

Annex A

Tables on Population and Agricultural and Fisheries Production in Asia

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Table A1: Population Growth in Asia

	Population ('000 persons) ^a			Average Growth (percent per year) ^b	
	1977	1987	1997	1977-1986	1987-1997
World	4,227,160	5,020,682	5,848,731	1.72	1.55
Asia	2,447,900	2,951,890	3,538,452	1.87	1.82
East Asia	1,110,316	1,270,006	1,417,661	1.35	1.13
China, People's Rep. of	958,438	1,104,216	1,243,738	1.41	1.23
Japan	113,882	122,078	125,638	0.75	0.31
Korea, Rep. of	36,465	41,681	45,717	1.39	0.93
Mongolia	1,531	2,031	2,568	2.79	2.42
Southeast Asia	337,521	416,487	496,843	2.12	1.79
Cambodia	6,824	7,919	10,516	0.94	2.87
Indonesia	141,748	173,666	203,480	2.06	1.61
Lao PDR	3,097	3,819	5,194	1.89	3.08
Malaysia	12,831	16,541	21,018	2.50	2.42
Myanmar	31,776	39,073	46,765	2.08	1.81
Philippines	45,081	57,091	70,724	2.38	2.14
Thailand	43,587	52,996	59,159	2.03	1.16
Viet Nam	50,259	62,550	76,548	2.20	2.03
South Asia	851,677	1,062,962	1,291,153	2.21	1.97
Afghanistan	15,892	14,165	22,132	-0.90	3.97
Bangladesh	81,143	103,670	122,013	2.53	1.67
Bhutan	1,209	1,531	1,862	2.30	2.03
India	647,230	801,1	93960,178	2.13	1.84
Maldives	145	196	273	2.93	3.34
Nepal	13,447	17,370	22,591	2.55	2.62
Pakistan	78,539	108,350	143,831	3.13	2.88
Sri Lanka	14,072	16,487	18,273	1.63	1.05
Central Asia			55,250		1.18
Kazakhstan			16,832		-0.01
Kyrgyz Republic			4,481		0.15
Uzbekistan			23,656		1.98
Tajikistan			6,046		1.78
Turkmenistan			4,235		1.98

^a Population is the average in that year.

^b Average annual growth rate is calculated by $(\ln(\text{end year}) - \ln(\text{begin year})) * 100 / \text{number of years in period}$.

Growth rates of Central Asian countries represent 1992-1997.

Source: FAOSTAT Agriculture Data. Population. 28 August 1998. Available: <http://apps.fao.org>

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Table A2: Cereal and Pulse Production in Asia, 1977-1997

Crop	Production ^a		Average Growth (percent per year)	
	1977	1997	1977-1986	1987-1997
Rice				
Million t	330.305	509.445	3.48	1.99
Million ha	127.205	132.673	0.11	0.40
t/ha	2.596	3.840	3.35	1.52
Wheat				
Million t	91.204	198.582	7.86	3.69
Million ha	59.209	66.844	1.19	0.55
t/ha	1.540	2.970	6.22	2.97
Maize				
Million t	69.088	147.440	4.31	4.98
Million ha	34.620	40.406	0.23	1.03
t/ha	1.994	3.647	4.04	3.44
Pulses				
Million t	21.540	24.108	0.67	1.43
Million ha	34.057	35.460	-0.03	1.31
t/ha	0.633	0.680	0.72	0.07
Sorghum				
Million t	19.970	15.765	-0.194	1.43
Million ha	20.577	13.222	-0.398	-1.93
t/ha	0.971	1.191	0.013	1.36
Millet				
Million t	16.705	14.088	-0.139	-0.83
Million ha	23.751	15.887	-0.440	-1.85
t/ha	0.703	0.886	0.010	1.48
Barley				
Million t	8.362	6.235	-0.102	-1.22
Million ha	5.151	3.061	-0.117	-2.27
t/ha	1.623	2.035	0.030	1.83

