceania developing	77	75	64	-0.2	-1.4
North America developing	5	12	14	8.5	1.1
<b>Continental groupings</b>					
Africa	879	883	1 008	0.1	1.2
Asia	4 271	14 531	21 939	13.0	3.8
Latin America	291	365	836	2.3	7.8
Caribbean	179	186	200	0.4	0.6
North America	2 940	6 206	11 676	7.8	5.9
Oceania	272	455	639	5.3	3.1
Europe	7 149	16 851	23 098	9.0	2.9

### 7.9 Leading Fishery Exporters and Importers, 2001

Exporters			Importers		
Country	Value of exports (US\$ million)	% of World exports	Country	Value of imports (US\$ million)	% of World imports
Thailand	4 039	7	Japan	13 453	23
China (Mainland)	3 999	7	United States of America	10 291	17
Norway	3 364	6	Spain	3 724	6
United States of America	3 316	6	France	3 063	5
Canada	2 798	5	Italy	2 722	5
Denmark	2 666	5	Germany	2 354	4
Chile	1 939	3	United Kingdom	2 242	4
Spain	1 848	3	China (Mainland)	1 787	3
China (Taiwan)	1 821	3	China H. Kong SAR	1 768	3
Viet Nam	1 781	3	Denmark	1 737	3
Indonesia	1 534	3	Korea, Rep. of	1 627	3
Russian Federation	1 528	3	Canada	1 372	2
<b>Rest of the World</b>	<b>25 232</b>	<b>45</b>	<b>Rest of the World</b>	<b>13 254</b>	<b>22</b>

### 7.10 Fish Utilization

World/Region	Total fish production	Utilization	
		Human consumption	Other purposes
(million MT)			
<b>WORLD</b>			
1970	65	41	24
1980	72	51	21
1990	99	71	28
2001	130	99	31
<b>Developed countries</b>			
1970	33	24	9
1980	39	27	12
1990	41	29	12
2001	32	24	8
<b>Developing countries</b>			
1970	32	17	15
1980	33	24	9
1990	58	42	16
2001	98	75	23

**FOOD, NUTRITION AND FOOD SECURITY**

### 8.1 Per Caput Food Availability

World/Region	1969-71	1979-81	1989-91	1999-2001
(kcal/day)				
<b>WORLD</b>	<b>2410</b>	<b>2550</b>	<b>2710</b>	<b>2800</b>
<b>Developed countries</b>	<b>3130</b>	<b>3220</b>	<b>3290</b>	<b>3260</b>
Industrialized countries	3040	3130	3290	3430
Transition economies	3320	3390	3280	2890
<b>Developing countries</b>	<b>2110</b>	<b>2310</b>	<b>2520</b>	<b>2680</b>
Latin America and the Caribbean	2470	2700	2700	2840
Near East and North Africa	2380	2850	3000	2950
Sub-Saharan Africa	2110	2090	2120	2210
East and Southeast Asia	2010	2320	2630	2880
South Asia	2070	2080	2330	2450
Oceania developing	2150	2300	2310	2320
North America developing	2810	3020	2900	2950
<b>Continental groupings</b>				
Africa	2180	2280	2350	2430
Asia	2090	2290	2550	2710
Latin America	2480	2710	2720	2870
Caribbean	2340	2530	2430	2410
North America	3020	3170	3430	3710
Oceania	3010	2920	3010	2940
Europe	3200	3320	3390	3280

## 8.2 Contribution of Food Groups to Food Availability in Calorie Terms

World/Region	Period	Cereals	Roots and Tubers	Meat and Offals	Vegetable Oils and Fats	Sugar and Products	Milk and Products	Other	All Food
(%)									
<b>WORLD</b>									
	1979-81	51	6	6	7	9	4	16	100
	1989-91	51	5	7	8	9	4	16	100
	1999-01	48	5	8	9	9	4	17	100
<b>Developed countries</b>									
	1979-81	31	4	11	10	13	9	22	100
	1989-91	31	4	11	11	13	9	22	100
	1999-01	31	4	11	13	13	9	20	100
Industrialized countries									
	1979-81	27	4	11	12	14	9	24	100
	1989-91	27	4	11	13	13	9	23	100
	1999-01	27	3	11	14	13	9	22	100
Transition economies									
	1979-81	39	6	9	6	13	7	20	100
	1989-91	38	5	11	7	13	7	19	100
	1999-01	41	6	8	8	11	9	16	100
<b>Developing countries</b>									
	1979-81	61	7	4	6	7	2	13	100
	1989-91	59	5	5	7	7	3	13	100
	1999-01	54	6	7	8	7	3	16	100
Latin America and the Caribbean									
	1979-81	39	5	8	9	17	5	17	100
	1989-91	38	4	8	11	16	5	17	100
	1999-01	36	4	10	10	17	6	17	100
Near East and North Africa									
	1979-81	57	2	3	9	10	5	14	100
	1989-91	57	2	3	10	9	4	14	100
	1999-01	57	2	4	10	9	4	15	100
Sub-Saharan Africa									
	1979-81	45	18	3	8	5	3	19	100
	1989-91	47	20	3	8	4	3	17	100
	1999-01	46	20	3	8	4	2	16	100
East and Southeast Asia									
	1979-81	68	9	5	3	3	0	11	100
	1989-91	65	5	7	6	4	1	12	100
	1999-01	55	5	11	6	4	1	17	100
South Asia									
	1979-81	66	2	1	6	9	4	12	100
	1989-91	65	2	1	7	9	4	12	100
	1999-01	60	2	1	9	9	5	13	100
Oceania developing									
	1979-81	25	28	7	4	7	2	28	100
	1989-91	28	25	8	6	5	2	27	100
	1999-01	32	22	8	7	5	1	25	100



## 8.2 Contribution of Food Groups to Food Availability in Calorie Terms

World/Region	Period	Cereals	Roots and Tubers	Meat and Offals	Vegetable Oils and Fats	Sugar and Products	Milk and Products	Other	All Food
(%)									
North America developing									
	1979-81	20	2	19	7	12	8	32	100
	1989-91	20	3	19	10	10	6	31	100
	1999-01	22	3	15	13	13	5	29	100
<b>Continental groupings</b>									
Africa									
	1979-81	49	13	3	8	7	3	16	100
	1989-91	51	14	3	8	6	3	15	100
	1999-01	50	14	3	8	6	3	15	100
Asia									
	1979-81	65	6	4	5	6	2	12	100
	1989-91	63	4	5	6	6	2	13	100
	1999-01	56	4	7	8	6	3	16	100
Latin America									
	1979-81	39	5	8	9	17	5	17	100
	1989-91	38	4	8	11	16	5	17	100
	1999-01	36	4	10	10	17	6	17	100
Caribbean									
	1979-81	35	6	6	7	17	6	23	100
	1989-91	35	5	6	10	17	5	22	100
	1999-01	36	5	7	11	17	4	20	100
North America									
	1979-81	20	3	12	15	17	11	22	100
	1989-91	23	3	12	16	17	11	20	100
	1999-01	23	3	12	15	17	10	20	100
Oceania									
	1979-81	23	7	15	8	15	9	23	100
	1989-91	23	7	15	10	13	10	23	100
	1999-01	23	7	14	12	12	10	21	100
Europe									
	1979-81	29	5	12	10	11	9	25	100
	1989-91	28	4	12	12	11	9	24	100
	1999-01	31	5	11	12	11	9	21	100

### 8.3 Prevalence of Undernutrition in Developing Regions

World/Region	Undernourished							
	Percentage of Population				Number (million)			
	1969-71	1979-81	1990-92	1998-2000	1969-71	1979-81	1990-92	1998-2000
<b>WORLD</b>	...	...	...	14	...	...	...	840
<b>Developed countries</b>	...	...	...	3	...	...	...	41
Industrialized countries	...	...	...	1	...	...	...	11
Transition economies	...	...	...	7	...	...	...	30
<b>Developing countries</b>	<b>37</b>	<b>28</b>	<b>20</b>	<b>17</b>	<b>958</b>	<b>920</b>	<b>819</b>	<b>799</b>
Latin America and the Caribbean	19	13	13	11	54	46	59	55
Near East and North Africa	24	9	8	10	44	21	26	40
Sub-Saharan Africa	35	36	35	33	92	125	166	196
East and Southeast Asia	43	28	16	10	502	396	275	192
South Asia	37	37	26	24	265	330	292	315
Oceania developing *	38	24	25	27	1	1	1	1
North America developing	...	...	...	...	...	...	...	...
<b>Continental groupings</b>								
Africa	34	31	29	28	111	133	172	202
Asia	40	30	20	16	791	741	587	541
Latin America	20	14	14	10	39	34	42	35
Caribbean	18	11	12	12	16	12	17	20
North America	...	...	...	...	...	...	...	...
Oceania *	38	24	25	27	1	1	1	1
Europe	...	...	...	...	...	...	...	...

