

Chapter 10

Food and Agriculture

	Index of Agricultural Production (1989-91 = 100)				Index of Food Production (1989-91 = 100)				Average Production of Cereals		Average Production of Roots and Tubers		Average Production of Pulses	
	Total		Per Capita		Total		Per Capita		(000 metric tons)	% Change Since 1984-86	(000 metric tons)	% Change Since 1984-86	(000 metric tons)	% Change Since 1984-86
	1984-86	1994-96	1984-86	1994-96	1984-86	1994-96	1984-86	1994-96	1994-96	1984-86	1994-96	1984-86	1994-96	1984-86
NORTH AMERICA	94	91	100	88	94	91	100	88	375,707	0	25,643	20	3,584	57
Canada	93	111	100	105	93	110	99	104	51,760	5	3,751	24	2,006	83
United States	98	114	103	108	99	113	104	108	323,947	(1)	21,892	19	1,578	22
CENTRAL AMERICA	X	X	X	X	X	X	X	X	31,357	3	4,154	8	2,086	18
Belize	78	134	88	117	78	134	88	117	35	34	4	14	3	56
Costa Rica	81	119	93	106	80	123	92	109	208	(74)	209	69	29	18
Cuba	99	62	104	60	99	61	104	59	312	(107)	758	(22)	18	0
Dominican Rep	95	103	106	94	93	105	103	96	555	(8)	258	13	84	(1)
El Salvador	99	104	107	93	92	107	99	95	834	18	110	72	54	18
Guatemala	85	106	98	92	79	110	91	95	1,232	(4)	72	3	0	(9)
Haiti	110	91	121	83	110	92	122	84	391	(15)	771	(0)	78	(18)
Honduras	82	107	96	92	83	105	97	90	693	20	31	31	55	33
Jamaica	92	115	94	110	92	115	94	110	4	(101)	341	27	8	5
Mexico	96	118	106	108	96	119	106	108	26,125	5	1,330	18	1,532	21
Nicaragua	112	113	125	98	99	120	110	104	601	20	81	0	88	38
Panama	94	103	104	94	95	103	105	94	346	17	67	(26)	12	42
Trinidad and Tobago	93	105	98	101	93	106	98	102	18	59	12	22	2	(14)
SOUTH AMERICA	88	115	97	106	88	118	96	108	91,056	15	45,148	8	3,964	17
Argentina	101	115	109	108	102	117	110	109	26,258	(9)	2,599	(2)	286	18
Bolivia	78	119	87	105	77	119	86	105	1,090	18	1,064	(10)	27	0
Brazil	86	115	94	107	84	118	92	109	47,164	25	28,278	7	3,073	18
Chile	77	125	84	115	76	125	83	116	2,654	10	873	(5)	94	(56)
Colombia	81	107	89	97	80	109	88	99	3,523	10	4,801	24	186	21
Ecuador	80	128	90	115	80	130	90	116	2,095	56	575	(8)	59	43
Guyana	124	170	125	163	124	170	124	163	475	41	47	37	1	5
Paraguay	75	104	87	91	74	113	87	99	1,166	58	2,846	(3)	64	19
Peru	91	120	100	109	89	122	99	112	2,378	18	3,118	21	126	11
Suriname	112	93	119	88	112	93	119	88	221	(36)	7	46	0	100
Uruguay	89	115	91	111	89	119	91	115	1,790	44	181	(10)	6	4
Venezuela	88	117	100	104	88	118	100	105	2,217	17	732	13	43	8
ASIA	X	X	X	X	X	X	X	X	948,317	X	260,294	X	27,384	X
Afghanistan, Islamic State	X	X	X	X	X	X	X	X	3,019	(8)	260	4	40	3
Armenia, Rep	X	83	X	81	X	84	X	82	256	X	425	X	4	X
Azerbaijan	X	58	X	55	X	54	X	51	981	X	186	X	X	X
Bangladesh	89	104	98	96	87	104	96	96	27,887	14	1,882	4	531	(1)
Bhutan	101	109	114	101	101	109	114	101	111	(54)	56	15	2	(69)
Cambodia	73	119	85	103	73	118	85	102	3,024	42	133	52	19	6
China	82	140	88	132	81	144	88	136	416,954	15	163,572	15	4,777	(21)
Georgia	X	62	X	62	0	67	X	67	543	X	337	X	X	X
India	83	114	92	105	83	114	92	104	213,326	23	24,846	25	15,143	16
Indonesia	84	115	91	107	83	115	91	107	57,197	23	18,792	14	826	27
Iran, Islamic Rep	85	135	102	117	84	135	102	117	16,944	36	3,120	37	648	47
Iraq	101	97	119	87	101	97	119	87	2,312	9	406	68	37	21
Israel	101	107	112	90	96	107	106	91	153	(17)	284	27	8	7
Japan	102	98	105	97	101	98	104	97	14,566	(9)	5,081	(17)	128	(17)
Jordan	85	147	107	116	86	148	108	117	93	34	98	78	4	(33)
Kazakhstan, Rep	X	62	X	61	X	62	X	61	12,340	X	1,805	X	43	X
Korea, Dem People's Rep	X	X	X	X	X	X	X	X	5,022	(33)	2,050	(11)	300	3
Korea, Rep	91	113	96	108	90	113	95	108	6,877	(29)	706	(86)	24	(96)
Kuwait	144	125	177	156	142	126	175	157	2	(27)	1	49	X	X
Kyrgyz Rep	X	76	X	75	X	74	X	73	1,132	X	434	X	X	X
Lao People's Dem Rep	91	114	106	98	92	114	107	98	1,485	4	211	10	43	42
Lebanon	69	118	67	101	68	117	66	100	76	53	324	41	39	67
Malaysia	78	115	88	102	70	122	79	109	2,158	19	530	8	X	X
Mongolia	94	78	109	70	94	76	109	68	264	(197)	51	(144)	1	(57)
Myanmar	111	139	123	127	110	139	121	127	20,040	25	261	(14)	1,063	44
Nepal	82	107	93	94	81	107	92	94	5,686	19	984	41	186	26
Oman	92	90	115	72	91	88	114	71	5	59	6	64	X	X
Pakistan	79	119	92	104	80	125	94	109	23,818	21	1,457	45	766	2
Philippines	90	117	100	105	90	119	100	106	15,119	18	2,761	8	39	1
Saudi Arabia	62	98	79	86	61	98	78	86	3,871	48	360	94	7	7
Singapore	147	42	163	38	147	42	163	38	X	X	X	X	X	X
Sri Lanka	105	108	112	103	107	108	113	103	2,313	(13)	436	(79)	39	(17)
Syrian Arab Rep	101	130	120	113	102	132	122	115	5,816	59	443	24	224	37
Tajikistan, Rep	X	59	X	54	X	64	X	58	288	X	121	100	6	X
Thailand	91	110	99	105	92	106	100	101	25,759	5	17,960	(3)	370	(24)
Turkey	89	105	99	97	89	105	100	97	28,179	3	4,684	20	1,778	12
Turkmenistan, Rep	X	89	X	80	X	105	X	95	988	X	25	X	X	X
United Arab Emirates	71	165	88	144	70	166	88	145	7	19	4	(6)	X	X
Uzbekistan, Rep	X	83	X	75	X	87	X	78	2,718	X	499	X	X	X
Vietnam	82	126	92	114	83	125	92	113	26,040	37	4,260	(18)	217	21
Yemen	83	113	98	87	82	112	97	86	759	29	183	(15)	68	37
OCEANIA	97	111	105	104	97	115	105	107	26,928	(0)	3,137	8	2,050	45
Australia	94	110	102	104	95	113	102	107	26,084	1	1,151	14	1,973	47
Fiji	95	107	98	99	95	107	99	99	20	(32)	48	(40)	1	56
New Zealand	104	114	108	108	102	119	106	113	819	(42)	296	3	72	(3)
Papua New Guinea	98	108	109	96	99	107	110	96	3	29	1,267	6	2	22
Solomon Islands	121	106	144	90	121	106	144	90	X	X	111	14	2	2
DEVELOPING	85	122	94	111	85	123	94	113	1,137,967	19	436,491	21	40,442	15
DEVELOPED	98	96	101	94	98	97	101	94	832,364	(7)	185,545	(20)	16,357	4

