



Annex 1

Countries and commodities covered

Developing countries

Africa, sub-Saharan	Latin America and Caribbean	Near East and North Africa	South Asia	East Asia
Angola	Argentina	Afghanistan	Bangladesh	Cambodia
Benin	Bolivia	Algeria	India	China
Botswana	Brazil	Egypt	Maldives	Dem. Rep. of Korea
Burkina Faso	Chile	Iran, Islamic Rep.	Nepal	Indonesia
Burundi	Colombia	Iraq	Pakistan	Lao People's Dem. Rep.
Cameroon	Costa Rica	Jordan	Sri Lanka	Malaysia
Central Afr. Rep.	Cuba	Lebanon		Mongolia
Chad	Dominican Rep.	Libyan Arab Yam.		Myanmar
Congo	Ecuador	Morocco		Philippines
Côte d'Ivoire	El Salvador	Saudi Arabia		Rep. of Korea
Dem. Rep. of Congo	Guatemala	Syrian Arab Rep.		Thailand
Eritrea	Guyana	Tunisia		Viet Nam
Ethiopia	Haiti	Turkey		East Asia, other ⁴
Gabon	Honduras	Yemen		
Gambia	Jamaica	Near East, other ³		
Ghana	Mexico			
Guinea	Nicaragua			
Kenya	Panama			
Lesotho	Paraguay			
Liberia	Peru			
Madagascar	Suriname			
Malawi	Trinidad and Tobago			
Mali	Uruguay			
Mauritania	Venezuela			
Mauritius	Latin America, other ²			
Mozambique				
Namibia				
Niger				
Nigeria				
Rwanda				
Senegal				
Sierra Leone				
Somalia				
Sudan				
Swaziland				
Togo				
Uganda				
United Rep. of Tanzania				
Zambia				
Zimbabwe				
Sub-Saharan Africa, other ¹				

1 Cape Verde, Comoros, Djibouti, Guinea Bissau, Sao Tomé and Príncipe, Seychelles.

2 Antigua, Bahamas, Barbados, Belize, Bermuda, Dominica, Grenada, Netherland Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent/Grenadines.

3 Cyprus, Kuwait, United Arab Emirates.

4 Brunei, Macau, Solomon Islands, Fiji, French Polynesia, New Caledonia, Vanuatu, Papua New Guinea, Kiribati.



Countries and commodities covered (continued)

Industrial countries

European Union ¹	Other Western Europe	North America	Oceania	Other
Austria Belgium Denmark Finland France Germany Greece Ireland Italy Luxembourg Netherlands Portugal Spain Sweden United Kingdom	Iceland Malta Norway Switzerland	Canada United States	Australia New Zealand	Israel Japan South Africa

¹ In the analysis the European Union was treated as one country group (EU-15).

Transition countries

Eastern Europe and the former Yugoslavia SFR	Commonwealth of Independent States	Baltic States
Albania Bosnia and Herzegovina Bulgaria Croatia Czech Republic Hungary Poland Romania Slovakia Slovenia The Former Yugoslav Rep. of Macedonia Yugoslavia, Fed. Rep.	Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Moldova Republic Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan	Estonia Latvia Lithuania



Countries and commodities covered (continued)

Commodities

Crops

Wheat
 Rice (paddy)
 Maize
 Barley
 Millet
 Sorghum
 Other cereals
 Potato
 Sweet potato and yams
 Cassava
 Other roots
 Plantains
 Sugar, raw¹
 Pulses
 Vegetables
 Bananas
 Citrus fruit
 Other fruit
 Vegetable oil and oilseeds (in vegetable oil equivalent)²
 Cocoa bean
 Coffee
 Tea
 Tobacco
 Cotton lint
 Jute and hard fibres
 Rubber

Livestock

Beef, veal and buffalo meat
 Mutton, lamb and goat meat
 Pig meat
 Poultry meat
 Milk and dairy products (in whole milk equivalent)
 Eggs

¹ Sugar production in the developing countries was analysed separately for sugar cane and sugar beet.

² Vegetable oil production in the developing countries was analysed separately for soybean, groundnut, sesame seed, coconut, sunflower seed, palm oil/palm-kernel oil, rapeseed and all other oilseeds.

Note

All commodity data and projections in this report are expressed in terms of primary product equivalent unless stated otherwise. Historical commodity balances (Supply Utilization Accounts - SUAs) are available for about 160 primary and 170 processed crop and livestock commodities. To reduce this amount of information to manageable proportions, all the SUA data were converted to the commodity specification given above in the list of commodities, applying appropriate conversion factors (and ignoring joint products to avoid double counting: e.g. wheat flour is converted back into wheat while wheat bran is ignored). In this way, one SUA in homogeneous units is derived for each of the commodities of the study.

Meat production refers to indigenous meat production, i.e. production from slaughtered animals plus the meat equivalent of live animal exports minus the meat equivalent of all live animal imports. Cereals demand and trade data include the grain equivalent of beer consumption and trade.

The commodities for which SUAs were constructed are the 26 crops and 6 livestock products given in the list above. The production analysis for the developing countries was, however, carried out for 34 crops because sugar and vegetable oils were analysed separately (for production analysis only) for the 10 crops shown in the footnote to the list.