\* only Papua New Guinea

#### 8.4 Food Aid Received (Shipments) - Cereals

World/Region	1970/71	1980/81	1990/91	1997/98	1998/99	1999/00	2000/01	2001/02
(thousand MT)								
<b>WORLD*</b>	<b>12 938</b>	<b>8 942</b>	<b>12 269</b>	<b>5 768</b>	<b>10 783</b>	<b>10 628</b>	<b>8 885</b>	<b>7 352</b>
<b>Developed countries</b>	<b>948</b>	<b>270</b>	<b>1 164</b>	<b>837</b>	<b>2 490</b>	<b>3 378</b>	<b>1 078</b>	<b>910</b>
Industrialized countries	819	270	1	0	0	0	18	9
Transition economies	128	0	1 163	837	2 490	3 378	1 061	901
<b>Developing countries</b>	<b>11 776</b>	<b>8 652</b>	<b>11 105</b>	<b>4 931</b>	<b>8 293</b>	<b>7 250</b>	<b>7 807</b>	<b>6 442</b>
Latin America and the Caribbean	1 008	583	1 919	509	950	787	599	757
Near East and North Africa	2 548	2 442	3 874	414	403	689	1 204	864
Sub-Saharan Africa	606	2 399	3 190	1 897	2 194	2 501	3 084	2 004
East and Southeast Asia	3 865	1 499	345	1 054	2 835	1 836	2 144	1 784
South Asia	3 735	1 722	1 774	1 058	1 901	1 437	776	1 034
Oceania developing	14	7	3	0	9	0	0	0
North America developing	0	0	0	0	0	0	0	0
<b>Continental groupings</b>								
Africa	1 737	4 512	6 174	1 990	2 245	2 605	3 419	2 077
Asia	9 824	3 560	3 011	3 010	5 251	4 193	4 283	4 065
Latin America	895	385	1 596	355	746	453	462	565
Caribbean	113	198	324	155	204	333	136	192
North America	0	0	0	0	0	0	0	0
Oceania	14	7	3	0	9	0	0	0
Europe	140	260	1 142	258	2 329	3 043	585	453
<b>Low-income food deficit countries</b>	<b>6 495</b>	<b>7 101</b>	<b>8 922</b>	<b>5 144</b>	<b>7 963</b>	<b>7 256</b>	<b>7 596</b>	<b>6 266</b>

\* Including shipments channelled through multilateral organizations for which breakdown by recipients is not available.

#### 8.5 Food Aid Shipments (Cereals) to Main Recipient Countries in 2001/2002 (July/June)

Country	Quantity (thousand MT)	% of total food aid	Country	Quantity (thousand MT)	% of total food aid
Korea Dem. People's Rep.	1 060	14.4	Kenya	133	1.8
Bangladesh	564	7.7	Yemen	123	1.7
Ethiopia	299	4.1	Lebanon	120	1.6
Afghanistan	269	3.7	Bosnia and Herzegovina	105	1.4
Eritrea	252	3.4	Kyrgyzstan	95	1.3
Philippines	245	3.3	Haiti	94	1.3
Indonesia	232	3.2	Tanzania	90	1.2
Pakistan	226	3.1	Sudan	86	1.2
Jordan	221	3.0	Serbia and Montenegro	83	1.1
Mozambique	181	2.5	Georgia	82	1.1
Angola	181	2.5	China	81	1.1
Tajikistan	173	2.4	Sri Lanka	72	1.0
India	159	2.2	Ecuador	69	0.9
Russian Federation	153	2.1	Bolivia	67	0.9
Guatemala	134	1.8	Dominican Republic	65	0.9

### 8.6 Changes in Global Food Security Indicators

	Average 1995/96 - 1999/00	2000/01	2001/02	2002/03 <sup>1/</sup>
1 Ratio of Five Major Grain Exporters Supplies to Requirements <sup>2/3/</sup>	1.16	1.2	1.19	1.13
2 Closing Stocks as a percentage of Total Disappearance of Major Cereal Exporters:				
Wheat <sup>3/</sup>	18.2	22.3	20.9	15.7
Coarse Grains <sup>3/</sup>	14.5	17.1	16.4	11.1
Rice <sup>4/</sup>	64.3	61.4	54.8	46.5
Total	32.3	33.6	30.7	24.5
	<b>Annual Trend Growth Rate</b>	<b>Percentage Change from Previous Year</b>		
	<b>1992-2001</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
3 Changes in Cereal Production in China, India and CIS Republics	3.49	-6.00	5.55	-0.81
4 Changes in Cereal Production in Low-income Food deficit Countries (LIFDCs)	0.99	-4.97	0.62	-1.09
5 Changes in Cereal Production in LIFDCs less China and India	1.87	1.22	3.21	1.18
		<b>Percentage Change from Previous Year</b>		
		<b>2000/01</b>	<b>2001/02</b>	<b>2002/03 <sup>7/</sup></b>
6 Export Price Movements <sup>5/</sup> (Annual Averages)	Wheat (July/June)	14.3	-1.2	35.2
	Maize (July/June)	-5.0	4.8	19.1
	Rice (Jan./Dec.) <sup>6/</sup>	-25.5	-4.9	11.2

<sup>1/</sup> Forecast

<sup>2/</sup> Includes wheat and coarse grains. It is the ratio of the sum of their supplies (production, imports and opening stocks) to requirement (i. e. the sum of their domestic utilization plus exports).

<sup>3/</sup> Argentina, Australia, Canada, EC and the United States

<sup>4/</sup> China, Pakistan, Thailand, United States and Viet Nam

<sup>5/</sup> Wheat: U.S. no.2 Hard Winter; Maize: U.S. no.2 Yellow; Rice: Thai broken (A1 super)

<sup>6/</sup> Rice prices are based on the calendar year average of the first year shown.

<sup>7/</sup> For 2002/03 wheat and maize prices, seven-month averages only (July/January). Changes in prices are calculated by comparing the first seven months of the season with the corresponding period in 2001/02.

## **PROJECTIONS**

### 9.1 Projections of Total Population

World / Region	Total population (million)						
	1995	2000	2010	2020	2030	2040	2050
<b>WORLD</b>	<b>5 662</b>	<b>6 057</b>	<b>6 826</b>	<b>7 579</b>	<b>8 270</b>	<b>8 855</b>	<b>9 322</b>
<b>Developed countries</b>	<b>1 290</b>	<b>1 315</b>	<b>1 340</b>	<b>1 356</b>	<b>1 360</b>	<b>1 352</b>	<b>1 335</b>
Industrialized countries	876	903	938	962	979	985	986
Transition economies	414	412	402	394	381	366	349
<b>Developing countries</b>	<b>4 372</b>	<b>4 742</b>	<b>5 486</b>	<b>6 224</b>	<b>6 910</b>	<b>7 503</b>	<b>7 987</b>
Latin America and the Caribbean	480	519	594	664	723	771	806
Near East and North Africa	360	400	487	577	667	753	832
Sub-Saharan Africa	533	608	784	998	1 235	1 479	1 714
East and Southeast Asia	1 777	1 876	2 045	2 196	2 297	2 351	2 356
South Asia	1 215	1 332	1 566	1 778	1 974	2 134	2 264
Oceania developing	7	8	9	11	13	15	16
North America developing	...	...	...	...	...	...	...
<b>Continental groupings</b>							
Africa	703	794	997	1 231	1 489	1 750	2 000
Asia	3 423	3 672	4 145	4 582	4 950	5 232	5 428
Latin America	444	481	553	619	676	721	756
Caribbean	36	38	42	45	48	49	50
North America	298	314	342	370	396	418	438
Oceania	29	31	34	38	42	45	47
Europe	729	727	713	695	670	639	603

### 9.2 Annual Growth Rate of Total Population Projections

World / Region	Average annual rate of growth (%)					
	1995-2000	2000-2010	2010-2020	2020-2030	2030-2040	2040-2050
<b>WORLD</b>	<b>1.3</b>	<b>1.2</b>	<b>1.0</b>	<b>0.9</b>	<b>0.7</b>	<b>0.5</b>
<b>Developed countries</b>	<b>0.4</b>	<b>0.2</b>	<b>0.1</b>	<b>0.0</b>	<b>-0.1</b>	<b>-0.1</b>
Industrialized countries	0.6	0.4	0.2	0.2	0.1	0.0
Transition economies	-0.1	-0.3	-0.2	-0.3	-0.4	-0.5
<b>Developing countries</b>	<b>1.6</b>	<b>1.5</b>	<b>1.3</b>	<b>1.0</b>	<b>0.8</b>	<b>0.6</b>
Latin America and the Caribbean	1.6	1.4	1.1	0.9	0.6	0.4
Near East and North Africa	2.1	2.0	1.7	1.5	1.2	1.0
Sub-Saharan Africa	2.6	2.6	2.4	2.1	1.8	1.5
East and Southeast Asia	1.1	0.9	0.7	0.5	0.2	0.0
South Asia	1.8	1.6	1.3	1.0	0.8	0.6
Oceania developing	2.2	2.1	1.9	1.6	1.2	0.9
North America developing	0.3	0.4	0.4	0.4	0.3	0.3
<b>Continental groupings</b>						
Africa	2.4	2.3	2.1	1.9	1.6	1.3
Asia	1.4	1.2	1.0	0.8	0.6	0.4
Latin America	1.6	1.4	1.1	0.9	0.7	0.5
Caribbean	1.1	1.0	0.8	0.5	0.3	0.1
North America	1.0	0.8	0.8	0.7	0.5	0.5
Oceania	1.4	1.2	1.0	0.9	0.7	0.5
Europe	0.0	-0.2	-0.3	-0.4	-0.5	-0.6

### 9.3 Agricultural Population Projections and Related Growth Rates

World/Region	Agricultural Population (million)			Average annual rate of growth (%)	
	1990	2000	2010	1990-2000	2000-2010
<b>WORLD</b>	<b>2 438</b>	<b>2 567</b>	<b>2 624</b>	<b>0.5</b>	<b>0.2</b>
<b>Developed countries</b>	<b>134</b>	<b>100</b>	<b>73</b>	<b>-2.9</b>	<b>-3.1</b>
Industrialized countries	51	37	26	-3.3	-3.6
Transition economies	83	63	48	-2.7	-2.8
<b>Developing countries</b>	<b>2 304</b>	<b>2 467</b>	<b>2 551</b>	<b>0.7</b>	<b>0.3</b>
Latin America and the Caribbean	117	108	97	-0.8	-1.1
Near East and North Africa	113	120	121	0.6	0.1
Sub-Saharan Africa	324	389	458	1.8	1.6
East and Southeast Asia	1 094	1 123	1 103	0.3	-0.2
South Asia	652	722	767	1.0	0.6
Oceania developing	4	5	6	1.6	1.3
North America developing	0	0	0	-6.9	0.0
<b>Continental groupings</b>					
Africa	377	441	506	1.6	1.4
Asia	1 823	1 943	1 966	0.6	0.1
Latin America	107	99	88	-0.8	-1.1
Caribbean	10	9	9	-0.6	-0.6
North America	9	7	6	-2.1	-2.2
Oceania	5	6	7	1.1	0.9
Europe	51	62	43	1.9	-3.7