Notes: a. Data for Belgium and Luxembourg are combined under Belgium.
World and regional totals include some countries not listed here.

Data Table 10.2

Agricultural Land and Inputs, 1982–94

Sources: Food and Agriculture Organization of the United Nations and United Nations Population Division

	Cropland				Irrigated Land		Annual Fertilizer Use		Tractors		Harvesters	
	Total Hectares (000) 1984	Hectares Per Capita 1984	Total Hectares (000) 1994	Hectares Per Capita 1994	as a Percentage of Cropland		kilograms per hectare of cropland		Average Number 1992-94	Percent Change Since 1982-84	Average Number 1992-94	Percent Change Since 1982-84
					1982-84	1992-94	1984	1994				
WORLD	1,208,584	0.25	1,238,812	0.22	17	19	107	113	25,951,850	11	4,134,798	8
AFRICA	179,281	0.34	190,022	0.27	6	6	19	18	539,098	15	40,332	(26)
Algeria	7,510	0.35	8,043	0.29	4	7	27	15	95,562	78	9,786	92
Angola	3,400	0.44	3,500	0.33	2	2	2	3	10,300	0	X	X
Benin	1,818	0.47	1,880	0.36	0	0	4	11	140	25	X	X
Botswana	400	0.38	420	0.30	1	0	3	2	6,000	133	95	16
Burkina Faso	2,985	0.39	3,431	0.34	0	1	4	7	1,380	1,050	X	X
Burundi	1,180	0.26	1,110	0.19	1	1	2	3	170	55	2	100
Cameroon	6,965	0.72	7,040	0.55	0	0	6	4	500	(21)	X	X
Central African Rep	1,982	0.78	2,020	0.63	0	0	1	1	210	24	20	76
Chad	3,150	0.64	3,256	0.53	0	0	2	2	170	6	17	0
Congo, Dem Rep	7,750	0.25	7,900	0.18	0	0	1	1	2,430	14	X	X
Congo, Rep	158	0.08	170	0.07	1	1	18	11	707	4	73	88
Côte d'Ivoire	3,486	0.37	4,190	0.31	2	2	12	16	3,700	16	65	44
Egypt	2,493	0.05	3,265	0.05	100	100	341	264	72,648	61	2,370	11
Equatorial Guinea	230	0.78	230	0.59	0	0	0	0	100	2	X	X
Eritrea	X	X	519	0.17	X	5	X	0	567	X	27	X
Ethiopia	13,930	0.35	11,012	0.20	1	1	2	14	3,283	(16)	113	(24)
Gabon	452	0.58	460	0.44	1	1	6	1	1,500	15	X	X
Gambia, The	169	0.24	172	0.16	1	1	12	5	45	4	5	25
Ghana	3,900	0.31	4,500	0.27	0	0	2	3	4,100	12	540	50
Guinea	715	0.15	820	0.12	13	12	0	1	437	118	X	X
Guinea-Bissau	315	0.37	340	0.32	6	5	0	2	19	12	X	X
Kenya	4,285	0.22	4,520	0.17	1	1	18	31	14,000	73	650	50
Lesotho	297	0.20	320	0.16	1	1	15	19	1,850	22	35	17
Liberia	371	0.18	370	0.17	1	1	3	0	327	6	X	X
Libya	2,115	0.58	2,170	0.42	13	22	48	32	34,000	28	3,410	18
Madagascar	3,020	0.29	3,105	0.22	25	35	2	4	3,200	17	150	15
Malawi	1,445	0.21	1,700	0.18	1	2	31	16	1,420	11	X	X
Mali	2,053	0.27	3,000	0.29	3	3	24	8	2,383	99	50	9
Mauritania	195	0.11	208	0.09	25	24	3	19	333	7	X	X
Mauritius	107	0.11	106	0.10	15	17	253	275	370	10	X	X
Morocco	8,352	0.39	9,291	0.36	15	13	32	32	42,000	34	4,500	13
Mozambique	3,080	0.23	3,180	0.19	3	3	1	2	5,750	0	X	X
Namibia	662	0.58	750	0.50	1	1	0	0	3,150	17	X	X
Niger	3,535	0.55	4,500	0.51	1	2	1	1	180	39	X	X
Nigeria	30,873	0.38	32,700	0.30	1	1	9	9	11,900	25	X	X
Rwanda	1,108	0.19	1,150	0.22	0	0	1	1	90	7	X	X
Senegal	2,350	0.38	2,365	0.29	3	3	8	8	550	20	155	7
Sierra Leone	523	0.15	540	0.13	5	5	2	6	550	34	6	38
Somalia	1,020	0.13	1,020	0.11	16	19	4	0	1,980	7	X	X
South Africa	13,169	0.41	15,500	0.38	9	8	73	49	125,962	(26)	12,562	(64)
Sudan	12,608	0.60	12,975	0.50	15	15	3	4	10,500	6	1,600	70
Swaziland	179	0.28	191	0.23	39	35	47	70	4,060	17	X	X
Tanzania	2,895	0.14	3,675	0.13	4	4	12	10	6,600	(25)	X	X
Togo	2,360	0.80	2,400	0.60	0	0	3	5	370	42	X	X
Tunisia	4,990	0.70	4,813	0.55	6	8	17	18	30,158	15	3,070	19
Uganda	6,500	0.45	6,800	0.36	0	0	0	0	4,700	44	15	36
Zambia	5,158	0.82	5,273	0.67	0	1	11	11	6,000	19	293	8
Zimbabwe	2,808	0.35	2,878	0.26	3	4	52	59	20,833	31	720	11
EUROPE	X	X	316,378	0.43	X	X	X	X	11,505,372	X	1,320,468	X
Albania	713	0.25	702	0.21	55	49	132	21	9,050	(12)	902	(35)
Austria	1,522	0.20	1,513	0.19	0	0	257	168	345,753	6	24,992	(17)
Belarus, Rep	X	X	6,225	0.60	X	2	X	87	124,997	X	35,242	X
Belgium (a)	775	0.08	794	0.08	0	0	538	402	112,047	(4)	9,190	(1)
Bosnia and Herzegovina	X	X	800	0.22	X	0	X	6	24,667	X	1,083	X
Bulgaria	4,135	0.46	4,219	0.49	29	24	227	52	37,145	(36)	6,802	(24)
Croatia, Rep	X	X	1,221	0.27	X	0	X	152	4,173	X	1,025	X
Czech Rep	X	X	3,386	0.33	X	1	X	100	43,151	X	6,823	X
Denmark	2,627	0.51	2,374	0.46	15	18	251	196	152,084	(14)	30,912	(17)
Estonia, Rep	X	X	1,144	0.76	X	0	X	36	47,742	X	2,300	X
Finland	2,439	0.50	2,593	0.51	2	2	208	148	232,000	(0)	38,000	(17)
France	19,145	0.35	19,488	0.34	5	8	302	242	1,366,667	(8)	154,000	4
Germany	12,428	0.16	12,037	0.15	4	4	381	241	1,307,300	(20)	136,927	(23)
Greece	3,952	0.40	3,502	0.34	25	37	167	152	230,409	36	6,173	(4)
Hungary	5,289	0.50	4,974	0.49	4	4	288	63	38,500	(31)	8,367	(32)
Iceland	7	0.03	6	0.02	0	0	3,806	3,433	10,595	(24)	2	(65)
Ireland	1,044	0.30	1,317	0.37	0	0	649	569	167,500	10	5,100	(2)
Italy	12,232	0.22	11,143	0.19	20	23	171	170	1,455,192	24	49,643	27
Latvia, Rep	X	X	1,740	0.68	X	0	X	55	58,200	X	35,233	X
Lithuania, Rep	X	X	3,017	0.81	X	0	X	26	58,853	X	8,000	X
Macedonia, FYR	X	X	661	0.31	X	11	X	88	47,976	X	1,251	X
Moldova, Rep	X	X	2,190	0.49	X	14	X	53	51,911	X	6,400	X
Netherlands	846	0.06	920	0.06	61	61	851	592	182,000	(0)	5,587	(4)
Norway	855	0.21	901	0.21	10	11	295	227	149,033	4	16,000	(8)
Poland, Rep	14,863	0.40	14,652	0.38	1	1	221	98	1,212,810	60	89,156	83
Portugal	3,153	0.32	3,000	0.31	20	21	69	83	142,530	41	4,362	(13)
Romania	10,574	0.47	9,926	0.43	24	31	142	48	155,380	(9)	42,533	(2)
Russian Federation	X	X	132,302	0.89	X	4	X	11	1,227,187	X	344,923	X
Slovak Rep	X	X	1,611	0.30	X	19	X	59	21,220	X	3,919	X
Slovenia, Rep	X	X	286	0.15	X	1	X	286	84,000	X	1,300	X
Spain	20,512	0.54	20,129	0.51	15	18	80	95	777,104	31	48,946	12
Sweden	2,933	0.35	2,780	0.32	3	4	156	116	165,000	(12)	40,000	(17)
Switzerland	412	0.06	434	0.06	6	6	437	336	114,000	10	4,000	(18)
Ukraine	X	X	34,357	0.66	X	8	X	33	445,282	X	99,218	X
United Kingdom	6,990	0.12	5,949	0.10	2	2	371	381	500,000	(5)	47,000	(16)
Yugoslavia, Fed Rep	X	X	4,085	0.40	X	2	X	21	403,916	X	5,157	X