^a three-year running average

Source: FAOSTAT Database. Available: <http://apps.fao.org>

Table A3: Asia's Other Crops^a, 1977-1997

Crop	Production		Average Growth (percent per year)	
	1977 ^b	1996	1977-1986	1987-1997
Oils (excluding oil palm)				
Million t	51.389	106.400	4.28	4.68
Million ha	39.849	62.417	2.96	2.29
t/ha	1.290	1.705	1.05	1.99
Soybean				
Million t	8.557	20.958	6.56	5.33
Million ha	8.364	15.239	3.48	3.76
t/ha	1.022	1.376	2.40	1.23
Peanuts				
Million t	9.587	20.769	4.75	4.19
Million ha	10.466	13.415	1.39	0.82
t/ha	0.916	1.549	2.97	3.10
Cottonseed				
Million t	7.789	18.140	9.15	2.89
Rapeseed				
Million t	3.600	16.276	15.67	8.27
Million ha	6.431	13.984	4.70	4.72
t/ha	0.559	1.164	7.68	2.40
Sunflower				
Million t	0.330	2.937	66.71	5.47
Million ha	0.464	3.177	44.15	3.72
t/ha	0.706	0.925	5.11	1.36
Sesame				
Million t	1.013	1.717	5.97	1.82
Million ha	3.848	4.090	1.93	-0.39
t/ha	0.263	0.420	3.56	2.33
Linseed				
Million t	0.629	0.845	-0.93	-1.05
Million ha	2.222	1.701	-2.61	2.10
t/ha	0.282	0.497	2.22	-3.22
Castor				
Million t	0.363	1.084	9.99	7.39
Million ha	0.705	1.072	4.62	1.47
t/ha	0.518	1.012	4.14	5.00
Safflower				
Million t	0.215	0.471	12.64	2.14
Million ha	0.688	0.738	3.43	-2.39
t/ha	0.314	0.642	7.31	6.22
Vegetables				
Million t	124.342	335.268	6.27	6.84
Million ha	10.941	20.814	3.76	4.01
t/ha	11.361	16.109	1.92	1.96

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Table A3 (continued)

Crop	Production		Average Growth (percent per year)	
	1977 ^b	1996	1977-1986	1987-1997
Beverages				
Million t	1.760	3.679	4.99	3.74
Million ha	2.654	3.971	2.38	2.37
t/ha	0.663	0.926	2.27	1.03
Tobacco				
Million t	2.261	4.383	5.71	3.26
Million ha	1.944	2.671	2.45	1.30
t/ha	1.161	1.633	2.85	1.58
Nuts				
Million t	0.654	1.123	2.84	3.76
Million ha	0.580	1.192	7.25	2.77
t/ha	1.127	0.941	-2.72	0.69
Cotton				
Million t	3.913	9.156	9.10	1.09
Million ha	11.688	27.265	9.14	2.93
Roots and tubers				
Million t	215.731	255.941	0.15	1.95
Million ha	17.460	16.358	-1.21	0.53
t/ha	12.347	15.643	1.53	1.31
Potato				
Million t	40.070	75.862	2.05	6.46
Million ha	3.187	5.217	2.30	3.36
t/ha	12.567	14.537	-0.14	2.34
Sweet potato				
Million t	133.403	128.707	-1.29	1.13
Million ha	10.518	7.185	-3.21	-0.34
t/ha	12.678	17.913	2.68	1.51
Cassava				
Million t	39.669	48.211	2.92	-0.68
Million ha	3.468	3.645	1.42	-0.77
t/ha	11.427	13.232	1.47	0.14

^a includes fibers, oils, roots, sugar, coffee, tea, tobacco, rubber, vegetables, fruits, and nuts