### 9.4 Total Labour Force Projections and Related Growth Rates

World/Region	Total Labour Force (million)			Average annual rate of growth (%)	
	1990	2000	2010	1990-2000	2000-2010
<b>WORLD</b>	<b>2 498</b>	<b>2 948</b>	<b>3 410</b>	<b>1.7</b>	<b>1.5</b>
<b>Developed countries</b>	<b>610</b>	<b>655</b>	<b>680</b>	<b>0.7</b>	<b>0.4</b>
Industrialized countries	408	446	463	0.9	0.4
Transition economies	202	209	217	0.3	0.4
<b>Developing countries</b>	<b>1 887</b>	<b>2 293</b>	<b>2 730</b>	<b>1.9</b>	<b>1.7</b>
Latin America and the Caribbean	176	223	270	2.4	1.9
Near East and North Africa	109	149	201	3.1	3.0
Sub-Saharan Africa	208	271	351	2.6	2.6
East and Southeast Asia	923	1 062	1 183	1.4	1.1
South Asia	469	584	720	2.2	2.1
Oceania developing	3	4	4	2.4	2.4
North America developing	0	0	0	0.6	0.6
<b>Continental groupings</b>					
Africa	262	343	442	2.7	2.5
Asia	1 527	1 846	2 143	1.9	1.5
Latin America	162	206	251	2.4	2.0
Caribbean	14	17	20	1.9	1.5
North America	143	162	178	1.2	0.9
Oceania	13	15	17	1.7	1.3
Europe	234	360	360	4.3	0.0

### 9.5 Agricultural Labour Force Projections and Related Growth Rates

World/Region	Agricultural Labour Force (million)			Average annual rate of growth (%)	
	1990	2000	2010	1990-2000	2000-2010
<b>WORLD</b>	<b>1 221</b>	<b>1 319</b>	<b>1 386</b>	<b>0.8</b>	<b>0.5</b>
<b>Developed countries</b>	<b>62</b>	<b>48</b>	<b>37</b>	<b>-2.6</b>	<b>-2.6</b>
Industrialized countries	23	16	11	-3.2	-3.7
Transition economies	40	31	25	-2.3	-2.1
<b>Developing countries</b>	<b>1 159</b>	<b>1 271</b>	<b>1 349</b>	<b>0.9</b>	<b>0.6</b>
Latin America and the Caribbean	45	44	42	-0.1	-0.5
Near East and North Africa	43	49	55	1.4	1.1
Sub-Saharan Africa	149	179	211	1.8	1.7
East and Southeast Asia	623	654	656	0.5	0.0
South Asia	298	342	382	1.4	1.1
Oceania developing	2	2	3	1.7	1.5
North America developing	0	0	0	0.0	-6.9
<b>Continental groupings</b>					
Africa	166	197	230	1.7	1.6
Asia	953	1 040	1 085	0.9	0.4
Latin America	41	40	38	-0.1	-0.6
Caribbean	4	4	4	0.0	-0.1
North America	4	3	3	-1.9	-2.1
Oceania	3	3	3	1.2	1.1
Europe	24	31	22	2.5	-3.2



### 9.6 Average Annual Rates of Growth of Value of Gross Agricultural Production and Domestic Demand

World/Region	Production				Domestic Demand (all uses)			
	Total		Per Caput		Total		Per Caput	
	1992-2001 – 2015	1997/99 – 2015	1992-2001 – 2015	1997/99 – 2015	1992-2001 – 2015	1997/99 – 2015	1992-2001 – 2015	1997/99 – 2015
<b>WORLD</b>	<b>2.6</b>	<b>1.6</b>	<b>1.2</b>	<b>0.4</b>	<b>2.3</b>	<b>1.6</b>	<b>0.9</b>	<b>0.4</b>
<b>Developed countries</b>	<b>0.3</b>	<b>0.8</b>	<b>-0.1</b>	<b>0.6</b>	<b>0.2</b>	<b>0.7</b>	<b>-0.2</b>	<b>0.5</b>
Industrialized countries	1.3	0.8	0.7	0.5	1.1	0.7	0.5	0.4
Transition economies	-2.7	0.6	-2.6	0.9	-2.4	0.5	-2.3	0.7
<b>Developing countries</b>	<b>4.2</b>	<b>2.0</b>	<b>2.5</b>	<b>0.6</b>	<b>3.8</b>	<b>2.2</b>	<b>2.1</b>	<b>0.7</b>
Latin America and the Caribbean	3.3	2.1	1.7	0.8	2.8	2.1	1.2	0.8
Near East and North Africa	5.9	2.1	3.6	0.2	2.6	2.4	0.4	0.5
Sub-Saharan Africa	3.2	2.8	0.5	0.2	3.4	2.9	0.8	0.3
East and Southeast Asia	4.6	1.7	3.5	0.8	4.8	1.8	3.6	0.9
South Asia	2.9	2.5	1.0	0.9	3.2	2.6	1.3	1.0
<b>Continental groupings</b>								
Africa	6.1	2.5	3.5	0.3	3.2	2.6	0.7	0.3
Asia	3.6	1.9	2.1	0.7	3.7	2.0	2.3	0.8
Latin America	3.4	2.1	1.7	0.8	2.9	2.1	1.2	0.7
Caribbean	0.7	1.9	-0.4	1.0	2.4	1.8	1.3	0.9
North America, developed	1.8	1.3	0.7	0.4	1.6	1.1	0.6	0.3
Oceania, developed	3.9	1.1	2.7	0.2	2.5	0.8	1.3	0.0
Europe	-0.7	0.3	-0.7	0.5	-0.5	0.3	-0.5	0.5

### 9.7 Projections of Total Cereal Production

World/Region	Cereals Production *					Average Annual Growth Rates (%)		
	1992-94	1997/99	1999/2001	2015	2030	1992-01 – 2015	1997/99 – 2015	2015 – 2030
	(million tons)							
<b>WORLD</b>	<b>1 767</b>	<b>1 889</b>	<b>1 883</b>	<b>2 387</b>	<b>2 839</b>	<b>1.0</b>	<b>1.4</b>	<b>1.2</b>
<b>Developed countries</b>	<b>842</b>	<b>863</b>	<b>858</b>	<b>1 033</b>	<b>1 186</b>	<b>0.5</b>	<b>1.1</b>	<b>0.9</b>
Industrialized countries	594	652	647	785	899	1.4	1.1	0.9
Transition economies	248	210	211	248	287	-2.1	1.0	1.0
<b>Developing countries</b>	<b>924</b>	<b>1 026</b>	<b>1 026</b>	<b>1 354</b>	<b>1 652</b>	<b>1.5</b>	<b>1.6</b>	<b>1.3</b>
Latin America and the Caribbean	111	125	133	188	244	2.6	2.4	1.7
Near East and North Africa	84	83	80	107	133	-0.3	1.5	1.5
Sub-Saharan Africa	61	71	72	114	168	2.3	2.8	2.6
East and Southeast Asia	454	507	487	622	714	0.9	1.2	0.9
South Asia	214	239	254	323	393	2.4	1.8	1.3
<b>Continental groupings</b>								
Africa	95	107	108	163	230	2.3	2.5	2.3
Asia	766	832	828	1 052	1 237	1.1	1.4	1.1
Latin America	110	124	132	186	242	2.6	2.4	1.7
Caribbean	1	1	1	2	2	3.1	1.8	1.7
North America, developed	369	389	381	483	572	0.8	1.3	1.1
Oceania, developed	23	33	36	39	45	6.1	0.9	1.1
Europe	400	400	396	460	509	0.1	0.8	0.7

\* Including rice in milled form.

### 9.8 Projections of Harvested Land

World/Region	1997/99	2015	2030
	(million ha)		
<b>WORLD</b>	<b>1 401</b>	<b>1 505</b>	<b>1 609</b>
<b>Developed countries</b>	<b>514</b>	<b>526</b>	<b>543</b>
Industrialized countries	310	317	326
Transition economies	203	209	217
<b>Developing countries</b>	<b>887</b>	<b>979</b>	<b>1 066</b>
Latin America and the Caribbean	127	151	174
Near East and North Africa	70	77	84
Sub-Saharan Africa	155	186	217
East and Southeast Asia	304	317	329
South Asia	230	248	262
<b>Continental groupings</b>			
Africa	184	218	252
Asia	622	661	693
Latin America	123	146	168
Caribbean	4	5	5
North America, developed	173	182	194
Oceania, developed	41	41	40
Europe	252	252	257

### 9.9 Projections of Availability of Arable Land (including permanent crops)

Region	1997/99		2015		2030	
	Total	per person	Total	per person	Total	per person
	(million ha)	(ha)	(million ha)	(ha)	(million ha)	(ha)
<b>Developing countries</b>	<b>956</b>	<b>0.21</b>	<b>1,017</b>	<b>0.17</b>	<b>1,076</b>	<b>0.16</b>
Latin America and the Caribbean	203	0.41	223	0.36	244	0.34
Near East and North Africa	86	0.23	89	0.17	93	0.14
Sub-Saharan Africa	228	0.40	262	0.30	288	0.23
East and Southeast Asia	232	0.13	233	0.11	237	0.10
South Asia	207	0.16	210	0.13	216	0.11
<b>Continental groupings</b>						
Africa (excl. South Africa)	254	0.34	288	0.27	315	0.22
Asia (excl. Japan)	499	0.15	506	0.12	518	0.11
Latin America	197	0.42	217	0.37	238	0.35
Caribbean	6	0.19	6	0.16	6	0.15

Note: projections of arable land only for developing countries

### 9.10 Projections of Irrigated Land

Region	Irrigated land in use			Irrigated land harvested		
	1997/99	2015	2030	1997/99	2015	2030
	(million ha)			(million ha)		
<b>Developing countries</b>	<b>202</b>	<b>221</b>	<b>242</b>	<b>257</b>	<b>306</b>	<b>341</b>
Latin America and the Caribbean	18	20	22	16	19	22
Near East and North Africa	26	29	33	27	32	37
Sub-Saharan Africa	5	6	7	5	6	7
East and Southeast Asia	71	78	85	110	131	144
South Asia	81	87	95	100	117	131
<b>Continental groupings</b>						
Africa (excl. South Africa)	11	13	15	13	15	18
Asia (excl. Japan)	172	188	206	229	271	301
Latin America	17	19	21	15	18	21
Caribbean	1	1	1	1	1	1