	Cropland				Irrigated Land		Annual Fertilizer Use		Tractors		Harvesters	
	Total Hectares (000)	Hectares Per Capita	Total Hectares (000)	Hectares Per Capita	as a Percentage of Cropland		kilograms per hectare of cropland		Average Number	Percent Change Since	Average Number	Percent Change Since
	1984	1984	1994	1994	1982-84	1992-94	1984	1994	1992-94	1982-84	1992-94	1982-84
NORTH AMERICA	235,854	0.89	233,276	0.79	9	9	94	92	5,540,000	3	817,000	(2)
Canada	46,055	1.80	45,500	1.56	1	2	52	50	740,000	8	155,000	(3)
United States	189,799	0.79	187,776	0.71	11	11	104	103	4,800,000	3	662,000	(1)
CENTRAL AMERICA	38,107	0.39	41,112	0.34	17	20	65	58	293,727	14	32,612	13
Belize	53	0.33	83	0.40	4	4	37	75	1,150	32	45	32
Costa Rica	518	0.20	530	0.16	17	23	186	243	7,000	15	1,190	12
Cuba	3,337	0.33	4,512	0.41	25	24	174	27	78,000	18	7,400	8
Dominican Rep	1,430	0.23	1,820	0.24	13	14	42	51	2,350	6	X	X
El Salvador	725	0.16	755	0.14	15	16	76	101	3,430	2	420	24
Guatemala	1,785	0.23	1,910	0.19	5	7	5	4	4,300	6	3,050	11
Haiti	902	0.16	910	0.13	8	9	4	6	230	21	X	X
Honduras	1,777	0.44	2,030	0.37	4	4	21	28	4,391	33	X	X
Jamaica	220	0.10	219	0.09	15	15	105	119	3,080	5	X	X
Mexico	24,688	0.33	24,730	0.28	20	25	67	62	172,000	14	19,500	18
Nicaragua	1,683	0.54	2,569	0.64	5	4	29	12	2,700	15	X	X
Panama	586	0.28	665	0.26	5	5	48	48	5,000	(6)	1,000	(26)
Trinidad and Tobago	118	0.10	122	0.10	18	18	52	49	2,650	6	X	X
SOUTH AMERICA	104,544	0.40	114,901	0.37	7	8	44	60	1,214,093	21	121,732	16
Argentina	27,200	0.91	27,200	0.79	6	6	5	17	280,000	38	50,000	10
Bolivia	2,217	0.38	2,370	0.33	6	4	2	4	5,350	19	123	1
Brazil	51,680	0.39	60,000	0.38	4	5	65	79	735,000	19	48,000	23
Chile	4,325	0.36	4,154	0.30	29	30	42	95	40,974	19	8,767	5
Colombia	5,264	0.18	6,220	0.18	8	14	69	92	27,000	(16)	2,850	27
Ecuador	2,505	0.28	3,036	0.27	16	9	29	51	8,900	20	780	24
Guyana	495	0.63	496	0.60	26	26	30	30	3,630	3	440	6
Paraguay	1,967	0.56	2,270	0.48	3	3	5	10	16,500	72	X	X
Peru	3,691	0.19	4,140	0.18	33	43	21	41	12,933	8	X	X
Suriname	59	0.16	68	0.16	79	88	196	63	1,330	15	275	25
Uruguay	1,346	0.45	1,304	0.41	7	11	39	77	33,000	(2)	4,687	2
Venezuela	3,790	0.23	3,630	0.17	4	5	71	68	49,000	19	5,800	45
ASIA	X	X	621,590	0.18	X	X	X	X	7,197,097	X	1,856,053	X
Afghanistan, Islamic State	8,054	0.54	8,054	0.44	32	36	9	6	840	6	X	X
Armenia, Rep	X	X	600	0.17	X	49	X	12	15,852	X	2,085	X
Azerbaijan	X	X	2,000	0.27	X	54	X	20	31,000	X	4,233	X
Bangladesh	9,132	0.09	8,700	0.07	20	37	65	120	5,300	13	X	X
Bhutan	127	0.09	140	0.08	24	29	1	1	X	X	X	X
Cambodia	2,110	0.29	3,838	0.39	5	4	1	3	1,190	(3)	20	0
China	98,746	0.09	95,782	0.08	45	52	200	309	740,425	(12)	56,781	61
Georgia	X	X	1,127	0.21	X	44	X	28	20,567	X	1,271	X
India	169,078	0.22	169,700	0.19	24	29	49	80	1,196,268	136	3,167	21
Indonesia	25,934	0.16	30,171	0.16	17	15	72	80	46,976	353	237,148	1,460
Iran, Islamic Rep	15,540	0.33	18,500	0.28	40	39	60	54	229,335	107	5,488	79
Iraq	5,450	0.37	5,750	0.29	32	64	22	65	32,000	(5)	1,900	(24)
Israel	419	0.10	434	0.08	54	44	229	240	25,707	(5)	260	(25)
Japan	4,780	0.04	4,422	0.04	62	62	440	398	2,031,333	28	1,168,667	16
Jordan	351	0.10	405	0.08	12	17	43	35	7,378	55	75	17
Kazakhstan, Rep	X	X	34,978	2.08	X	6	X	3	208,586	X	79,628	X
Korea, Dem People's Rep	1,945	0.10	2,000	0.09	63	73	398	377	75,000	22	X	X
Korea, Rep	2,153	0.05	2,033	0.05	61	65	361	472	76,555	903	66,373	1,030
Kuwait	3	X	5	0.00	57	73	150	200	100	329	X	X
Kyrgyz Rep	X	X	1,420	0.32	X	74	X	20	26,059	X	3,698	X
Lao People's Dem Rep	810	0.23	900	0.19	16	16	0	2	890	24	X	X
Lebanon	298	0.11	306	0.10	29	29	170	114	3,800	27	97	7
Malaysia	5,300	0.35	7,604	0.39	6	5	105	159	34,617	283	X	X
Mongolia	1,336	0.72	1,320	0.55	4	6	13	1	8,107	(24)	2,001	(21)
Myanmar	10,061	0.27	10,076	0.23	10	11	19	12	11,000	22	3,910	56
Nepal	2,329	0.14	2,743	0.13	29	35	18	33	4,600	71	X	X
Oman	47	0.03	63	0.03	92	95	20	159	150	44	45	246
Pakistan	20,330	0.21	21,510	0.16	76	80	62	98	289,433	119	1,633	173
Philippines	8,920	0.17	9,370	0.14	16	17	29	64	11,500	24	700	35
Saudi Arabia	2,423	0.20	3,800	0.21	34	34	108	95	8,633	220	2,233	244
Singapore	6	X	1	0.00	0	0	833	4,800	65	30	X	X
Sri Lanka	1,872	0.12	1,883	0.11	29	29	102	113	31,500	21	6	64
Syrian Arab Rep	5,654	0.56	5,971	0.43	10	17	39	59	73,428	99	4,428	56
Tajikistan, Rep	X	X	860	0.15	X	85	X	81	31,909	X	1,100	X
Thailand	19,331	0.38	20,445	0.35	18	22	23	64	99,549	288	55,462	85
Turkey	27,413	0.56	27,771	0.46	11	15	56	54	745,248	44	11,408	(16)
Turkmenistan, Rep	X	X	1,480	0.37	X	90	X	84	55,015	X	14,672	X
United Arab Emirates	32	0.02	82	0.04	185	89	118	432	175	5	5	67
Uzbekistan, Rep	X	X	4,500	0.20	X	88	X	105	173,333	X	7,333	X
Vietnam	6,590	0.11	6,758	0.09	26	28	57	192	37,209	31	X	X
Yemen	1,465	0.16	1,540	0.11	20	29	13	7	5,943	12	55	22
OCEANIA	51,849	2.15	51,515	1.84	4	5	34	46	401,364	(5)	60,095	(3)
Australia	47,239	3.07	47,205	2.67	4	5	26	35	315,000	(3)	56,500	(2)
Fiji	190	0.28	260	0.34	1	1	83	69	7,017	43	X	X
New Zealand	3,500	1.09	3,071	0.87	7	9	147	212	76,000	(16)	3,100	(19)
Papua New Guinea	376	0.11	440	0.10	0	0	18	30	1,140	(8)	475	14
Solomon Islands	54	0.21	57	0.16	0	0	0	0	X	X	X	X
DEVELOPING	763,202	0.21	799,479	0.18	21	23	63	89	5,730,613	44	636,207	133
DEVELOPED	677,068	0.61	667,273	0.57	9	10	121	78	20,221,237	4	3,498,591	(2)