^b three-year running average

Source: FAOSTAT database. Available: <http://apps.fao.org>

Table A4: Diversification in Asia's Cropping Systems, 1977-1997

	Cropping System	Area (ha million)		Area (percent of total)	
		1977 ^a	1997	1977 ^a	1997
East Asia					
China, People's Rep. of	Foodgrains	101.286	93.516	69.6	53.0
	Others	44.283	82.780	30.4	46.9
Japan	Foodgrains	2.982	2.245	75.4	75.7
	Others	0.975	0.720	24.6	24.3
Korea, Rep. of	Foodgrains	1.380	1.104	68.0	72.0
	Others	0.649	0.430	32.0	28.0
Southeast Asia					
Cambodia	Foodgrains	0.988	2.013	91.3	91.5
	Others	0.094	0.188	8.7	8.5
Indonesia	Foodgrains	11.052	15.554	63.2	53.9
	Others	6.440	13.327	36.8	46.1
Lao PDR	Foodgrains	0.624	0.606	92.6	83.0
	Others	0.050	0.124	7.4	17.0
Malaysia	Foodgrains	0.748	0.696	20.6	10.5
	Others	2.878	5.911	79.4	89.5
Myanmar	Foodgrains	5.849	8.068	76.3	76.2
	Others	1.813	2.519	23.7	23.8
Philippines	Foodgrains	6.896	6.658	60.1	55.7
	Others	4.582	5.296	39.9	44.3
Thailand	Foodgrains	9.526	11.046	76.6	70.0
	Others	2.910	4.742	23.4	30.0
Viet Nam	Foodgrains	5.737	7.850	81.5	75.8
	Others	1.302	2.512	18.5	24.2
South Asia					
Afghanistan	Foodgrains	3.117	2.084	88.3	88.7
	Others	0.412	0.267	11.7	11.3
Bangladesh	Foodgrains	11.378	11.502	87.3	85.1
	Others	1.651	2.016	12.7	14.9
Bhutan	Foodgrains	0.094	0.092	86.1	79.6
	Others	0.015	0.024	13.9	20.4
India	Foodgrains	122.59	125.47	67.2	58.9
	Others	59.739	87.426	32.8	41.1
Nepal	Foodgrains	2.388	3.541	89.5	87.4
	Others	0.280	0.511	10.5	12.6
Pakistan	Foodgrains	11.381	13.887	78.1	64.6
	Others	3.1956	7.597	21.9	35.4
Sri Lanka	Foodgrains	0.790	0.827	38.9	45.4
	Others	1.240	0.995	61.1	54.6

Source: FAOSTAT Database. Available: <http://apps.fao.org>

Table A5: Contributions to Total Crop Area From Individual Crops, 1977 and 1997

Crop	Percent of Total Crop Area ^a		Percent Change
	1977 ^b	1997	1977-1997
Rice	30.84	27.44	-3.40
Wheat	14.35	13.82	-0.53
Maize	8.39	8.36	-0.04
Sorghum	1.25	0.63	-0.62
Millet	4.99	2.73	-2.25
Pulses	8.26	7.33	-0.92
Cereals + Pulses	73.84	63.60	-10.24
Oils ^c	9.89	14.20	4.31
Fibers	3.72	6.19	2.47
Roots	4.23	3.38	-0.85
Sugar	1.52	1.90	0.38
Beverages	0.64	0.82	0.18
Tobacco	0.47	0.55	0.08
Rubber	1.24	1.34	0.11
Vegetables	2.65	4.30	1.65
Fruits	1.66	3.46	1.81
Nuts	0.14	0.25	0.11
Others	26.16	36.40	10.24

^a harvested area

^b three-year moving average

^c including oil palm

Source: FAOSTAT Database. Available: <http://apps.fao.org>

Table A6: Rice Yield and Yield Growth in 1977 and 1997, by Country

	Yield (t/ha)		Average Growth (percent per year)	
	1977 ^a	1997	1977-1986	1987-1997
East Asia				
China, People's Rep. of	3.704	6.187	5.22	1.77
Japan	5.948	6.433	0.41	0.58
Korea, Rep. of	6.564	6.545	0.53	0.49
Southeast Asia				
Cambodia	1.033	1.474	2.68	0.63
Indonesia	2.821	4.477	5.00	1.05
Lao PDR	1.249	2.541	7.18	2.40
Malaysia	2.639	3.032	0.00	1.61
Myanmar	1.981	3.204	6.92	0.99
Philippines	1.945	2.892	4.45	0.91
Thailand	1.797	2.219	1.63	0.98
Viet Nam	1.988	3.689	4.18	3.39
South Asia				
Afghanistan	2.025	1.765	1.14	-0.99
Bangladesh	1.887	2.636	1.91	1.61
Bhutan	2.000	1.589	-0.27	-0.69
India	1.863	2.871	2.41	2.44
Nepal	1.850	2.284	0.21	0.32
Pakistan	2.367	2.780	0.75	2.05
Sri Lanka	2.122	3.365	5.44	1.33
Asia	2.596	3.840	3.35	1.50
	1988	1992		
USA	6.175	6.413		
Australia	6.975	8.813		
		1990-1995		
Punjab		3.353		
Haryana		2.759		