Note: projections of irrigated land only for developing countries

### 9.11 Projections of Per Caput Food Availability and Percentage and Number of Undernourished

Region	Per caput food availability			Undernourished					
	(kcal/day)			Percentage of population			Number (million)		
	1997/99	2015	2030	1997/99	2015	2030	1997/99	2015	2030
<b>Developing countries</b>	<b>2 681</b>	<b>2 846</b>	<b>2 984</b>	<b>17</b>	<b>11</b>	<b>6</b>	<b>776</b>	<b>610</b>	<b>443</b>
Latin America and the Caribbean	2 824	2 983	3 136	11	6	4	54	40	25
Near East and North Africa	3 006	3 092	3 165	9	7	5	32	37	34
Sub-Saharan Africa	2 195	2 360	2 543	34	23	15	194	205	183
East and Southeast Asia	2 923	3 064	3 192	11	6	4	193	135	82
South Asia	2 403	2 700	2 901	24	12	6	303	195	119
<b>Continental groupings</b>									
Africa (excl. South Africa)	2 385	2 517	2 660	28	20	13	200	211	189
Asia (excl. Japan)	2 719	2 907	3 057	16	9	5	522	361	229
Latin America	2 858	3 009	3 156	10	6	3	45	34	22
Caribbean	2 340	2 584	2 808	28	16	9	9	6	4

**SELECTED FOOD AND AGRICULTURE INDICATORS BY COUNTRY**

## 10.1 Selected Food and Agriculture Indicators by Country

Region/Country	Population 2001 (thousands)	Per caput food availability 1999 2001 (kcal/day)	Per caput GNI 2001 (US\$)	Agricultural labour force in total labour force 2001 (%)	Agricultural exports in total export value 2001 (%)
<b>WORLD</b>					
<b>DEVELOPED COUNTRIES</b>					
<b>Industrialized countries</b>					
Andorra	90	...	...	...	...
Australia	19 338	3 110	19 900	4	26
Austria	8 075	3 790	23 940	5	18
Belgium	10 264	3 670 (a)	23 850	2	10
Canada	31 015	3 180	21 930	2	7
Denmark	5 333	3 440	30 600	4	18
Faeroe Islands	47	...	...	...	2
Finland	5 178	3 180	23 780	5	2
France	59 453	3 600	(b)	3	10
Germany	82 007	3 500	23 560	2	4
Gibraltar	27	...	...	8	...
Greece	10 623	3 730	11 430	16	24
Holy See	1	...	...	...	...
Iceland	281	3 210	28 910	8	2
Ireland	3 841	3 690	22 850	10	7
Israel	6 172	3 520	16 750	3	3
Italy	57 503	3 660	19 390	5	7
Japan	127 335	2 750	35 610	4	1
Liechtensten	33	...	...	0	...
Luxembourg	442	3 670 (a)	39 840	2	5
Malta	392	3 510	9 210	1	2
Monaco	34	...	...	0	...
Netherlands	15 930	3 290	24 330	3	12
New Zealand	3 808	3 210	13 250	9	49
Norway	4 488	3 370	35 630	4	1
Portugal	10 033	3 750	10 900	12	6
San Marino	27	...	...	...	...
South Africa	43 792	2 890	2 820	9	8
Spain	39 921	3 410	14 300	7	13
Sweden	8 833	3 140	25 400	3	3
Switzerland	7 170	3 380	38 330	4	3
United Kingdom	59 762	3 340	25 120	2	5
United States of America	285 926	3 770	34 280	2	8
<b>Transition Economies</b>					
Albania	3 145	2 940	1 340	48	7
Armenia	3 788	2 000	570	12	15
Azerbaijan	8 096	2 380	650	26	4
Belarus	10 147	2 960	1 290	13	8
Bosnia and Herzegovina	4 067	2 730	1 240	5	...
Bulgaria	7 867	2 630	1 650	7	10
Croatia	4 655	2 620	4 550	8	9
Czech Republic	10 260	3 080	5 310	8	4
Estonia	1 377	3 020	3 870	11	8
Georgia	5 239	2 290	590	19	25
Hungary	9 917	3 500	4 830	10	8
Kazakstan	16 095	2 360	1 350	17	5
Kyrgyzstan	4 986	2 860	280	25	18
Latvia	2 406	2 790	3 230	12	9
Lithuania	3 689	3 260	3 350	12	12
Macedonia, Former Yug. Rep. of	2 044	2 660	1 690	12	12
Moldova, Rep. of	4 285	2 680	400	22	63
Poland	38 577	3 390	4 230	21	8
Romania	22 388	3 340	1 720	14	4
Russian Federation	144 664	2 940	1 750	10	1
Serbia and Montenegro	10 538	2 720	930	19	14
Slovakia	5 403	2 910	3 760	9	3

## 10.1 Selected Food and Agriculture Indicators by Country

Region/Country	Population 2001 (thousands)	Per caput food availability 1999-2001 (kcal/day)	Per caput GNI 2001 (US\$)	Agricultural labour force in total labour force 2001 (%)	Agricultural exports in total export value 2001 (%)
Slovenia	1 985	3 060	9 760	2	4
Tajikistan	6 135	1 720	180	33	14
Turkmenistan	4 835	2 760	950	33	4
Ukraine	49 112	2 900	720	14	12
Uzbekistan	25 257	2 270	550	27	29
<b>DEVELOPING COUNTRIES</b>					
<b>Latin America &amp; the Caribbean</b>					
Anguilla	12	...	...	...	...
Antigua and Barbuda	65	2 370	9 150	23	0
Argentina	37 488	3 180	6 940	10	41
Aruba	104	...	...	...	1
Bahamas	308	2 720	...	4	1
Barbados	268	2 960	9 750	4	29
Belize	231	2 860	2 940	30	67
Bolivia	8 516	2 240	950	44	31
British Virgin Island	24	...	...	...	0
Brazil	172 559	3 000	3 070	16	28
Cayman Islands	40	...	...	...	0
Chile	15 402	2 850	4 590	15	18
Colombia	42 803	2 570	1 890	20	22
Costa Rica	4 112	2 760	4 060	20	32
Cuba	11 237	2 610	...	14	42
Dominica	71	2 980	3 200	22	44
Dominican Republic	8 507	2 320	2 230	16	67
Ecuador	12 880	2 730	1 080	25	32
El Salvador	6 400	2 460	2 040	28	16
Falkland Is. (Malvinas)	2	...	...	0	...
French Guiana	170	...	...	...	...
Grenada	94	2 740	3 610	23	28
Guadeloupe	431	...	...	3	...
Guatemala	11 687	2 160	1 680	45	52
Guyana	763	2 540	840	17	35
Haiti	8 270	2 040	480	62	7
Honduras	6 575	2 400	900	31	49
Jamaica	2 598	2 690	2 800	20	16
Martinique	386	...	...	4	...
Mexico	100 368	3 150	5 530	21	9
Montserrat	3	...	...	0	3
Netherlands Antille	217	2 580	...	0	1
Nicaragua	5 208	2 250	...	19	62
Panama	2 899	2 250	3 260	20	34
Paraguay	5 636	2 560	1 350	34	66
Peru	26 093	2 600	1 980	30	9
Puerto Rico	3 952	...	10 950	2	...
Saint Kitts and Nevis	38	2 980	6 630	24	18
Saint Lucia	149	2 920	3 950	23	38
Saint Vincent/Grenadines	114	2 640	2 740	23	66
Suriname	419	2 630	1 810	19	16
Trinidad and Tobago	1 300	2 710	5 960	9	5
Turks and Caicos Islands	17	...	...	...	...
Uruguay	3 361	2 840	5 710	13	42
US Virgin Islands	122	...	...	...	...
Venezuela	24 632	2 330	4 760	8	1
<b>Near East &amp; North Africa</b>					
Afghanistan	22 474	...	...	67	...
Algeria	30 841	2 970	1 650	24	0
Bahrain	652	...	11 130	1	0
Cyprus	790	3 260	12 320	8	41

### 10.1 Selected Food and Agriculture Indicators by Country

Region/Country	Population 2001 (thousands)	Per caput food availability 1999-2001 (kcal/day)	Per caput GNI 2001 (US\$)	Agricultural labour force in total labour force 2001 (%)	Agricultural exports in total export value 2001 (%)
Egypt	69 080	3 370	1 530	33	11
Iran, Islamic Rep. of	71 369	2 930	1 680	26	4
Iraq	23 584	...	...	10	0
Jordan	5 051	2 740	1 750 (c)	11	14
Kuwait	1 971	3 150	18 270	1	0
Lebanon	3 556	3 170	4 010	3	19
Libyan Arab Jamahiriya	5 408	3 320	...	6	0
Morocco	30 430	3 000	1 190	35	10
Oman	2 622	...	...	35	6
Qatar	575	...	...	1	0
Saudi Arabia	21 028	2 840	8 460	9	1
Syrian Arab Republic	16 610	3 040	1 040	27	29
Tunisia	9 562	3 340	2 070	24	7
Turkey	67 632	3 360	2 530	45	13
United Arab Emirates	2 654	3 330	...	5	1
Yemen	19 114	2 050	450	50	3
<b>Sub-Saharan Africa</b>					
Angola	13 527	1 900	500	72	0
Benin	6 446	2 480	380	53	45
Botswana	1 554	2 270	3 100	44	5
Burkina Faso	11 856	2 460	220	92	72
Burundi	6 502	1 610	100	90	81
Cameroon	15 203	2 240	580	58	24
Cape Verde	437	3 290	1 340	22	1
Central African Republic	3 782	1 960	260	72	7
Chad	8 135	2 140	200	74	45
Comoros	727	1 750	380	73	29
Congo, Democratic Rep.	52 522	1 570	80	63	4
Congo, Rep. of	3 110	2 210	640	40	1
Côte d'Ivoire	16 349	2 590	630	48	47
Djibouti	644	2 160	890	79	13
Equatorial Guinea	470	...	700	70	2
Eritrea	3 816	1 670	160	77	7
Ethiopia	64 459	1 910	100	82	28
Gabon	1 262	2 580	3 160	37	0
Gambia	1 337	2 280	320	79	46
Ghana	19 734	2 620	290	57	20
Guinea	8 274	2 330	410	83	2
Guinea-Bissau	1 227	2 440	160	83	70
Kenya	31 293	2 040	350	75	41
Lesotho	2 057	2 310	530	38	3
Liberia	3 108	2 080	140	67	16
Madagascar	16 437	2 070	260	74	12
Malawi	11 572	2 160	160	82	92
Mali	11 677	2 370	230	80	21
Mauritania	2 747	2 730	360	53	9
Mauritius	1 171	2 980	3 830	12	21
Mozambique	18 644	1 950	210	80	6
Namibia	1 788	2 700	1 960	41	16
Niger	11 227	2 130	180	88	22
Nigeria	116 929	2 770	290	32	1
Reunion	732	...	...	3	...
Rwanda	7 949	1 990	220	90	39
Saint Helena	6	...	...	...	...
Sao Tome and Principe	140	2 460	280	64	35