Annex 2

Table A1 Population and GDP, data and projections

	Total population									
	Millions					Annual increments (millions)				
	1979-81	1997-99	2015	2030	2050	1995 to 2000	2010 to 2015	2025 to 2030	2045 to 2050	
World (UN) ¹	4 430	5 900	7 207	8 270	9 322	79	76	67	43	
World (FBS)	4 416	5 878	7 176	8 229	9 270	78	76	66	43	
Developing countries	3 245	4 573	5 827	6 869	7 935	74	74	66	45	
Sub-Saharan Africa	345	574	883	1 229	1 704	15	20	24	23	
Near East and North Africa	238	377	520	651	809	8	9	9	7	
Latin America and Car.	357	498	624	717	799	8	7	6	3	
South Asia	885	1 283	1 672	1 969	2 258	23	22	19	12	
East Asia	1 420	1 840	2 128	2 303	2 365	20	16	9	-1	
Industrial countries	789	892	951	979	986	5	2	1	0	
Transition countries	382	413	398	381	349	0	-1	-1	-2	
	Growth rates (% per year)									
	Population					Total GDP		Per capita GDP		
	1969 to 1999	1979 to 1999	1989 to 1999	1997-99 to 2015	2015 to 2030	1997-99 to 2015	2015 to 2030	1997-99 to 2015	2015 to 2030	
World (FBS)	1.7	1.6	1.5	1.2	0.9	3.5	3.8	2.3	2.9	
Developing countries	2.0	1.9	1.7	1.4	1.1	5.1	5.5	3.7	4.4	
Sub-Saharan Africa	2.9	2.9	2.7	2.6	2.2	4.4	4.5	1.8	2.3	
Near East and North Africa	2.7	2.6	2.4	1.9	1.5	3.7	3.9	1.8	2.4	
Latin America and Car.	2.1	1.9	1.7	1.3	0.9	4.1	4.4	2.8	3.5	
South Asia	2.2	2.1	1.9	1.6	1.1	5.5	5.4	3.9	4.3	
East Asia	1.6	1.5	1.2	0.9	0.5	6.1	6.3	5.3	5.8	
Industrial countries	0.7	0.7	0.7	0.4	0.2	3.0	3.0	2.6	2.8	
Transition countries	0.6	0.5	0.1	-0.2	-0.3	3.7	4.0	4.0	4.3	

¹ World (UN) covers all countries; World (FBS) covers all countries for which FAO Food Balance Sheet data are available.

Sources: Population: UN (2001)
GDP to 2015: World Bank (2001b)



Table A2 Growth rates of aggregate demand and production (percent per annum)

	1969 to 1999	1979 to 1999	1989 to 1999	1997-99 to 2015	2015 to 2030	1997-99 to 2030
Demand						
World	2.2	2.1	2.0	1.6	1.4	1.5
Developing countries	3.7	3.7	4.0	2.2	1.7	2.0
Idem, excl. China	3.2	3.0	3.0	2.4	2.0	2.2
Sub-Saharan Africa	2.8	3.1	3.2	2.9	2.8	2.9
Idem, excl. Nigeria	2.5	2.4	2.5	3.1	2.9	3.0
Near East and North Africa	3.8	3.0	2.7	2.4	2.0	2.2
Latin America and Caribbean	2.9	2.7	3.0	2.1	1.7	1.9
Idem, excl. Brazil	2.4	2.1	2.8	2.2	1.8	2.0
South Asia	3.2	3.3	3.0	2.6	2.0	2.3
East Asia	4.5	4.7	5.2	1.8	1.3	1.6
Idem, excl. China	3.5	3.2	2.8	2.0	1.7	1.9
Industrial countries	1.1	1.0	1.0	0.7	0.6	0.7
Transition countries	-0.2	-1.7	-4.4	0.5	0.4	0.5
Production						
World	2.2	2.1	2.0	1.6	1.3	1.5
Developing countries	3.5	3.7	3.9	2.0	1.7	1.9
Idem, excl. China	3.0	3.0	2.9	2.3	2.0	2.1
Sub-Saharan Africa	2.3	3.0	3.0	2.8	2.7	2.7
Idem, excl. Nigeria	2.0	2.2	2.4	2.9	2.7	2.8
Near East and North Africa	3.1	3.0	2.9	2.1	1.9	2.0
Latin America and Caribbean	2.8	2.6	3.1	2.1	1.7	1.9
Idem, excl. Brazil	2.3	2.1	2.8	2.1	1.8	2.0
South Asia	3.1	3.4	2.9	2.5	1.9	2.2
East Asia	4.4	4.6	5.0	1.7	1.3	1.5
Idem, excl. China	3.3	2.9	2.4	1.9	1.8	1.9
Industrial countries	1.3	1.0	1.4	0.8	0.6	0.7
Transition countries	-0.4	-1.7	-4.7	0.6	0.6	0.6
Population						
World	1.7	1.6	1.5	1.2	0.9	1.1
Developing countries	2.0	1.9	1.7	1.4	1.1	1.3
Idem, excl. China	2.3	2.2	2.0	1.7	1.3	1.5
Sub-Saharan Africa	2.9	2.9	2.7	2.6	2.2	2.4
Idem, excl. Nigeria	2.9	2.9	2.7	2.6	2.3	2.4
Near East and North Africa	2.7	2.6	2.4	1.9	1.5	1.7
Latin America and Caribbean	2.1	1.9	1.7	1.3	0.9	1.1
Idem, excl. Brazil	2.1	1.9	1.8	1.4	1.0	1.2
South Asia	2.2	2.1	1.9	1.6	1.1	1.3
East Asia	1.6	1.5	1.2	0.9	0.5	0.7
Idem, excl. China	2.0	1.8	1.6	1.2	0.9	1.0
Industrial countries	0.7	0.7	0.7	0.4	0.2	0.3
Transition countries	0.6	0.5	0.1	-0.2	-0.3	-0.2