^a three-year running average

Source: FAOSTAT Database. Available: <http://apps.fao.org>

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Table A7: Wheat Yield and Yield Growth in 1977 and 1997, by Country

	Yield (t/ha)		Average Growth (percent per year)	
	1977 ^a	1997	1977-1986	1987-1997
East Asia				
China, People's Rep. of	1.695	3.787	8.73	3.33
Japan	2.840	3.196	2.61	-0.35
Korea, Rep. of	1.999	4.134	6.38	3.75
Southeast Asia				
Myanmar	0.852	1.088	11.96	-2.55
South Asia				
Afghanistan	1.193	1.146	0.15	-0.30
Bangladesh	1.639	1.962	4.97	1.35
Bhutan	1.004	0.738	0.18	0.37
India	1.426	2.533	4.26	3.10
Nepal	1.112	1.555	2.69	1.75
Pakistan	1.390	2.051	2.60	2.37
Asia	1.562	3.003	6.21	2.96
		1990-95		
Punjab Haryana	3.878	3.599		

^a three-year running average

Source: FAOSTAT Database. Available: <http://apps.fao.org>

Table A8: Maize Yield and Yield Growth in 1977 and 1997, by Country

	Yield (t/ha)		Average Growth (percent per year)	
	1977 ^a	1997	1977-1986	1987-1997
East Asia				
China, People's Rep. of	2.609	4.867	5.07	2.76
Japan	2.722	2.476	-2.81	0.12
Korea, Rep. of	2.768	4.148	8.98	-1.64
Southeast Asia				
Cambodia	1.295	1.259	-1.97	3.19
Indonesia	1.261	2.394	5.11	2.45
Lao PDR	1.170	2.328	-0.15	7.76
Malaysia	1.458	1.816	1.41	0.26
Myanmar	0.882	1.569	11.99	-0.20
Philippines	0.895	1.568	2.87	4.46
Thailand	2.076	3.219	1.41	4.41
Viet Nam	1.085	2.384	3.48	7.20
South Asia				
Afghanistan	1.620	1.812	0.39	1.00
Bangladesh	0.846	1.026	-0.09	0.75
Bhutan	1.400	0.874	-0.25	0.44
India	1.062	1.589	2.09	2.76
Nepal	1.697	1.668	-0.69	0.98
Pakistan	1.235	1.437	0.41	0.72
Sri Lanka	0.699	1.004	6.29	-1.28
Asia	1.994	3.647	4.04	3.34
	1988	1992		
USA	5.313	8.250		
France	7.169	7.888		

^a three-year running average

Source: FAOSTAT Database. Available: <http://apps.fao.org>

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Table A9: Harvested Area of Coconuts in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	0	13,000	29,320		8.13
China, People's Rep. of	0	13,000	29,320		8.13
Southeast Asia	5,006,200	6,235,039	6,776,274	2.20	0.83
Brunei	238	90	90	-9.72	0.00
Cambodia	0	8,000	11,000		3.18
Indonesia	1,655,000	2,096,762	2,547,761	2.37	1.95
Malaysia	344,000	320,591	260,000	-0.70	-2.09
Myanmar	17,806	26,738	31,033	4.07	1.49
Philippines	2,713,960	3,252,000	3,314,390	1.81	0.19
Thailand	223,200	331,558	352,000	3.96	0.60
Viet Nam	51,996	199,300	260,000	13.44	2.66
South Asia	1,535,839	1,795,145	2,285,755	1.56	2.42
Bangladesh	26,867	31,560	32,036	1.61	0.15
India	1,056,500	1,346,000	1,810,000	2.42	2.96
Maldives	1,000	1,000	1,300	0.00	2.62
Pakistan	0	162	560		12.40
Sri Lanka	451,472	416,423	441,859	-0.81	0.59
Total Asia	6,544,043	8,043,934	9,091,364	2.06	1.22