### 10.1 Selected Food and Agriculture Indicators by Country

Region/Country	Population 2001 (thousands)	Per caput food availability 1999-2001 (kcal/day)	Per caput GNI 2001 (US\$)	Agricultural labour force in total labour force 2001 (%)	Agricultural exports in total export value 2001 (%)
Senegal	9 662	2 270	490	73	14
Seychelles	81	2 430	6 530	79	1
Sierra Leone	4 587	1 930	140	62	25
Somalia	9 157	...	...	71	47
Sudan	31 809	2 290	340	60	19
Swaziland	938	2 560	1 300	33	33
Tanzania, United Rep.	35 965	1 970	270 (d)	80	53
Togo	4 657	2 320	270	59	25
Uganda	24 023	2 370	260	80	31
Western Sahara	260	...	...	35	...
Zambia	10 649	1 900	320	69	9
Zimbabwe	12 852	2 100	480	62	41
<b>East &amp; Southeast Asia</b>					
Brunei Darussalam	335	2 770	...	1	0
Cambodia	13 441	1 970	270	70	6
China	1 292 382	2 970	890 (e)	66	...
Timor Leste	750	...	520	82	...
Indonesia	214 840	2 900	690	48	7
Korea, Dem. People's Rep	22 428	2 180	...	29	2
Korea, Republic of	47 069	3 070	9 460	9	1
Laos	5 403	2 280	300	76	9
Malaysia	22 633	2 920	3 330	18	6
Mongolia	2 559	2 070	400	24	32
Myanmar	48 364	2 810	...	70	20
Philippines	77 131	2 370	1 030	39	4
Singapore	4 108	...	21 500	0	2
Thailand	63 584	2 470	1 940	56	12
Viet Nam	79 175	2 500	410	67	13
<b>South Asia</b>					
Bangladesh	140 369	2 160	360	55	1
Bhutan	2 141	...	640	94	14
India	1 025 096	2 490	460	59	12
Maldives	300	2 560	2 000	21	0
Nepal	23 593	2 440	250	93	8
Pakistan	144 971	2 460	420	47	11
Sri Lanka	19 104	2 330	880	45	20
<b>Oceania Developing</b>					
American Samoa	70	...	...	...	0
Cook Islands	20	...	...	...	2
Fiji Islands	823	2 780	2 150	40	30
French Polynesia	237	2 880	...	...	2
Guam	158	...	...	...	0
Kiribati	84	2 920	830	...	38
Marshall Islands	52	...	2 190	...	...
Micronesia, Fed.States of	126	...	2 150	...	19
Nauru	13	...	...	...	0
New Caledonia	220	2 770	...	...	0
Niue Island	2	...	...	-	79
Northern Mariana Is.	76	...	...	26	...
Palau	20	...	...	...	...
Papua New Guinea	4 920	2 180	580	74	12
Samoa	159	...	1 490	...	34
Solomon Islands	463	2 240	590	73	73
Tokelau Islands	1	...	...	0	0
Tonga	99	...	1 530	...	67
Tuvalu	10	...	...	...	0
Vanuatu	202	2 580	1 050	...	49
Wallis and Futuna Is.	15	...	...	...	7



### 10.1 Selected Food and Agriculture Indicators by Country

Region/Country	Population 2001 (thousands)	Per caput food availability 1999-2001 (kcal/day)	Per caput GNI 2001 (US\$)	Agricultural labour force in total labour force 2001 (%)	Agricultural exports in total export value 2001 (%)
<b>North America Developing</b>				...	...
Bermuda	63	2 950	...	3	0
Greenland	56	...	...	...	0
Saint Pierre and Miquelon	7	...	...	0	0

(a) Data refer to Belgium and Luxembourg

(b) Including French overseas departments of French Guiana, Guadeloupe, Martinique and Réunion

(c) Data refer to East Bank

(d) Data refer to Tanzania Mainland

(e) Data refer to China Mainland

## **ANNEXES**

## Annex I: Glossary of Symbols and Acronyms used

US\$	United States dollars
%	percent
Int.\$	International dollars
MLN	million
ha	hectare
MT	metric tonne
m	metre
km	kilometre
km <sup>3</sup>	cubic kilometres
m <sup>3</sup>	cubic metres
kcal/day	calories per day
...	data not available
0 or 0.0	zero or less than half of unit shown

To divide decimals from whole numbers, a full stop (.) is used

ECLAC	Economic Commission for Latin America and the Caribbean
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
ESSA	Socio-Economic Statistics and Analysis Service of Statistics Division (FAO)
ILO	International Labour Organization
IMF	International Monetary Fund
OECD	Organisation for Economic Co-operation and Development
UN	United Nations

## Annex II: Sources

The majority of tables are based on data available in the FAO Statistical database (FAOSTAT) as of mid October 2003. Other sources used are listed below:

Table	Source
1.1, 1.2	<b>World Bank</b> , <i>World Development Indicators, 2003</i> (CD Rom) UN Statistics Division and its regional bodies (Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP), Economic and Social Commission for Western Asia (ESCWA)) (Statistical Yearbooks) Economist Intelligence Unit. Statistical Database ( <a href="http://www.eiu.com">www.eiu.com</a> ) Organisation for Economic Co-operation and Development (OECD) Statistical Database ( <a href="http://www.SourceOECD.org">www.SourceOECD.org</a> ) National statistical yearbooks and other national sources
1.3-1.5	Socio-Economic Statistics and Analysis Service of Statistics Division (ESSA). External Assistance to Agriculture Database
1.6	<b>OECD</b> . 2003. <i>Agricultural Policies in OECD Countries: Monitoring and Evaluation, 16<sup>th</sup> edition, 2003</i> . Paris.
1.7	<b>International Monetary Fund (IMF)</b> . 2001. <i>Government Finance Statistics Yearbook, 2001</i> . Washington DC.
3.3	<b>FAO</b> . 2003. <i>Global Forest Resource Assessment 2000 – Summary Report</i> . Rome
3.7	<b>United Nations (UN)</b> . 2002. <i>Industrial Commodity Statistics, Yearbook, Vol.33, 1999</i> . New York
4.2	<b>I.A. Shikomanov</b> . 1996. <i>Assessment of water resources and water availability in the world (Scientific and Technical Report)</i> . St. Petersburg, Russia. State Hydrological Institute
4.3, 4.4	FAO AQUASTAT ( <a href="http://www.fao.org/waicent/faoinfo/agricult/agl/aglw/aquastat/main/index.stm">http://www.fao.org/waicent/faoinfo/agricult/agl/aglw/aquastat/main/index.stm</a> )
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## Annex III: Country Group Composition

### Developed Countries

#### Industrialized Countries

Andorra	Greece	New Zealand
Australia	Holy See	Norway
Austria	Iceland	Portugal
Belgium-Luxembourg	Ireland	San Marino
Canada	Israel	South Africa
Denmark	Italy	Spain
Faeroe Islands	Japan	Sweden
Finland	Liechtenstein	Switzerland
France	Malta	United Kingdom
Germany	Monaco	United States of America
Gibraltar	Netherlands	

#### Transition Economies

Albania	Former Yug. Republic of	Romania
Armenia	Macedonia	Russian Federation
Azerbaijan	Georgia	Serbia and Montenegro
Belarus	Hungary	Slovakia
Bosnia and Herzegovina	Kazakhstan	Slovenia
Bulgaria	Kyrgyzstan	Tajikistan
Croatia	Latvia	Turkmenistan
Czech Republic	Lithuania	Ukraine
Estonia	Moldova, Republic of	Uzbekistan
	Poland	

### Developing Countries

#### Latin America and Caribbean

Anguilla	Dominican Republic	Nicaragua
Antigua and Barbuda	Ecuador	Panama
Argentina	El Salvador	Paraguay
Aruba	Falkland Islands	Peru
Bahamas	French Guiana	Puerto Rico
Barbados	Grenada	St. Kitts and Nevis
Belize	Guadeloupe	St. Lucia
Bolivia	Guatemala	St. Vincent/Grenadines
Brazil	Guyana	Suriname
British Virgin Islands	Haiti	Trinidad and Tobago
Cayman Islands	Honduras	Turks and Caicos Islands
Chile	Jamaica	Uruguay
Colombia	Martinique	US Virgin Islands
Costa Rica	Mexico	Venezuela
Cuba	Montserrat	
Dominica	Netherlands Antilles	

#### Near East and North Africa

Afghanistan	Egypt	Jordan
Algeria	Gaza Strip	Kuwait
Bahrain	Iran, Islamic Republic of	Lebanon
Cyprus	Iraq	Libyan Arab Jamahiriya