Table A3 Per capita food consumption and undernourishment

Food consumption (kcal/capita/day)

	1964-66	1974-76	1984-86	1997-99	2015	2030
World	2 358	2 435	2 655	2 803	2 940	3 050
Developing countries	2 054	2 152	2 450	2 681	2 850	2 980
Sub-Saharan Africa	2 058	2 079	2 057	2 195	2 360	2 540
Idem, excl. Nigeria	2 037	2 076	2 057	2 052	2 230	2 420
Near East and North Africa	2 290	2 591	2 953	3 006	3 090	3 170
Latin America and Caribbean	2 393	2 546	2 689	2 824	2 980	3 140
South Asia	2 017	1 986	2 205	2 403	2 700	2 900
East Asia	1 957	2 105	2 559	2 921	3 060	3 190
Industrial countries	2 947	3 065	3 206	3 380	3 440	3 500
Transition countries	3 222	3 385	3 379	2 906	3 060	3 180

Incidence of undernourishment, developing countries

	% population				Million people			
	1990-92	1997-99	2015	2030	1990-92	1997-99	2015	2030
Developing countries	20	17	11	6	815	776	610	443
Sub-Saharan Africa	35	34	23	15	168	194	205	183
Idem, excl. Nigeria	40	40	28	18	156	186	197	178
Near East and North Africa	8	9	7	5	25	32	37	34
Latin America and Caribbean	13	11	6	4	59	54	40	25
South Asia	26	24	12	6	289	303	195	119
East Asia	16	11	6	4	275	193	135	82

Population living in countries with given per capita food consumption (million)

kcal/capita/day	Population (million)					
	1964-66	1974-76	1984-86	1997-99	2015	2030
Under 2200	1 893 ¹	2 281 ¹	558	571	462	196
2200-2500	288	307	1 290 ²	1 487 ²	541	837
2500-2700	154	141	1 337 ³	222	351	352
2700-3000	302	256	306	1 134	2 397 ²	2 451 ²
Over 3000	688	1 069	1 318	2 464 ³	3 425 ³	4 392 ³
World total	3 325	4 053	4 810	5 878	7 176	8 229

1 Includes India and China.

2 Includes India.

3 Includes China.

Developing countries with a given percentage of undernourishment⁴

	Population (million)			kcal/capita/day			% of population			Million people		
	1997-99	2015	2030	1997-99	2015	2030	1997-99	2015	2030	1997-99	2015	2030
Under 5%	349	1 158	5 129	3 187	3 130	3 150	2	3	3	8	37	178
5-10%	1 989	2 162	524	2 999	3 066	2 758	8	6	7	167	134	38
10-25%	1 632	1 939	948	2 434	2 644	2 411	21	13	16	349	250	155
Over 25%	586	544	239	1 988	2 085	2 149	43	35	30	251	190	72
Total	4 555	5 804	6 840	2 681	2 850	2 980	17	11	6	776	611	443

4 Different countries form each group in the different years.



Table A4 Changes in commodity composition of food

	Cereals	Roots and tubers	Sugar (raw eq.)	Pulses (dry)	Vegetable oils, oilseeds (oil eq.)	Meat (carcass weight)	Milk and dairy (fresh milk eq.)
	kg/capita/year						
World							
1979-81	160	74	23.5	6.5	8.4	29.5	77
1997-99	171	69	24.0	5.9	11.4	36.4	78
2015	171	71	25.1	5.9	13.7	41.3	83
2030	171	74	26.3	6.1	15.8	45.3	90
Industrial countries							
1979-81	139	67	36.8	2.8	15.7	78.5	202
1997-99	159	66	33.1	3.8	20.2	88.2	212
2015	158	63	32.4	4.0	21.6	95.7	217
2030	159	61	32.0	4.1	22.9	100.1	221
Transition countries							
1979-81	189	119	45.9	3.1	9.2	62.9	181
1997-99	173	104	34.0	1.2	9.3	46.2	159
2015	176	102	35.0	1.2	11.5	53.8	169
2030	173	100	36.0	1.1	14.2	60.7	179
Developing countries							
1979-81	162	70	17.6	7.8	6.5	13.7	34
1997-99	173	67	21.3	6.8	9.9	25.5	45
2015	173	71	23.2	6.6	12.6	31.6	55
2030	172	75	25.0	6.6	14.9	36.7	66
Sub-Saharan Africa							
1979-81	115	172	9.9	9.8	8.5	10.6	34
1997-99	123	194	9.5	8.8	9.2	9.4	29
2015	131	199	11.3	9.8	10.7	10.9	31
2030	141	202	13.0	10.5	12.3	13.4	34
Near East and North Africa							
1979-81	199	26	28.2	6.4	11.1	17.4	85
1997-99	209	34	27.6	6.7	12.8	21.2	72
2015	206	33	28.7	6.9	14.4	28.6	81
2030	201	33	29.9	6.9	15.7	35.0	90
Latin America and Caribbean							
1979-81	130	74	48.5	12.6	10.2	40.6	97
1997-99	132	62	48.9	11.1	12.5	53.8	110
2015	136	61	48.2	10.7	14.5	65.3	125
2030	139	61	47.9	10.6	16.3	76.6	140
South Asia							
1979-81	151	20	20.7	11.2	5.8	4.0	42
1997-99	163	22	26.7	10.9	8.4	5.3	68
2015	177	27	29.5	9.1	11.6	7.6	88
2030	183	30	32.2	7.9	14.0	11.7	107
East Asia							
1979-81	181	83	8.1	4.3	4.7	13.0	5
1997-99	199	66	12.4	2.1	9.7	37.7	10
2015	190	64	14.6	2.0	13.1	50.0	14
2030	183	61	16.6	2.1	16.3	58.5	18