Notes: a. Data for Belgium and Luxembourg are combined under Belgium.

World and regional totals include some countries not listed here.

Data Table 10.3

Food Security, 1982-97

Sources: Food and Agriculture Organization of the United Nations, United Nations Population Division, and U.S. Department of Agriculture

	Average Annual Net Trade in Cereals		Average Annual Donations or Receipts of Cereals		Grain Consumption as a Percent of Domestic Production		Grains Fed to Livestock as a Percent of Total Grain Consumption		Average Daily Per Capita Calorie Supply		Average Daily Per Capita Protein Supply		Average Yield of Cereals		Average Yield of Roots and Tubers		
	(000 metric tons)		(000 metric tons)						(kilocalories)		(grams)		Per Hectare		Per Hectare		
	1983-85	1993-95	1983-85	1993-95	1983-85	1993-95	1985-87	1995-97	1982-84	1992-94	1982-84	1992-94	1994-96	1984-86	1994-96	1984-86	
WORLD							40	40	2,624	2,709	62	72	2,817	10.1	12,752	2	
AFRICA	27,997	31,242	6,940	3,192	150	133	16	14	X	X	X	X	1,220	9.5	8,161	17	
Algeria	4,332	6,430	4	20	329	524	31	22	2,626	2,959	69	82	953	19.6	12,216	35	
Angola	339	443	89	225	233	321	0	0	1,986	1,756	50	39	405	(6.7)	6,041	38	
Benin	112	132	13	16	128	122	0	0	1,983	2,325	46	56	1,008	17.6	9,275	10	
Botswana	215	172	43	5	1,934	472	0	0	2,215	2,268	70	69	300	43.6	6,000	10	
Burkina Faso	191	147	119	28	125	107	2	3	1,698	2,471	50	72	808	17.6	5,219	(55)	
Burundi	32	70	14	37	120	140	0	0	1,904	1,802	61	57	1,298	10.7	6,471	(7)	
Cameroon	251	336	9	3	133	132	0	0	2,247	2,167	55	51	1,313	8.3	6,076	(0)	
Central African Rep	22	47	16	2	136	148	0	0	2,154	1,959	36	41	790	(28.2)	3,280	(23)	
Chad	79	52	130	14	142	107	0	0	1,441	1,840	41	53	639	14.0	4,163	(17)	
Congo, Dem Rep	378	323	102	51	145	122	4	0	2,080	2,032	34	32	793	(2.5)	8,174	(6)	
Congo, Rep	117	129	1	8	930	605	0	0	2,312	2,188	47	49	936	19.7	6,894	(3)	
Côte d'Ivoire	658	665	0	44	166	143	3	4	2,740	2,358	56	50	1,111	14.9	5,792	(1)	
Egypt	8,208	7,846	1,885	208	218	152	35	31	3,054	3,227	78	87	6,082	25.6	21,484	5	
Equatorial Guinea	X	X	8	3	X	X	X	X	X	X	X	X	X	X	2,632	(19)	
Eritrea	X	127	a	X	154	X	261	X	X	X	1,608	b	X	699	X	2,812	X
Ethiopia	478	426	738	657	125	114	0	0	1,681	1,661	X	X	1,354	24.4	3,679	2	
Gabon	79	98	0	0	689	476	0	0	2,523	2,472	75	73	1,779	10.0	5,449	3	
Gambia, The	70	94	25	6	206	203	0	0	2,226	2,295	49	47	1,106	(19.7)	3,000	0	
Ghana	210	383	101	88	138	128	4	3	1,862	2,360	40	50	1,399	35.3	10,995	50	
Guinea	151	404	58	27	131	156	0	0	2,251	2,346	51	46	1,219	26.1	7,091	4	
Guinea-Bissau	35	74	27	4	141	141	0	0	2,191	2,571	46	50	1,389	15.9	7,038	4	
Kenya	262	270	225	135	120	113	3	1	2,042	1,914	55	50	1,822	11.2	8,031	9	
Lesotho	196	220	59	32	281	253	27	21	2,267	2,164	67	60	1,560	56.2	14,804	(4)	
Liberia	144	153	a	48	155	640	0	0	2,496	1,728	X	X	1,110	(13.3)	7,356	15	
Libya	992	1,987	0	0	421	726	33	30	3,386	3,288	88	74	679	9.3	7,261	8	
Madagascar	239	126	86	25	114	106	0	0	2,419	2,056	57	48	2,010	12.5	6,707	9	
Malawi	(80)	459	5	152	95	136	2	3	2,188	1,911	64	54	1,194	4.4	4,632	5	
Mali	229	72	202	18	133	104	1	1	1,954	2,040	56	56	809	(6.5)	5,007	17	
Mauritania	302	241	176	37	792	238	1	0	2,317	2,578	78	78	750	18.2	2,000	5	
Mauritius	195	250	13	0	6,414	14,073	0	0	2,669	2,942	61	78	4,339	(4.4)	17,489	(35)	
Morocco	2,310	2,962	373	45	164	163	24	21	2,833	3,114	76	84	1,236	6.8	16,203	(1)	