Morocco  
Oman  
Qatar  
Saudi Arabia

Syrian Arab Republic  
Tunisia  
Turkey  
United Arab Emirates

West Bank  
Yemen

#### Sub-Saharan Africa

Angola  
Benin  
Botswana  
British Indian Ocean Terr.  
Burkina Faso  
Burundi  
Cameroon  
Cape Verde  
Central African Republic  
Chad  
Comoros  
Congo, Dem. Republic of  
Congo, Republic of  
Côte d'Ivoire  
Djibouti  
Equatorial Guinea  
Eritrea

Ethiopia  
Gabon  
Gambia  
Ghana  
Guinea  
Guinea-Bissau  
Kenya  
Lesotho  
Liberia  
Madagascar  
Malawi  
Mali  
Mauritania  
Mauritius  
Mozambique  
Namibia  
Niger

Nigeria  
Réunion  
Rwanda  
Sao Tome and Principe  
Senegal  
Seychelles  
Sierra Leone  
Somalia  
St. Helena  
Sudan  
Swaziland  
Tanzania, United Republic of  
Togo  
Uganda  
Western Sahara  
Zambia  
Zimbabwe

#### East and Southeast Asia

Brunei Darussalam  
Cambodia  
China  
Indonesia  
Korea, Dem. People's Republic

Korea, Republic of  
Laos  
Malaysia  
Mongolia  
Myanmar

Philippines  
Singapore  
Thailand  
Timor-Leste  
Viet Nam

#### South Asia

Bangladesh  
India  
Nepal

Sri Lanka  
Bhutan  
Maldives

Pakistan

#### Oceania, developing

American Samoa  
Canton and Enderbury Islands  
Christmas Island  
Cocos Islands  
Cook Islands  
Fiji  
French Polynesia  
Guam  
Johnston Island  
Kiribati  
Marshall Islands

Micronesia, Federal States of  
Midway Islands  
Nauru  
New Caledonia  
Niue Island  
Norfolk Island  
Northern Mariana Islands  
Pacific Islands (Trust Terr.)  
Palau  
Papua New Guinea  
Pitcairn Island

Samoa  
Solomon Islands  
Tokelau  
Tonga  
Tuvalu  
US Minor Islands  
Vanuatu  
Wake Island  
Wallis and Futuna Islands

#### North America, developing

Bermuda

Greenland

St. Pierre et Miquelon

## Continental Groupings

### Africa

Algeria	Ethiopia	Nigeria
Angola	Gabon	Réunion
Benin	Gambia	Rwanda
Botswana	Ghana	Sao Tome and Principe
British Indian Ocean Terr.	Guinea	Senegal
Burkina Faso	Guinea-Bissau	Seychelles
Burundi	Kenya	Sierra Leone
Cameroon	Lesotho	Somalia
Cape Verde	Liberia	South Africa
Central African Republic	Libyan Arab Jamahiriya	St. Helena
Chad	Madagascar	Sudan
Comoros	Malawi	Swaziland
Congo, Dem. Republic of	Mali	Tanzania, United Republic of
Congo, Republic of	Mauritania	Togo
Côte d'Ivoire	Mauritius	Tunisia
Djibouti	Morocco	Uganda
Egypt	Mozambique	Western Sahara
Equatorial Guinea	Namibia	Zambia
Eritrea	Niger	Zimbabwe

### Asia

Afghanistan	Japan	Qatar
Armenia	Jordan	Saudi Arabia
Azerbaijan	Kazakhstan	Singapore
Bahrain	Korea, Dem. People's Republic	Sri Lanka
Bangladesh	Korea, Republic of	Syrian Arab Republic
Bhutan	Kuwait	Tajikistan
Brunei Darussalam	Kyrgyzstan	Thailand
Cambodia	Laos	Timor-Leste
China	Lebanon	Turkey
Cyprus	Malaysia	Turkmenistan
Gaza Strip	Maldives	United Arab Emirates
Georgia	Mongolia	Uzbekistan
India	Myanmar	Viet Nam
Indonesia	Nepal	West Bank
Iran, Islamic Republic of	Oman	Yemen
Iraq	Pakistan	
Israel	Philippines	

### Latin America

Argentina	El Salvador	Panama
Belize	Falkland Islands	Paraguay
Bolivia	French Guiana	Peru
Brazil	Guatemala	Suriname
Chile	Guyana	Uruguay
Colombia	Honduras	Venezuela
Costa Rica	Mexico	
Ecuador	Nicaragua	

### Caribbean

Anguilla	Aruba	Barbados
Antigua and Barbuda	Bahamas	British Virgin Islands

Cayman Islands  
Cuba  
Dominica  
Dominican Republic  
Grenada  
Guadeloupe

Haiti  
Jamaica  
Martinique  
Montserrat  
Netherlands Antilles  
Puerto Rico

St. Kitts and Nevis  
St. Lucia  
St. Vincent/Grenadines  
Trinidad and Tobago  
Turks and Caicos Islands  
US Virgin Islands

#### North America

Bermuda  
Canada

Greenland  
St. Pierre et Miquelon

United States of America

#### Oceania

American Samoa  
Australia  
Canton and Enderbury Islands  
Christmas Island  
Cocos Islands  
Cook Islands  
Fiji  
French Polynesia  
Guam  
Johnston Island  
Kiribati

Marshall Islands  
Micronesia, Federal States of  
Midway Islands  
Nauru  
New Caledonia  
New Zealand  
Niue Island  
Norfolk Island  
Northern Mariana Islands  
Pacific Islands (Trust Terr.)  
Palau

Papua New Guinea  
Pitcairn Island  
Samoa  
Solomon Islands  
Tokelau  
Tonga  
Tuvalu  
US Minor Islands  
Vanuatu  
Wake Island  
Wallis and Futuna Islands

#### Europe

Albania  
Andorra  
Austria  
Belarus  
Belgium-Luxembourg  
Bosnia and Herzegovina  
Bulgaria  
Croatia  
Czech Republic  
Denmark  
Estonia  
Faeroe Islands  
Finland  
Former Yug. Republic of  
Macedonia

France  
Germany  
Gibraltar  
Greece  
Holy See  
Hungary  
Iceland  
Ireland  
Italy  
Latvia  
Liechtenstein  
Lithuania  
Malta  
Moldova, Republic of  
Monaco

Netherlands  
Norway  
Poland  
Portugal  
Romania  
Russian Federation  
San Marino  
Serbia and Montenegro  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
United Kingdom  
Ukraine



## **Annex IV: Concepts and Definitions**

### **Macroeconomic**

#### Agriculture, value added

Agriculture corresponds to the International Standard Industrial Classification (ISIC) divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of the sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by ISIC, revision 3. Data are in current U.S. dollars.

#### Gross National Income (GNI) per caput, Atlas method

GNI per caput (formerly Gross National Product (GNP) per caput) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, which is originally calculated in national currency, is for comparisons across economies usually converted to U.S. dollars at official exchange rates, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This applies a conversion factor that averages the exchange rate for a given year and the two preceding years, adjusted for differences in rates of inflation between the country, and certain highly industrialised countries. For the years up to 2000, the latter countries were France, Germany, Japan, the United Kingdom, and the United States. For 2001, these countries were expanded to include the Euro Zone, Japan, the United Kingdom, and the United States.

#### Gross Capital Formation

Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Fixed assets include land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Inventories are stocks of goods held by firms to meet temporary or unexpected fluctuations in production or sales, and "work in progress". According to the 1993 SNA, net acquisitions of valuables are also considered as capital formation.

#### Gross Domestic Product (GDP)

GDP measures the total output of goods and services for final use occurring within the domestic territory of a given country, regardless of the allocation to domestic and foreign claims. GDP at purchaser values is the sum of gross value added by all resident and non-resident producers in the economy plus any taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

## **External Assistance to Agriculture**

### External Assistance to Agriculture (EAA)

EAA refers to the concessional and non-concessional commitments made by bilateral and multilateral donors to developing countries and countries in transition for the development of agriculture in a broad sense which includes: land and water; research, training and extension; inputs; agricultural services; crop production; livestock; fisheries; forestry; agriculture (others, not elsewhere specified); environment protection; rural development/infrastructure; manufacturing of inputs; regional and river development; and agro-industries.

#### *Concessional and non-concessional*

If the commitment has a grant element not less than 25% it is considered as concessional otherwise it is considered as non-concessional.

#### *Multilateral*

Multilateral commitments are those made through an institution which:

- conducts all or part of its activities in favour of development;
- is an international agency, institution or organization whose members are Governments or a fund managed autonomously by such an agency; and
- pools funds so that they lose their identity and become an integral part of its financial assets.

#### *Bilateral*

Bilateral commitments are those where the donor effectively controls the disposal of the funds by specifying the recipient or other aspects of the disbursement (e.g. purpose, terms, total amount and re-use of any repayments).

#### *Total Assistance*

This represents total official commitments (bilateral and multilateral, concessional and non-concessional) to aid recipients (developing countries and countries in transition) at current prices.

### Government Expenditure

Government expenditure refers to all non-repayable payments, whether capital or current, required or not by government. Expenditures are shown by function or purpose at different levels of government administration - Central Government; State, Region or Province; and local governments. The data given in this document refer to the share of expenditure on agriculture, forestry, fishery and hunting (function) in the total government expenditure.

### Gross Fixed Investment

This refers to total annual average investment in fixed assets excluding working capital.

## **Population**

### Agricultural Population

This refers to all persons whose livelihood depends on agriculture. It comprises all persons actively assisting in the operation of family farms or businesses, whether as employers, own-account workers, salaried employees or unpaid workers and their non-working dependants.

### Economically Active Population (total labour force)

This refers to all employed and unemployed persons (including those seeking work for the first time). It covers employers; self-employed workers; salaried employees; wage earners; unpaid workers assisting in a family, farm or business operation; members of producers' cooperatives; and members of the armed forces.

### Economically Active Population in Agriculture (agricultural labour force)

The economically active population in agriculture is that part of the economically active population engaged in or seeking work in agriculture, hunting, fishing or forestry.