Table A5 Cereal balances

	Demand			Production	Net trade	SSR ¹		Growth rates	
	million tonnes							% per year	
	Food	Feed	All uses			%		Demand	Production
World									
1979-81	706	575	1 437	1 442	3	100	1979-99	1.4	1.4
1997-99	1 003	657	1 864	1 889	9	101	1989-99	1.0	1.0
2015	1 227	911	2 379	2 387	8	100	1997-99 to 2015	1.4	1.4
2030	1 406	1 148	2 831	2 839	8	100	2015-2030	1.2	1.2
Industrial countries									
1979-81	110	286	428	551	111	129	1979-99	1.0	0.8
1997-99	142	331	525	652	111	124	1989-99	1.7	1.4
2015	150	387	599	785	187	131	1997-99 to 2015	0.8	1.1
2030	155	425	652	899	247	138	2015-2030	0.6	0.9
Transition countries									
1979-81	72	176	297	242	-41	81	1979-99	-1.9	-1.1
1997-99	72	105	211	210	1	100	1989-99	-4.9	-4.2
2015	70	127	237	247	10	104	1997-99 to 2015	0.7	1.0
2030	66	149	261	287	25	110	2015-2030	0.7	1.0
Developing countries									
1979-81	524	113	712	649	-66	91	1979-99	2.6	2.5
1997-99	790	222	1 129	1 026	-103	91	1989-99	2.2	2.1
2015	1 007	397	1 544	1 354	-190	88	1997-99 to 2015	1.9	1.6
2030	1 185	573	1 917	1 652	-265	86	2015-2030	1.5	1.3
Sub-Saharan Africa									
1979-81	40	2	48	41	-8	85	1979-99	3.4	3.4
1997-99	71	4	86	71	-14	82	1989-99	3.1	2.7
2015	116	8	139	114	-25	82	1997-99 to 2015	2.9	2.8
2030	173	15	208	168	-40	81	2015-2030	2.7	2.6
Near East and North Africa									
1979-81	47	19	80	58	-24	72	1979-99	2.7	2.4
1997-99	79	34	133	83	-49	63	1989-99	2.2	1.3
2015	107	62	192	107	-85	56	1997-99 to 2015	2.2	1.5
2030	131	93	249	133	-116	54	2015-2030	1.8	1.5
Latin America and Caribbean									
1979-81	46	37	94	87	-8	93	1979-99	2.3	1.8
1997-99	66	60	142	125	-14	88	1989-99	2.8	3.1
2015	85	98	204	188	-16	92	1997-99 to 2015	2.1	2.4
2030	99	135	257	244	-13	95	2015-2030	1.6	1.8
South Asia									
1979-81	134	2	151	147	-2	98	1979-99	2.6	2.7
1997-99	208	3	234	239	-3	102	1989-99	1.8	2.0
2015	295	11	335	323	-12	97	1997-99 to 2015	2.1	1.8
2030	360	22	416	393	-22	95	2015-2030	1.5	1.3
East Asia									
1979-81	257	53	339	316	-24	93	1979-99	2.5	2.5
1997-99	366	120	534	507	-23	95	1989-99	2.1	2.1
2015	404	218	675	622	-53	92	1997-99 to 2015	1.4	1.2
2030	422	309	787	714	-73	91	2015-2030	1.0	0.9

¹ SSR = Self-sufficiency ratio = Production / total demand.