Mozambique	460	537	404	303	227	197	0	0	1,809	1,685	32	31	647	18.3	4,099	0	
Namibia	75	108	0	4	196	233	X	X	2,179	2,174	62	60	264	(43.5)	8,438	(3)	
Niger	184	145	148	32	121	108	0	0	2,139	2,154	61	62	338	(8.4)	7,450	(8)	
Nigeria	1,928	1,345	0	0	118	107	5	2	1,973	2,589	42	54	1,172	(13.5)	10,573	(22)	
Rwanda	64	102	a	32	202	130	281	11	9	2,238	1,861	X	X	1,491	21.0	6,278	(22)
Senegal	660	658	159	22	199	166	0	0	2,368	2,288	68	66	824	11.3	3,394	(28)	
Sierra Leone	88	211	33	35	123	155	0	3	1,974	1,888	42	43	1,192	(19.4)	4,968	19	
Somalia	173	234	a	226	34	187	194	2	4	1,969	1,533	X	X	426	(81.1)	10,000	(7)
South Africa	1,220	195	0	5	115	102	35	36	2,867	2,776	75	72	1,918	23.7	21,062	34	
Sudan	726	368	832	164	160	114	0	0	2,138	2,274	62	70	527	9.4	2,964	(1)	
Swaziland	86	107	4	8	174	233	0	0	2,529	2,653	64	63	1,735	(12.0)	1,930	(29)	
Tanzania	318	219	137	60	114	107	2	3	2,286	2,054	56	49	1,310	3.6	7,713	(15)	
Togo	87	69	14	8	127	115	12	19	2,108	2,052	48	49	762	(10.3)	5,716	(37)	
Tunisia	987	1,686	182	29	185	260	28	26	2,835	3,168	77	84	1,164	31.0	13,544	17	
Uganda	4	(49)	19	49	102	100	0	0	2,246	2,160	50	52	1,552	20.7	5,727	(9)	
Zambia	233	192	98	32	132	118	2	3	2,114	1,954	55	51	1,538	(17.4)	5,370	(2)	
Zimbabwe	(41)	(19)	83	9	102	100	14	9	2,162	1,999	55	49	1,163	(24.6)	4,508	(12)	
EUROPE	X	(20,823)	X	679	X	95	63	59	X	X	X	X	2,884	X	15,134	X	
Albania	59	341	0	94	106	165	0	0	2,781	2,349	82	77	2,537	(16.4)	9,971	34	
Austria	(684)	(364)	(18)	(12)	87	91	73	68	3,365	3,474	96	101	5,384	6.0	25,649	(8)	
Belarus, Rep	X	510	X	62	X	109	76	67	X	3,235	X	101	2,161	X	13,261	X	
Belgium (b)	1,993	2,287	(52)	(38)	187	196	38	44	3,361	3,700	102	106	7,369	17.1	41,038	(5)	
Bosnia and Herzegovina	X	0	X	7	X	101	X	X	X	1,734	X	X	2,957	X	6,400	X	
Bulgaria	167	(304)	0	52	102	96	63	52	3,640	2,915	106	85	2,615	(46.1)	9,906	(15)	
Croatia, Rep	X	(117)	X	12	X	96	X	X	X	2,358	X	60	4,340	X	9,681	X	
Czech Rep	X	(409)	X	0	X	94	X	58	X	3,012	b	92	b	4,167	X	17,817	X
Denmark	(897)	(1,524)	(15)	(43)	88	81	84	81	3,390	3,722	87	102	5,934	12.5	35,352	(3)	
Estonia, Rep	X	96	X	0	X	116	80	63	X	2,447	X	110	1,756	X	14,775	X	
Finland	(458)	(657)	(22)	(11)	87	80	69	63	3,027	3,050	94	94	3,478	14.7	21,329	13	
France	(25,154)	(29,943)	(216)	(190)	52	44	64	67	3,453	3,544	114	115	6,698	15.3	34,527	9	
Germany	5,565	(5,600)	0	0	115	85	X	64	3,367	3,382	98	96	6,049	16.3	33,407	17	
Greece	(924)	(65)	(10)	(12)	81	98	57	49	3,606	3,689	109	113	3,590	5.2	22,025	17	
Hungary	(1,663)	(1,674)	0	0	89	84	73	72	3,480	3,400	98	93	3,910	(32.3)	14,276	(37)	
Iceland	60	70	0	0	X	X	X	X	3,137	3,088	126	121	X	X	10,747	(52)	
Ireland	280	275	(4)	(5)	113	116	73	60	3,598	3,630	110	114	6,687	17.5	29,377	26	
Italy	3,935	2,443	(118)	(116)	120	112	50	51	3,382	3,464	104	108	4,716	18.6	23,411	23	
Latvia, Rep	X	19	X	0	X	102	74	60	X	2,958	X	93	1,854	X	12,564	X	
Lithuania, Rep	X	85	X	26	X	105	81	64	X	2,916	X	96	2,024	X	12,780	X	
Macedonia, FYR	X	114	X	15	X	121	X	0	X	2,392	X	68	2,719	X	10,420	X	
Moldova, Rep	X	157	X	130	X	111	62	53	X	2,892	X	81	2,711	X	6,611	X	
Netherlands	3,519	3,866	(136)	(137)	364	359	48	43	3,046	3,343	94	100	7,752	10.6	42,046	1	
Norway	387	577	(31)	(35)	128	141	67	65	3,155	3,244	99	101	3,807	(0.0)	23,320	(5)	
Poland, Rep	2,552	1,951	38	0	111	108	63										