### Rural Population

This refers to the population residing in rural areas.. Usually the urban areas and hence the urban population are defined and the residual is taken as rural. In practice, the criteria adopted for distinguishing between urban and rural areas vary among countries. However, these criteria can be roughly divided into three major groups: classification of localities of a certain size as urban; classification of administrative centres of minor civil divisions as urban; and classification of centres of minor civil divisions on a chosen criterion which may include type of local government, number of inhabitants or proportion of population engaged in agriculture.

### Total Population

Generally refers to the present-in-area (de facto) population within the present national boundaries.

## **Land**

### Arable Land

Arable land refers to land under temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years). This category of land does not include abandoned land resulting from shifting cultivation. "Arable land" is not meant to indicate the amount of land that is potentially cultivable.

### Forest Cover Land

Land with tree crown cover (or equivalent stocking level) of more than 10% and area of more than 0.5 ha. The trees should be able to reach a minimum height of 5 m at maturity in situ. This may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or open forest formations with a continuous vegetation cover in which tree crown cover exceeds 10%. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of 10% or tree height of 5 m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural

causes but which are expected to revert to forest. These include: forest nurseries and seed orchards that constitute an integral part of the forest; forest roads, cleared tracts, firebreaks and other small open areas; forests in national parks, nature reserves and other protected areas such as those of specific scientific, historical, cultural or spiritual interest; windbreaks and shelterbelts of trees with an area of more than 0.5 ha and width of more than 20 m; plantations primarily used for forestry purposes, including rubberwood plantations and cork oak stands. Excludes: land predominantly used for agricultural practices

#### Land Area

Total country area, excluding area under inland water bodies. The definition of inland water bodies generally includes major rivers and lakes.

#### Land Availability

This refers to arable land plus land under permanent crops.

#### Land under Permanent Crops

Land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee and rubber. This category includes land under flowering shrubs, fruit trees, nut trees and vines, but excludes land under trees grown for wood or timber.

#### Total Area

The total area of the country, including area under inland water bodies.

### **Agricultural Inputs**

#### Agricultural Tractors and Threshers/Harvesters

Agricultural tractors generally refer to wheel and crawler tractors (excluding garden tractors) used in agriculture. Harvester and threshers refer to self-propelled machines that reap and thresh in one operation.

#### Fertilizer Consumption

Fertilizer consumption refers to the total amount of fertilizers used. This is obtained by adding the volumes of nitrogenous, phosphate and potash fertilizers expressed in terms of plant nutrients (N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O). The time reference for fertilizer consumption is the crop year (July through June).

#### Fertilizer Production

Fertilizer production includes nitrogenous, phosphate and potash fertilizers. Production based on imported ammonia, phosphoric acid or rock phosphate is considered as national production, while that based on imported finished fertilizers (ammonium phosphate, potassium chloride, etc.) is excluded from national production to avoid double counting at the World level.

#### Pesticides

Pesticides refers to insecticides, fungicides, herbicides, disinfectants and any substance intended for preventing, destroying, attracting, repelling, or controlling any pest including unwanted species of plants or animals during the production, storage, transport, distribution,

and processing of food, agricultural commodities, or animal feeds of which may be administered to animals for the control of ectoparasites.

#### Pesticides Production

This refers to the total industrial production of each type of pesticide within the national boundaries of each country during the reference period .

#### Pesticides Trade

Refers to the value of all types of pesticides provided to (exports) or received (imported) from the rest of the world. Differences between figures given for total exports and total imports at the world level may be due to several factors, e.g. the time lag between the dispatch of goods from exporting country and their arrival in the importing country; the use of different classification of the same product by different countries; or the fact that some countries supply data on general trade while others give data on special trade.

### **Water Resources and Irrigation**

#### Freshwater Availability (internal renewable freshwater resources)

Refers to the average annual flow of rivers and groundwater generated from endogenous precipitation.

#### Irrigated Land

This refers to the areas equipped to provide water to crops. It includes areas equipped for full or partial control irrigation, spate irrigation areas, and equipped wetland or inland valley bottoms. It should be noted that definitions on irrigation vary between countries.

### **Agricultural Production and Trade**

#### Agricultural Production

This refers to the aggregate volume of agricultural production in the narrow sense, i.e. excluding fishery and forestry products. In order to obtain these figures the aggregate production quantities of each agricultural commodity are weighted by 1989-91 average international commodity prices and then summed for each year. When calculating the aggregates, all intermediate primary inputs of agricultural origin are deducted. In other words, amounts of seed and feed are subtracted from the production data in order to avoid double counting. Processed and semi-processed commodities such as bran, oilcakes, meals and molasses have been completely excluded from the calculations at all stages. The "international prices", expressed in so-called "international dollars", are derived using the Geary-Khamis formula for the agricultural sector. This method assigns a single producer price to each commodity. For example, one metric ton of wheat has the same price regardless of the country in which it was produced. The currency unit in which the prices are expressed has no influence on the indices.

#### Crop Production

Crop production refers to the actual harvested production from the field or orchard and gardens, excluding harvesting losses and that part of crop not harvested for any reason. Crop production therefore includes the quantities of the commodity sold in the market and the quantities consumed or used by the producers. The time reference for statistics on production of crops is based on the calendar year. That is to say, the data for any particular crop are reported under the calendar year in which the entire harvest or bulk of it took place.

### Food Production

The food production aggregate includes the commodities that are considered edible and that contain nutrients. Accordingly, coffee and tea are excluded along with inedible commodities, as, although edible, they have practically no nutritive value.

### Meat Production

The meat production aggregate is computed based on data for production from indigenous animals, which takes account of the meat equivalent of exported live animals but excludes the meat equivalent of imported live animals. Annual changes in livestock and poultry numbers or in their average live weights are not taken into account.

### Agricultural Trade

This refers to imports and exports pertaining to agriculture in the narrow sense, excluding fishery and forestry products. Differences between figures given for total cereal exports and total cereal imports at the world level may be due to several factors, e.g. the time lag between the dispatch of goods from one exporting country and their arrival in the importing country; the use of different classifications of the same product by different countries; or the fact that some countries supply data on general trade while others give data on special trade.

### Total Merchandise Trade

This refers to total imports and total exports of merchandise. In general, export values are f.o.b. (free on board) and import values are c.i.f. (cost, insurance and freight).

## **Forestry Production and Trade**

### Roundwood

Roundwood (wood in the rough) is wood in its natural state as felled, or otherwise harvested, with or without bark, round, split, roughly squared or other forms (e.g. roots, stumps, burls, etc.). It may also be impregnated (e.g. telegraph poles) or roughly shaped or pointed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the calendar year or forest year period. Commodities included are sawlogs and veneer logs, pulpwood, other industrial roundwood (including pitprops) and fuelwood. The statistics include recorded volumes, as well as estimated unrecorded volumes. Statistics for trade include, as well as roundwood from removals, the estimated roundwood equivalent of chips and particles, wood residues and charcoal.

## **Fishery Production and Trade**

### Aquaculture

The term aquaculture designates the culturing or farming (including harvesting) of aquatic organisms with some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated. For statistical purposes, aquatic organisms harvested by an individual or corporate body which has owned them throughout their rearing period, contribute to aquaculture. Data refer to the output from aquaculture activities designated for final harvest for consumption or other purposes. Data cover fish, molluscs, crustaceans and aquatic organisms, farmed in fresh, brackish and marine waters. Statistics are reported on live weight equivalent and exclude aquatic plants.

### Capture Fisheries (nominal catches concept)

Capture fisheries refer to hunting, collecting and gathering activities directed at removing or collecting live wild aquatic organisms. Data shown refer to nominal catches of fish, crustaceans, molluscs and other aquatic organisms taken for all purposes (commercial, industrial, recreational and subsistence purposes) by all types and classes of fishing units (fishermen, vessels, gear, etc.) operating both in inland, fresh and brackish water areas, and in inshore, offshore and high seas fishing areas. Data exclude aquatic mammals, crocodiles, corals, sponges, shells, pearls and aquatic plants.

The nominal catches concept refers to the landings converted on a live weight basis. Landings refer to the quantities on a landed weight basis. In many fisheries the landed quantities (landings) are identical to the quantities caught (nominal catches). In many other instances the catches on board of fishing vessels or factory ships are gutted, eviscerated, filleted, salted, dried, etc., or reduced to meals and oil. These data require conversion by accurate conversion factors to establish the live weight equivalents (nominal catches) at the time of their capture.

The flag of the vessel performing the essential part of the operation of catching the fish should be considered as the paramount indication of the nationality to be assigned to the catch data. National data cover all quantities caught by fishing crafts flying the flag of the reporting country and landed not only in the domestic harbours of the reporting country but also in foreign harbours. National catch excludes quantities caught by foreign fishing craft and landed in domestic ports.

### Exports and Imports of Fish and Fishery Products

Statistics refer to the values of fisheries commodities imported or exported (including re-exports when applicable). The commodity categories cover products derived from fish production (capture and aquaculture) of fish, crustaceans, molluscs and other aquatic animals, excluding products obtained from aquatic mammals, crocodiles, corals, sponges, shells, pearls and aquatic plants. In general, export values are f.o.b. (free on board) and import values are c.i.f. (cost, insurance and freight). In accordance with the internationally recommended practice, import statistics include fish caught by foreign fishing craft, whether or not processed on board, be landed in domestic ports; export statistics include fish caught by domestic fishing craft, whether or not processed on board or landed in foreign ports.

The totals for the world, developed and developing countries, continents, and regions, are obtained by adding up the imports or exports of each country included in the various groups irrespective of origin or destination of the commodity. Consequently, these totals are by no means to be taken as net trade of the groups to which they refer. Furthermore, differences between figures given for total exports and total imports at the world level may be due to several factors, e.g. the time lapse between the dispatch of goods from the exporting country and their arrival in the importing country; the use of a different classification of the same product by different countries; or the fact that some countries supply trade data on general trade, while others give data on special trade. Two systems of recording trade are in common use (general trade and special trade), differing mainly in the treatment of recording the movement of goods through customs-bounded storage areas (warehouses, free areas, etc.).