Table A6 Balances for selected commodities (million tonnes)

	Developing countries				Industrial countries				Transition countries				
	Demand		Production	Net trade	Demand		Production	Net trade	Demand		Production	Net trade	
	Food ¹	Feed	All uses		Food ¹	Feed	All uses		Food ¹	Feed	All uses		
Wheat													
1979-81	171.8	7.5	205.1	156.8	-48.7	62.6	22.7	95.8	168.1	65.7	138.0	112.5	-15.7
1997-99	289.6	12.9	338.4	280.2	-61.8	75.3	52.1	142.3	215.9	66.0	101.8	100.8	-0.3
2015	392.3	27.7	461.8	358.1	-103.7	76.1	66.1	158.6	262.5	103.9	109.9	113.5	3.6
2030	478.1	41.2	566.0	424.9	-141.2	76.5	70.8	165.2	298.5	133.3	120.0	131.5	11.6
Rice (paddy)													
1979-81	333.1	5.8	370.8	368.7	-2.6	18.0	0.2	19.6	22.7	4.2	4.0	2.6	-1.7
1997-99	491.2	17.4	552.6	561.9	3.7	20.8	0.4	23.3	24.3	2.1	2.6	1.2	-1.4
2015	598.4	32.2	679.8	685.0	5.2	21.5	0.4	23.7	24.1	0.4	3.4	1.5	-1.9
2030	665.9	51.5	771.1	778.0	6.9	22.0	0.5	24.3	23.5	-0.8	3.8	2.0	-1.8
Coarse grains													
1979-81	130.4	102.1	259.5	246.5	-16.0	35.0	263.3	319.1	367.4	42.3	156.6	127.8	-24.5
1997-99	172.3	197.1	421.8	371.0	-43.2	52.8	278.1	367.1	420.3	43.4	107.2	108.6	2.1
2015	215.6	348.3	628.8	539.4	-89.4	59.9	320.8	423.9	506.7	82.8	131.0	133.0	8.1
2030	262.3	497.8	836.9	708.6	-128.2	64.0	353.7	470.7	585.3	114.6	121.0	153.9	14.9
Roots and tubers													
1979-81	227.1	62.5	339.9	356.4	16.4	52.4	30.6	99.6	83.3	-16.3	130.2	128.6	-0.3
1997-99	304.4	97.3	492.4	501.9	8.7	58.8	15.0	94.9	83.2	-11.5	98.0	94.9	-0.5
2015	412.4	142.6	653.2	662.9	9.6	59.6	15.6	98.1	86.6	-11.5	96.7	97.0	0.4
2030	513.8	182.2	808.2	817.6	9.4	59.6	15.7	99.9	88.3	-11.6	94.8	95.4	0.7
Sugar (raw eq.)													
1979-81	57.2	2.3	67.8	74.0	7.3	29.1	0.2	30.5	28.9	-2.0	17.5	12.8	-4.8
1997-99	97.2	3.9	121.9	128.8	5.8	29.5	0.1	31.6	36.0	3.8	14.1	8.6	-5.9
2015	135.4	6.0	167.3	173.0	5.7	31.5	0.1	33.8	36.9	3.1	13.9	9.9	-5.3
2030	171.4	8.2	208.5	212.0	3.5	32.3	0.1	34.6	38.7	4.1	13.7	10.9	-4.3
Pulses													
1979-81	25.3	2.6	31.8	31.5	-0.2	2.2	1.1	3.7	3.8	0.1	1.2	5.5	0.1
1997-99	31.0	4.7	40.5	39.3	-1.0	3.4	6.8	11.1	13.2	1.7	3.4	3.5	0.2
2015	38.3	7.4	51.9	51.0	-0.9	3.8	7.3	12.0	12.8	0.8	3.5	3.9	0.4
2030	45.4	10.5	63.5	62.4	-1.1	4.0	7.7	12.6	13.4	0.8	4.2	4.2	0.5
Vegetable oils, oilseeds (oil eq.)													
1979-81	21.0	0.5	26.4	28.6	1.5	12.3	0.5	17.0	17.2	-0.4	3.5	4.7	-0.9
1997-99	45.1	1.5	61.8	67.7	4.0	18.0	2.1	30.6	30.2	-0.9	3.8	5.8	-0.2
2015	73.2	2.4	105.7	109.1	3.4	20.6	2.4	40.9	40.4	-0.5	4.6	7.2	-0.2
2030	102.3	3.3	152.2	155.6	3.5	22.4	2.5	53.2	52.0	-1.3	5.4	9.2	0.0
Cocoa													
1979-81	0.2	0.0	0.3	1.7	1.3	1.1	0.0	1.1	0.0	-1.1	0.2	0.0	-0.2
1997-99	0.6	0.0	1.0	3.0	2.1	1.9	0.0	1.9	0.0	-1.8	0.4	0.0	-0.4
2015	1.0	0.0	1.4	4.1	2.7	2.2	0.0	2.3	0.0	-2.3	0.5	0.0	-0.5
2030	1.4	0.0	1.9	5.0	3.2	2.5	0.0	2.6	0.0	-2.6	0.6	0.0	-0.6
Coffee													
1979-81	1.5	0.0	1.6	5.3	3.5	3.3	0.0	3.3	0.0	-3.3	0.2	0.0	-0.2
1997-99	1.6	0.0	1.8	6.5	4.6	3.9	0.0	4.0	0.0	-4.0	0.5	0.0	-0.5
2015	2.5	0.0	2.7	7.8	5.2	4.5	0.0	4.5	0.0	-4.6	0.6	0.0	-0.6
2030	3.4	0.0	3.6	9.4	5.8	4.9	0.0	4.9	0.0	-5.2	0.8	0.0	-0.8