	Average Annual Net Trade in Cereals		Average Annual Donations or Receipts of Cereals		Grain Consumption as a Percent of Domestic Production		Grains Fed to Livestock as a Percent of Total Grain Consumption		Average Daily Per Capita Calorie Supply (kilocalories)		Average Daily Per Capita Protein Supply (grams)		Average Yield of Cereals		Average Yield of Roots and Tubers		
	(000 metric tons)		(000 metric tons)										Kilograms Per Hectare		Percent Change Since		
	1983-85	1993-95	1983-85	1993-95	1983-85	1993-95	1985-87	1995-97	1982-84	1992-94	1982-84	1992-94	1984-86	1984-86	1994-96	1994-96	1984-86
NORTH AMERICA	(118,959)	(108,419)	(7,614)	(5,723)	62	67	68	65	X	X	X	X	X	X	22,863	38	
Canada	(25,074)	(23,168)	(992)	(594)	44	52	76	78	2,984	3,058	93	96	2,702	15.9	26,706	6	
United States	(93,886)	(85,251)	(6,622)	(5,128)	65	70	71	67	3,279	3,609	99	110	5,136	10.1	36,616	15	
CENTRAL AMERICA	10,631	12,216	976	525	139	141	17	31	X	X	X	X	X	X	X	X	
Belize	9	19	0	0	140	155	0	0	2,585	2,683	67	67	1,888	15.3	21,765	5	
Costa Rica	137	521	107	3	165	354	30	51	2,595	2,776	62	66	3,426	32.9	22,392	61	
Cuba	2,249	1,536	0	6	458	677	0	0	3,133	2,504	74	56	1,877	(42.5)	5,426	(12)	
Dominican Rep	408	995	128	4	188	297	40	63	2,304	2,275	50	51	4,034	11.5	6,845	8	
El Salvador	243	372	248	33	172	148	24	26	2,366	2,483	56	62	1,887	5.0	18,718	25	
Guatemala	64	62	32	109	108	113	23	29	2,553	2,670	83	85	1,915	12.1	5,596	6	
Haiti	82	393	108	104	144	225	3	3	2,026	1,721	X	X	929	(9.2)	3,815	0	
Honduras	100	275	119	88	140	152	23	54	2,133	2,352	51	55	1,436	3.9	8,536	(0)	
Jamaica	421	436	162	86	7,317	13,675	28	39	2,576	2,662	63	67	1,374	(27.6)	15,291	20	
Mexico	6,396	6,948	6	49	126	127	29	44	3,194	3,053	83	83	2,506	4.6	19,888	28	
Nicaragua	163	170	64	44	149	137	0	6	2,395	2,267	61	55	1,687	(2.5)	11,563	(0)	
Panama	113	263	1	2	140	178	29	43	2,395	2,420	61	65	2,078	23.4	5,739	(29)	
Trinidad and Tobago	246	227	0	0	3,765	1,259	36	38	3,056	2,499	81	59	3,649	33.9	10,222	6	
SOUTH AMERICA	(8,899)	4,361	452	539	89	106	49	54	X	X	X	X	2,547	19.9	12,320	7	
Argentina	(20,160)	(12,376)	(42)	(4)	34	50	56	49	3,103	3,076	99	98	2,811	9.9	19,722	14	
Bolivia	353	267	237	149	176	139	40	33	2,058	2,190	53	58	1,561	16.1	5,605	4	
Brazil	4,892	9,129	7	19	115	120	55	64	2,630	2,797	62	69	2,383	27.7	13,020	7	
Chile	928	1,038	14	1	148	139	30	39	2,574	2,735	69	78	4,409	31.9	14,698	5	
Colombia	941	2,222	5	15	129	163	19	32	2,466	2,662	53	62	2,623	1.7	12,778	11	
Ecuador	353	305	14	15	150	116	29	37	2,306	2,378	46	49	2,066	16.8	6,351	(47)	
Guyana	(47)	(139)	0	35	82	75	5	6	2,512	2,410	54	64	3,807	16.1	10,523	32	
Paraguay	52	(49)	5	1	112	95	1	2	2,534	2,372	73	74	2,137	25.6	14,044	(3)	
Peru	1,346	2,325	212	289	183	220	23	42	2,143	2,121	55	54	2,915	18.2	9,165	10	
Suriname	(99)	(30)	0	19	66	95	0	0	2,507	2,580	66	65	3,778	(5.9)	11,827	51	
Uruguay	(383)	(582)	0	0	64	63	27	14	2,711	2,738	82	87	3,016	37.4	10,232	43	
Venezuela	2,925	2,249	0	0	293	205	51	42	2,673	2,494	70	65	2,719	26.4	9,446	10	
ASIA	X	77,933	X	3,435	X	109	15	24	X	X	X	X	2,895	X	15,195	X	
Afghanistan, Islamic State	78	190	a	213	116	109	110	0	0	2,139	1,696	X	X	1,292	(2.7)	16,742	12