### Fish Production

Refers to the aggregate production (capture and aquaculture combined) of freshwater, brackishwater and marine species of fish, crustaceans, molluscs and other aquatic



organisms taken for all commercial, industrial, recreational and subsistence purposes. Data exclude aquatic mammals, crocodiles, corals, sponges, shells, pearls and aquatic plants. Data are expressed in live weight equivalent: that is the weight of fish and shellfish at the time of their capture or harvest.

### Fish Utilization

#### *Human consumption*

Refers to total fish available for human consumption derived through the food balance sheet, for fish by the following equation:

Production, less reduction to meal and other non-food uses, plus imports, less exports, plus or less variation in stocks.

The calculations are made in terms of live weight equivalent.

#### *Other purposes*

Includes utilization of aquatic products for reduction to meal and oil, for feed and bait, ornamental purposes, withdrawals from markets and any one other non-food use of fish production (e.g. fertilizers, medical uses).

### **Food and Nutrition**

#### Food Aid Received

This refers to food aid shipments which represent a transfer of food commodities from donor to recipient countries on a total-grant basis or on highly concessional terms. A food aid shipment record contains information on the year of shipment, donor, recipient, commodity and quantity in terms of thousand metric tons.

Cereal food aid shipments are reported on a global trade year basis (July/June). The series starts from 1970/71. Processed and blended cereals are converted into their grain equivalent by applying the conversion factors included in the Rule of Procedures under the 1999 Food Aid Convention to facilitate comparisons between deliveries of different commodities.

#### Food Availability

This refers to the amount of food available for human consumption as estimated by the FAO Food Balance Sheets (FBS). The FBS are compiled every year by FAO with country-level data on the production and trade of food commodities. Using these data and the available information on seed rates, waste coefficients, stock changes and types of utilization (feed, food, other uses), a supply/utilization account is prepared for each commodity in weight terms.

The food component of a commodity account, which is usually derived as a balancing item, refers to the total amount of the commodity available for human consumption during the year. Besides commodity-by-commodity information, the FAO FBS also provide total food availability estimates by aggregating the food component of all commodities including fishery products after conversion into nutritive values. From these values and the available population estimates, the per caput dietary energy and protein and fat supplies are derived and expressed on a daily basis.



The data shown for food availability refer to the dietary energy supply (DES) per caput/day , during the reference period, in kilocalories. However, the amount of food actually consumed may be lower than the quantity shown as food availability depending on the degree of losses of edible food and nutrients in the household, e.g. during storage, in preparation and cooking, as plate-waste or quantities fed to domestic animals and pets, or thrown away.

### Undernourishment

Undernourishment refers to the condition of people whose dietary energy intake is below that needed for maintaining a healthy and active life. The undernourished refers to those in this condition.

The prevalence of undernourishment refers to the proportion of the population undernourished. The number of persons undernourished is obtained by multiplying estimates of the proportion of undernourished for each country by estimates of the total population

## Annex V: Technical Notes

### Calculation of average annual growth rates

*Tables 1.2 and 5.1- 5.2*

The growth rate in these tables is calculated by fitting a linear trend line, of the form

$$\ln X_t = a + bt$$

to the annual values of the variable  $X$  in the aggregate time series. The parameter  $b$  is estimated by the least-squares method and the percentage growth rate,  $r$ , is then derived as follows:

$$r = [\exp(b) - 1] \times 100$$

*Tables 2.1, 2.2, 11.2 – 11.5, 11.7*

In these tables the percentage growth rate,  $r$ , is calculated between two time points using the following formula:

$$r = \left[ \ln \left( \frac{p_n}{p_1} \right) / n \right] * 100$$

where  $p_n$  and  $p_1$  are the last and first observations in the period respectively,  $n$  is the number of years in the period, and  $\ln$  is the natural logarithm operator.

*Tables 5.4, 5.7 - 5.9, 5.10, 5.13, 5.16, 5.19, 5.22, 5.25, 5.28, 6.1, 6.2, 7.1 – 7.3, 7.8*

In these tables the percentage growth rate,  $r$ , is also calculated between two time points but using the following formula:

$$r = \left[ \left( \frac{p_n}{p_1} \right)^{\frac{1}{n}} - 1 \right] \times 100$$

where  $p_n$  and  $p_1$  are the last and first observations in the period respectively and  $n$  is the number of years in the period.

### Population and labour force estimates and projections

*Tables 2.1 – 2.3 and 9.1 – 9.5*

The population and labour force estimates and projections presented in these tables are based on the products of a coordinated inter-agency work programme involving the UN Population Division, the International Labour Organization (ILO) Bureau of Statistics and the FAO Statistics Division.

The basic framework for the set of demographic estimates and projections are the estimates and projections of the total population by sex and age, which are prepared by the UN Population Division. The estimates and projections of urban/rural population, economically active population (labour force) and the agricultural population are obtained by systematically applying estimates and projections of the relevant population ratios (i.e. the proportion of urban/ rural population, the activity rates by sex and age and the proportion of agricultural population) to the total population. The economically active population in agriculture (agricultural labour force) is obtained by applying the estimates and projections of the proportion of economically active population in agriculture to the total economically active population

The estimates and projections of the total population are biennially revised by the UN Population Division and the figures in the present document are based on the 2000 revision ("World Population Prospects: The 2000 Revision", United Nations, New York, 2001). The estimates and projections of the proportion of urban/rural population, which are also prepared by the UN Population Division, refer to the assessment made in 2001 ("World Urbanisation Prospects: The 2001 Revision", United Nations, New York, 2002). The estimates and projections of the activity rates by sex and age, which are produced by the ILO Bureau of Statistics, are based on the assessment made in 1996 ("Economically Active Population, 1950 – 2010", Fourth Edition, ILO, Geneva, 1996). The estimates of the proportion of the economically active population in agriculture also emanate from the latter assessment while the projections were prepared by the FAO Statistics Division ("World-wide Estimates and Projections of Agricultural Population and Labour Force", FAO, Rome, 2000).

The estimates and projections of the proportion of the population dependent on agriculture (agricultural population) are also prepared by FAO. However, as information on agricultural population derived from population censuses or surveys is scarce, FAO has largely relied on the close relationship existing between the ratio of economically active population in agriculture (EAPA) to the total economically active population (EAP) and the ratio of agricultural population (AP) to total population (TP). For most countries the two ratios are assumed to be equal. Thus applying the EAPA/EAP ratio to the total population derives the agricultural population.

#### Estimation of the proportion of the population undernourished

##### *Table 8.3*

The estimation of the proportion of the population undernourished requires the specification of the distribution of food intake (expressed in terms of dietary energy) within the population and a cut-off point reflecting the minimum dietary energy requirement of the average individual. The part of the distribution below the cut-off point represents the proportion of the population undernourished.

The distribution of food intake in the population is assumed to be lognormal. This means that its parameters can be derived on the basis of the mean and the coefficient of variation of the household per caput food intake. Thus for the purpose of deriving the distribution for all countries at common time periods, the per caput dietary energy supply estimated through the food balance sheets is taken as a proxy for the mean. The coefficient of variation, which reflects the inequality in the distribution, is however estimated on the basis of household income/expenditure survey data. For countries where the appropriate household survey data are not available the coefficient of variation is estimated by certain indirect procedures. Given the mean and the coefficient of variation, the parameters of the lognormal distribution of food intake are estimated as follows:

$$\mu = \log_e \bar{x} - [\log_e \{CV^2(x) + 1\}] / 2$$

$$\sigma = [\log_e \{CV^2(x) + 1\}]^{0.5}$$

where  $\bar{x}$  and  $CV(x)$  are the mean and coefficient of variation respectively of the distribution of food intake.

Regarding the minimum dietary energy requirement used as the cut-off point, the procedure is to first specify the sex-age specific minimum requirements. These are then averaged, using the proportion of the population in the different sex-age groups as weight, to reflect the minimum energy requirement of the average individual in the population.

Thus if the cut-off point is denoted by  $r_L$  the proportion of the population undernourished is derived as follows:

$$P(u) = \Phi \{(\log_e r_L - \mu) / \sigma\}$$

where the expression on the right hand side refers to the proportion below  $\log_e r_L$  in the normal distribution with mean  $\mu$  and standard deviation  $\sigma$ .

#### Global Food Security Indicators

##### Table 8.6

FAO uses six indicators to monitor changes in Global Food Security. The first indicator “Ratio of Five Major Grain Exporters’ Supplies to Requirements” is used to monitor and assess the potential for the five major wheat and coarse grain exporters to meet the global import demand for those grains. The indicator is derived as the ratio of the sum of the five major exporter’s production, imports and opening stocks to their total domestic utilization plus exports.

The second indicator “Closing Stocks as a percentage of Total Disappearance of Major Cereal Exporters” is another measure of the exporters’ potential to meet world import demand. In order to capture the supply and demand dynamics of the world trade, this indicator also includes rice along with coarse grains and wheat. It is derived as the ratio of the projected ending stocks in the major exporting countries to total disappearance (i.e. domestic consumption plus exports),

The third indicator “Changes in Cereal Production in China, India and CIS Republics” measures changes in cereal production among the major cereal importing countries (China, India and the CIS) against the trend and the preceding year’s value.

The focus of the fourth and fifth indicators, i.e. “Changes in Cereal Production in Low-income Food Deficit Countries (LIFDCs)” and “Changes in Cereal Production in LIFDCs less China and India”, is on changes in aggregate cereal production of LIFDCs, which includes the countries most vulnerable to fluctuations in food supplies and international prices.

The sixth indicator “Export Price Movements” provides a comparison of export prices for the major cereals.

This report shows a broad range of statistics pertaining to world food and agriculture. It presents, where appropriate, the differences between developed and developing countries, continents and regions. It is hoped that managers and policy-makers dealing with international issues relating to food and agriculture will find the tables useful.

The tables are organized in sections covering: agriculture macroeconomic indicators, population and labour force, land use and agricultural inputs, water resources and irrigation, agricultural production and trade, forestry production and trade, fishery production and trade, food nutrition and food security.

Figures given refer to the most recent period for which data are available and, where relevant, for selected benchmark periods to allow analysis of trends over time.