Table A6 Balances for selected commodities (million tonnes)(continued)

	Developing countries						Industrial countries						Transition countries					
	Demand		Production	Net trade		Food ¹	Demand		Production	Net trade		Food ¹	Demand		Production	Net trade		
	Food ¹	All uses		Food ¹	Feed		All uses	Food ¹	Feed	All uses	Food ¹		Feed	All uses	Food ¹	Feed	All uses	
Tea																		
1979-81	1.4	0.0	1.4	1.9	0.5	0.5	0.0	0.0	0.5	0.1	-0.4	0.2	0.0	0.2	0.1	-0.1	-0.1	
1997-99	2.8	0.0	2.9	3.7	0.8	0.5	0.0	0.5	0.5	0.1	-0.4	0.3	0.0	0.3	0.1	-0.2	-0.2	
2015	4.1	0.0	4.2	5.1	0.9	0.6	0.0	0.6	0.6	0.1	-0.5	0.4	0.0	0.3	0.1	-0.3	-0.3	
2030	5.4	0.0	5.5	6.5	1.9	0.6	0.0	0.6	0.6	0.1	-0.5	0.4	0.0	0.3	0.1	-0.5	-0.5	
Beef and veal																		
1979-81	15.1	0.0	15.2	15.7	0.5	22.7	0.0	22.8	22.8	22.8	0.1	8.8	0.0	8.9	8.7	-0.2	-0.2	
1997-99	27.8	0.0	28.1	28.0	-0.1	23.3	0.0	23.4	25.0	25.0	1.5	6.3	0.0	6.4	5.7	-0.6	-0.6	
2015	41.2	0.0	41.5	41.2	-0.3	24.6	0.0	24.7	26.6	26.6	1.9	7.0	0.0	7.1	6.3	-0.8	-0.8	
2030	55.3	0.0	55.7	55.0	-0.7	24.7	0.0	24.7	26.5	26.5	1.8	7.4	0.0	7.5	6.9	-0.6	-0.6	
Mutton and lamb																		
1979-81	3.9	0.0	4.0	3.8	-0.2	2.0	0.0	2.1	2.5	2.5	0.4	1.2	0.0	1.2	1.2	0.0	0.0	
1997-99	7.6	0.0	7.6	7.4	-0.3	2.2	0.0	2.3	2.7	2.7	0.4	0.7	0.0	0.8	0.8	0.0	0.0	
2015	11.9	0.0	12.0	11.2	-0.7	2.2	0.0	2.3	3.1	3.1	0.8	0.9	0.0	1.0	0.9	0.0	0.0	
2030	16.6	0.0	16.6	15.4	-1.2	2.2	0.0	2.3	3.5	3.5	1.3	1.1	0.0	1.1	1.1	0.0	0.0	
Pig meat																		
1979-81	17.1	0.0	17.4	17.5	0.1	23.7	0.0	23.8	23.7	23.7	-0.1	10.3	0.0	10.5	10.6	0.1	0.1	
1997-99	49.4	0.0	49.5	49.3	-0.2	28.3	0.0	28.5	29.3	29.3	0.9	8.3	0.0	8.4	7.9	-0.5	-0.5	
2015	70.0	0.0	70.1	69.5	-0.6	31.2	0.0	31.3	32.3	32.3	0.9	8.5	0.0	8.5	8.4	-0.1	-0.1	
2030	83.5	0.0	83.6	82.8	-0.8	31.9	0.0	32.1	33.1	33.1	1.0	8.4	0.0	8.5	8.6	0.1	0.1	
Poultry meat																		
1979-81	8.2	0.0	8.3	7.7	-0.6	13.6	0.0	13.7	14.3	14.3	0.6	3.8	0.0	3.8	3.9	0.0	0.0	
1997-99	31.5	0.0	31.9	31.3	-0.7	24.9	0.0	25.1	27.7	27.7	2.6	3.7	0.0	3.8	2.9	-0.9	-0.9	
2015	61.2	0.0	61.4	59.1	-2.3	33.0	0.0	33.1	37.5	37.5	4.3	5.0	0.0	5.1	4.1	-1.0	-1.0	
2030	96.5	0.0	96.7	93.5	-3.2	39.1	0.0	39.3	44.1	44.1	4.8	6.3	0.0	6.4	5.7	-0.6	-0.6	
Milk and dairy (fresh milk eq.)																		
1979-81	110.2	12.7	129.5	112.3	-17.6	158.9	40.1	207.5	224.9	224.9	18.5	69.2	50.5	126.5	127.3	0.8	0.8	
1997-99	203.7	23.2	239.1	219.3	-19.8	189.4	23.9	225.8	245.8	245.8	19.7	65.7	26.6	94.5	96.6	2.2	2.2	
2015	322.8	36.4	375.8	346.2	-29.6	206.1	24.8	240.4	268.5	268.5	28.1	67.0	27.2	96.9	100.4	3.5	3.5	
2030	451.8	50.8	523.1	484.0	-39.1	216.2	25.4	250.5	286.3	286.3	35.8	68.1	27.7	98.6	103.8	5.2	5.2	
Cotton lint																		
1979-81	8.3	0.0	8.3	8.2	-0.1	3.6	0.0	3.6	3.4	3.4	-0.2	2.6	0.0	2.6	2.7	0.1	0.1	
1997-99	14.0	0.0	14.0	12.1	-1.7	3.9	0.0	3.9	4.8	4.8	0.9	0.8	0.0	0.8	1.5	0.7	0.7	
2015	20.1	0.0	20.1	18.0	-2.1	4.5	0.0	4.5	6.0	6.0	1.5	1.0	0.0	1.0	1.7	0.7	0.7	
2030	25.3	0.0	25.3	22.7	-2.5	4.8	0.0	4.8	6.9	6.9	2.0	1.2	0.0	1.2	1.8	0.6	0.6	
Rubber																		
1979-81	1.2	0.0	1.2	3.8	2.5	2.1	0.0	2.1	0.0	0.0	-2.1	0.4	0.0	0.4	0.0	-0.4	-0.4	
1997-99	3.3	0.0	3.2	6.6	3.4	3.1	0.0	3.1	0.0	0.0	-3.1	0.2	0.0	0.2	0.0	-0.2	-0.2	
2015	4.4	0.0	4.4	7.8	3.4	3.2	0.0	3.2	0.0	0.0	-3.2	0.3	0.0	0.3	0.0	-0.3	-0.3	
2030	5.4	0.0	5.4	8.9	3.5	3.2	0.0	3.2	0.0	0.0	-3.2	0.4	0.0	0.4	0.0	-0.4	-0.4	