Armenia, Rep	X	452	X	307	X	377	50	21	X	1,864	X	57	1,431	X	13,043	X	
Azerbaijan	X	626	X	221	X	185	46	30	X	2,293	X	70	1,599	X	11,589	X	
Bangladesh	2,218	1,539	1,365	809	115	109	0	0	1,954	2,023	42	44	2,602	17.6	10,635	1	
Bhutan	X	X	6	4	X	X	0	0	X	X	X	X	1,091	(28.4)	10,750	33	
Cambodia	94	98	51	68	108	106	0	0	1,777	1,805	43	43	1,638	23.1	6,076	(0)	
China	10,648	10,887	200	166	103	103	18	31	2,681	3,082	59	68	4,673	16.6	16,583	8	
Georgia	X	732	X	478	X	362	51	26	X	2,248	0	65	1,881	X	13,624	X	
India	1,452	(2,690)	278	304	101	99	2	4	2,157	2,397	54	58	2,136	26.0	16,936	16	
Indonesia	2,096	5,406	270	26	106	110	4	20	2,331	2,609	49	62	3,895	11.3	11,647	15	
Iran, Islamic Rep	4,457	5,308	11	22	145	132	21	19	2,787	2,899	74	77	1,826	31.0	20,930	25	
Iraq	4,077	1,296	0	83	309	150	28	16	3,172	2,264	84	53	717	(31.2)	16,102	(3)	
Israel	1,637	2,512	6	0	748	1,524	56	49	3,100	3,116	104	105	1,424	(14.3)	37,005	(3)	
Japan	26,567	29,275	(397)	(522)	271	312	48	54	2,803	2,890	89	95	6,119	3.6	26,890	7	
Jordan	675	1,412	34	153	877	1,800	40	57	2,713	2,727	74	75	1,209	51.2	25,256	33	
Kazakhstan, Rep	X	(4,070)	X	20	X	74	60	39	X	2,809	X	95	650	X	8,815	X	
Korea, Dem People's Rep	131	804	0	270	102	122	0	0	2,691	2,310	84	81	3,472	(18.4)	12,059	(8)	
Korea, Rep	6,445	11,907	0	0	171	270	35	54	3,083	3,229	81	84	5,813	0.3	20,090	(8)	
Kuwait	481	478	0	0	29,710	25,969	46	42	3,070	2,915	93	88	4,937	2.3	18,434	(7)	
Kyrgyz Rep	X	426	X	120	X	147	68	33	X	2,505	X	81	1,923	X	13,713	X	
Lao People's Dem Rep	41	29	4	19	103	103	0	0	2,148	2,106	55	55	2,561	18.6	9,005	(4)	
Lebanon	508	724	25	8	1,929	1,057	27	43	2,909	3,275	79	83	1,969	31.7	23,041	15	
Malaysia	2,192	3,612	0	0	226	267	39	56	2,706	2,782	58	65	3,052	12.6	9,701	4	
Mongolia	19	91	0	12	102	129	0	0	2,398	1,917	79	67	734	(70.1)	7,505	(60)	
Myanmar	(839)	(481)	2	3	94	97	0	0	2,563	2,619	65	66	3,015	4.3	8,995	(10)	
Nepal	(3)	61	20	38	100	102	0	0	1,951	2,126	53	59	1,819	12.9	7,704	19	
Oman	X	X	X	X	100	100	0	0	X	X	X	X	2,180	27.9	22,917	4	
Pakistan	(718)	1,101	455	63	99	105	3	4	2,177	2,399	53	61	1,943	14.6	14,233	22	
Philippines	1,524	2,560	101	38	114	118	18	31	2,161	2,370	51	56	2,283	19.7	6,880	9	
Saudi Arabia	6,404	4,244	(66)	(0)	522	186	77	74	2,855	2,395	79	72	4,143	15.1	19,496	11	
Singapore	X	X	X	X	X	X	42	23	X	X	X	X	X	X	10,000	(11)	
Sri Lanka	810	1,062	344	268	145	155	0	0	2,295	2,242	47	48	2,568	(11.4)	8,903	(17)	
Syrian Arab Rep	1,581	478	33	35	172	109	29	21	3,245	3,245	88	85	1,660	45.9	18,710	9	
Tajikistan, Rep	X	536	X	131	X	369	36	19	X	2,190	X	69	1,109	100.0	22,389	100	
Thailand	(7,767)	(5,420)	37	4	68	78	16	50	2,215	2,365	49	53	2,434	13.5	13,671	(1)	
Turkey	(204)	(303)	2	1	99	99	32	33	3,319	3,527	97	102	2,019	0.3	23,402	19	
Turkmenistan, Rep	X	588	X	63	X	155	42	37	X	2,681	X	80	2,570	100.0	4,603	100	
United Arab Emirates	295	696	0	0	5,244	10,362	29	15	3,308	3,323	104	102	7,528	36.8	19,741	42	
Uzbekistan, Rep	X	1,793	X	0	X	169	40	19	X	2,598	X	79	1,762	X	10,168	X	
Vietnam	288	(1,729)	18	57	102	93	0	0	2,246	2,302	50	55	3,504	23.3	6,833	(7)	
Yemen	932	1,705	55	52	312	315	0	0	2,023	2,130	58	56	1,046	40.9	13,363	(71)	
OCEANIA	(16,424)	(13,382)	(423)	(242)	42	44	56	57 </									