1 Industrial use for cotton and rubber





Table A7 Land use

	Arable land million ha			Harvested land million ha			Cropping intensity %		
	Total	Rainfed	Irrigated	Total	Rainfed	Irrigated	Total	Rainfed	Irrigated
Developing countries									
1997-99	956	754	202	885	628	257	93	83	127
2015	1 017	796	221	977	671	306	96	84	138
2030	1 076	834	242	1 063	722	341	99	87	141
Sub-Saharan Africa									
1997-99	228	223	5.3	154	150	4.5	68	67	86
2015	262	256	6.0	185	179	5.7	71	70	95
2030	288	281	6.8	217	210	7.0	76	75	102
Near East and North Africa									
1997-99	86	60	26	70	43	27	81	72	102
2015	89	60	29	77	45	32	86	75	110
2030	93	60	33	84	46	37	90	78	112
Latin America and Caribbean									
1997-99	203	185	18	127	112	16	63	60	86
2015	223	203	20	150	131	19	67	64	95
2030	244	222	22	172	150	22	71	68	100
South Asia									
1997-99	207	126	81	230	131	100	111	103	124
2015	210	123	87	248	131	117	118	106	134
2030	216	121	95	262	131	131	121	109	137
East Asia									
1997-99	232	161	71	303	193	110	130	120	154
2015	233	155	78	317	186	131	136	120	168
2030	237	151	85	328	184	144	139	122	169



Table A8 Yield and harvested land for selected crops

	Yield (tonnes/ha)				Harvested land (million ha)			
	1979-81	1997-99	2015	2030	1979-81	1997-99	2015	2030
Wheat								
Developing countries	1.64	2.53	3.11	3.53	95.6	110.7	113.3	118.4
Sub-Saharan Africa	1.30	1.62	2.03	2.44	1.0	1.6	2.2	2.8
Near East and North Africa	1.35	1.83	2.21	2.56	25.3	27.2	27.9	29.0
Latin America and Caribbean	1.50	2.53	2.84	3.17	10.1	8.9	9.5	10.5
South Asia	1.55	2.46	3.12	3.77	30.0	36.3	40.2	43.8
East Asia	2.04	3.15	3.99	4.30	29.1	36.7	33.5	32.2
Rice (paddy)								
Developing countries	2.65	3.57	4.21	4.73	138.0	156.7	162.1	163.9
Sub-Saharan Africa	1.36	1.63	2.19	2.79	4.5	7.1	8.6	10.1
Near East and North Africa	4.01	5.63	6.17	6.72	1.2	1.6	1.9	2.2
Latin America and Caribbean	1.94	3.47	4.35	4.91	8.0	5.9	6.4	6.9
South Asia	1.91	2.92	3.80	4.32	54.5	59.3	62.2	63.9
East Asia	3.36	4.17	4.67	5.23	70.0	82.8	83.0	80.8
Maize								
Developing countries	1.96	2.78	3.44	3.96	75.5	96.5	117.8	136.2
Sub-Saharan Africa	1.14	1.25	1.61	1.97	12.1	20.7	27.2	33.9
Near East and North Africa	2.39	4.66	5.29	6.39	2.3	2.2	2.6	3.2
Latin America and Caribbean	1.84	2.79	3.59	4.18	25.2	26.8	32.3	36.6
South Asia	1.14	1.68	2.25	2.72	7.1	8.0	8.5	8.8
East Asia	2.59	3.70	4.50	5.12	28.7	38.8	47.1	53.6
Barley								
Developing countries	1.29	1.42	1.74	2.05	16.6	16.9	18.2	19.6
Sub-Saharan Africa	1.21	1.06	1.34	1.65	0.9	1.0	1.2	1.4
Near East and North Africa	1.11	1.31	1.61	1.86	10.9	11.6	12.6	13.4
Latin America and Caribbean	1.36	1.87	2.51	3.04	0.9	1.0	1.3	1.8
South Asia	1.07	1.75	1.95	2.08	2.0	1.0	0.9	0.9
East Asia	2.70	1.79	2.18	2.64	1.8	2.3	2.2	2.2
Sugar cane								
Developing countries	54.9	61.8	77.4	88.1	12.4	18.7	20.5	22.0
Sub-Saharan Africa	56.8	49.5	62.8	75.0	0.6	0.9	1.2	1.5
Near East and North Africa	79.1	103.9	105.1	108.4	0.1	0.2	0.2	0.3
Latin America and Caribbean	57.3	64.7	76.0	82.8	6.2	8.5	8.9	9.3
South Asia	48.6	63.0	84.8	100.2	3.7	5.4	6.1	6.7
East Asia	56.9	54.7	71.5	83.6	1.8	3.8	4.0	4.2
Pulses								
Developing countries	0.61	0.67	0.85	1.09	51.8	60.0	59.7	57.1
Sub-Saharan Africa	0.55	0.44	0.66	0.93	7.8	15.8	17.4	18.4
Near East and North Africa	0.92	0.89	1.12	1.26	2.3	3.8	4.5	5.0
Latin America and Caribbean	0.58	0.84	0.98	1.06	8.3	7.3	7.3	7.8
South Asia	0.47	0.62	0.81	1.05	25.9	25.7	23.0	19.4
East Asia	1.07	1.04	1.15	1.54	7.6	7.4	7.5	6.6



Table A8 Yield and harvested land for selected crops (continued)

	Yield (tonnes/ha)				Harvested land (million ha)			
	1979-81	1997-99	2015	2030	1979-81	1997-99	2015	2030
Soybean								
Developing countries	1.37	1.84	2.24	2.63	21.2	40.8	56.5	71.5
Sub-Saharan Africa	0.56	0.85	1.11	1.40	0.4	0.8	1.2	1.7
Near East and North Africa	1.94	1.84	2.66	3.19	0.1	0.1	0.2	0.3
Latin America and Caribbean	1.66	2.33	2.74	3.15	11.2	21.6	30.7	39.7
South Asia	0.68	1.09	1.40	1.70	0.5	6.1	9.1	11.8
East Asia	1.08	1.41	1.83	2.21	9.0	12.1	15.2	18.0
Groundnut								
Developing countries	0.93	1.28	1.51	1.69	17.6	23.3	31.1	38.5
Sub-Saharan Africa	0.70	0.83	1.06	1.29	5.9	8.7	12.2	16.2
Near East and North Africa	1.76	2.42	2.85	3.23	0.1	0.1	0.2	0.2
Latin America and Caribbean	1.35	1.60	1.72	1.85	0.8	0.7	0.8	1.0
South Asia	0.84	1.03	1.27	1.43	7.2	7.4	8.7	9.5
East Asia	1.38	2.12	2.28	2.43	3.6	6.5	9.2	11.6
Seedcotton								
Developing countries	0.96	1.35	1.84	2.17	25.4	26.2	28.6	30.5
Sub-Saharan Africa	0.57	0.85	1.06	1.25	2.9	4.2	5.3	6.2
Near East and North Africa	2.12	2.70	2.93	3.10	1.6	1.6	2.2	2.6
Latin America and Caribbean	0.90	1.49	1.70	1.85	5.5	2.1	2.6	3.1
South Asia	0.61	0.91	1.54	2.08	10.1	12.1	12.8	13.1
East Asia	1.56	2.16	2.88	3.14	5.2	6.1	5.7	5.6
Rubber								
Developing countries	0.69	0.91	1.07	1.18	5.5	7.2	7.3	7.5
Sub-Saharan Africa	0.69	0.71	0.95	1.19	0.3	0.5	0.6	0.6
Near East and North Africa	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0
Latin America and Caribbean	3.81	1.05	1.18	1.31	0.0	0.1	0.2	0.2
South Asia	0.67	1.20	1.34	1.50	0.4	0.6	0.6	0.6
East Asia	0.68	0.90	1.05	1.15	4.7	6.0	6.0	6.1



Sources

Given below is a list of sources for tables and figures only. A complete list of sources may be found in the main report.

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Acronyms

AIDS	acquired immunodeficiency syndrome
AoA	Agreement on Agriculture
BMI	body mass index
BSE	bovine spongiform encephalopathy
Bt	<i>Bacillus thuringensis</i>
EU	European Union
GDP	gross domestic product
GLASOD	Global Assessment of Land Degradation
GM	genetically modified
ha	hectare
HIV	human immunodeficiency virus
IPCC	Intergovernmental Panel on Climate Change
IPM	integrated pest management
IUCN	World Conservation Union
LDC	least developed country
MNE	multinational enterprise
NPK	nitrogen, phosphorus and potassium
NT/CA	no-till/conservation agriculture
NWFP	non-wood forest product
OECD	Organisation for Economic Co-operation and Development
ppm	parts per million
SFM	sustainable forest management
UN	United Nations
vCJD	variant Creutzfeldt-Jakob disease