Sources and Technical Notes

Data Table 10.1

Food and Agricultural Production, 1984–96

Source: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT Statistical Database* (FAO, Rome, 1997).

Indexes of agricultural production and food production portray the disposable output (after deduction for feed and seed) of a country's agriculture sector relative to the base period 1989–91. For a given year and country, the index is calculated as the disposable average output of a commodity in terms of weight or volume during the period of interest multiplied by the 1989–91 average national producer price per unit. The index represents the total value of the commodity for that period in terms of the 1989–91 price. The values of all crop and livestock products are totaled to yield an aggregated value of agricultural production in 1989–91 prices. The ratio of this aggregate for a given year to that for 1989–91 is multiplied by 100 to obtain the index number.

The multiplication of disposable outputs with the 1989–91 unit value eliminates inflationary or deflationary distortions. However, the base period's relative prices among the individual commodities are also preserved. Especially in economies with high inflation, price patterns among agricultural commodities can change dramatically over time.

The continental and world index values for a given year are calculated by totaling the disposable outputs of all relevant countries for each agricultural commodity. Each of these aggregates is multiplied by a respective 1989–91 average "international" producer price and then summed to give a total agricultural output value for that region or for the world in terms of 1989–91 prices. This method avoids distortion caused by the use of international exchange rates. The agricultural production index includes all crop and livestock products originating in each country. The food production index covers all edible agricultural products that contain nutrients. Coffee and tea are excluded.

Average production of cereals includes cereal production for feed and seed. Cereals comprise all cereals harvested for dry grain, exclusive of crops cut for hay or harvested green. *Average production of roots and tubers* covers all root crops grown principally for human consumption, such as cassava, yucca, taro, and yams; root crops grown principally for feed are excluded. *Average production of pulses* includes those harvested for dry harvest only, such as lentils, pigeon peas, cowpeas, and vetches, and does not exclude those used for feed.

For more information, please refer to *FAOSTAT Statistical Database* at: <http://www.fao.org>.

Data Table 10.2

Agricultural Land and Inputs, 1982–94

Sources: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT Statistical Database* (FAO, Rome, 1997). Per capita figures: United Nations (U.N.) Population Division, *World Population Prospects, 1950–2050 (The 1996 Revision)*, on diskette (U.N., New York, 1996).

Cropland refers to land under temporary and permanent crops, temporary meadows, market and kitchen gardens, and temporarily fallow land. Permanent cropland is land under crops that do not need to be replanted after each harvest, such as cocoa, coffee, fruit trees, rubber, and vines. Human population data used to calculate hectares per capita are for 1994. For trends in cropland area, see Data Table 11.4. *Irrigated land as a percentage of cropland* refers to areas purposely provided with water, including land flooded by river water for crop production or pasture improvement, whether or not this area is irrigated several times or only once during the year.

Annual fertilizer use refers to the application of nutrients in terms of nitrogen (N), phosphate (P₂O₅), and potash (K₂O). The fertilizer year is July 1–June 30.

Tractors generally refer to wheeled and crawler tractors used in agriculture. Garden tractors are excluded. *Harvesters* refer to harvesters and threshers.

For more information, please refer to the FAOSTAT Statistics Database at: <http://www.fao.org>.

Data Table 10.3

Food Security, 1982–97

Sources: Trade, food aid, calorie-supply, protein-supply, and yield data: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT Statistical Database* (FAO, Rome, 1997). Population data: United Nations (U.N.) Population Division, *World Population Prospects, 1950–2050 (The 1996 Revision)*, on diskette (U.N., New York, 1996). Feed data: Economic Research Service, U.S. Department of Agriculture (USDA), *PS&D View*, online data (USDA, Washington, D.C., 1997).

Figures shown for food trade are *net* imports or exports. Exports were subtracted from imports. Trade in cereals includes wheat and wheat flour, rice, barley, maize, rye, and oats.

Two definitions of trade are used by countries reporting trade data. "Special trade" refers only to imports for domestic consumption and exports of domestic goods. "General trade" encompasses total

imports and total exports, including reexports. In some cases, trade figures include goods purchased by a country that are reexported to a third country without ever entering the purchasing country. For information on the definition used by a particular country, see the *FAO Trade Yearbook 1996* (FAO, Rome, 1997).

Average annual donations or receipts of cereals refers to the donation or concessional sale of food commodities. Cereals include wheat, rice, coarse grains, bulgur wheat, wheat flour, and the cereal component of blended foods. Food aid data are reported by donor countries and international organizations and are shown as either positive or negative numbers: receipts are shown as positive numbers and donations as negative numbers in parentheses. For countries that are both recipients and donors of food aid, donations were subtracted from receipts.

Grains fed to livestock as a percent of total grain consumption was calculated using USDA grain consumption and feed numbers. Grains include wheat, rice (milled weight), corn, barley, sorghum, millet, rye, oats, and mixed grains. Grain consumption is the total domestic use during the local marketing year of the individual country. It is the sum of feed, food, seed, and industrial uses.

Average daily per capita calorie supply and average daily per capita protein supply are from FAO food balance sheets. Figures are arrived at by adding values from all food sources: domestic production, international trade, stock draw-downs, and foreign aid. The quantity of food available for human consumption, as estimated by the FAO, is the amount that reaches the consumer. The calories and protein actually consumed may be lower than the figures shown, depending on how much is lost during home storage, preparation, and cooking, and how much is fed to pets and domestic animals or discarded.

Crop yields (average yield of cereals and average yield of roots and tubers per unit area) are calculated from production and area data. Area refers to the area harvested. Cereals include wheat, rice, corn, barley, sorghum, millet, rye, oats, and other grains such as mixed grains and buckwheat. Roots and tubers include all root crops grown principally for human consumption, including yautia and arrowroot. Root crops grown principally for feed—such as turnips, mangels, and swedes—are excluded.

For more information, please refer to the *FAOSTAT Statistical Database* at: <http://www.fao.org>. A PS&D (Production, Supply, and Distribution) view of USDA can be found at <http://www.mannlib.cornell.edu/data-sets/international/93002/>.