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A10: Output of Coconuts in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	56,000	80,000	116,970	3.57	3.80
China, People's Rep. of	56,000	80,000	116,970	3.57	3.80
Southeast Asia	20,808,930	24,835,079	30,827,220	1.77	2.16
Brunei	285	140	130	-7.11	-0.74
Cambodia	42,000	42,000	58,000	0.00	3.23
Indonesia	8,150,000	1,920,000	14,710,000	2.93	2.98
Malaysia	1,123,000	1,022,000	967,000	-0.94	-0.55
Myanmar	92,668	229,500	209,300	9.07	-0.92
Philippines	10,281,000	10,520,000	12,052,790	0.23	1.36
Thailand	927,400	1,310,486	1,430,000	3.46	0.87
Viet Nam	192,577	790,953	1,400,000	14.13	5.71
South Asia	5,484,580	7,236,491	11,903,655	2.77	4.98
Bangladesh	68,497	82,615	89,255	1.87	0.77
India	4,022,000	5,402,000	9,800,000	2.95	5.96
Maldives	10,083	9,560	13,000	-0.53	3.07
Pakistan	0	316	2,400		20.27
Sri Lanka	1,384,000	1,742,000	1,999,000	2.30	1.38
Total Asia	26,361,910	32,156,650	42,847,971	1.99	2.87

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A11: Yield of Coconuts in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia					
China, People's Rep. of	0	6,154	3,989		-4.33
Southeast Asia	3,748	4,992	5,148	2.86	0.31
Brunei	1,198	1,556	1,444	2.62	-0.74
Cambodia	0	5,250	5,273		0.04
Indonesia	4,925	5,208	5,774	0.56	1.03
Malaysia	3,265	3,188	3,719	-0.24	1.54
Myanmar	3,204	8,583	6,744	5.00	-2.41
Philippines	3,788	3,235	3,637	-1.58	1.17
Thailand	4,155	3,953	4,063	-0.50	0.27
Viet Nam	3,704	3,969	5,385	0.69	3.05
South Asia	4,876	5,581	6,753	1.35	1.91
Bangladesh	2,550	2,618	2,786	0.26	0.62
India	3,807	4,103	5,414	0.53	2.99
Maldives	10,083	9,560	10,000	-0.53	0.45
Pakistan	0	1,951	4,286	-0.53	0.45
Sri Lanka	3,066	4,183	4,524	3.11	0.78
Asia	4,028	3,998	4,713	-0.08	1.65

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A12: Harvested Area of Rubber in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	0	365,000	395,000		0.79
China, People's Rep. of	0	365,000	395,000		0.79
Southeast Asia	4,658,835	5,140,648	5,774,123	0.98	1.16
Brunei	3,936	3,200	2,800	-2.07	-1.34
Cambodia	20,000	30,000	45,000	4.05	4.05
Indonesia	1,557,000	1,884,033	2,260,471	1.91	1.82
Malaysia	1,800,000	1,535,000	1,470,000	-1.59	-0.43
Myanmar	46,539	40,677	45,852	-1.35	1.20
Philippines	58,540	84,038	92,879	3.62	1.00
Thailand	1,094,720	1,360,000	1,527,721	2.17	1.16
Viet Nam	78,100	203,700	329,400	9.59	4.81
South Asia	412,563	442,200	559,200	0.69	2.35
Bangladesh	0	0	27,000		
India	186,000	237,100	374,000	2.43	4.56
Sri Lanka	226,563	205,100	158,200	-1.00	-2.60
Total Asia	5,071,398	5,947,848	6,728,323	1.59	1.23

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

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Table A13: Output of Rubber in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	91,700	238,000	451,970	9.54	6.41
China, People's Rep. of	91,700	238,000	451,970	9.54	6.41
Southeast Asia	3,004,417	4,015,029	5,243,550	2.90	2.67
Cambodia	15,000	25,000	40,000	5.11	4.70
Indonesia	853,978	1,130,351	1,548,609	2.80	3.15
Malaysia	1,588,053	1,578,700	1,082,400	-0.06	-3.77
Myanmar	14,940	15,031	25,961	0.06	5.46
Philippines	58,198	147,247	197,160	9.28	2.92
Thailand	430,900	1,067,000	2,168,720	9.07	7.09
Viet Nam	43,348	51,700	180,700	1.76	12.51
South Asia	295,843	341,306	650,783	1.43	6.45
Bangladesh	0	0	3,000		
India	149,600	219,500	542,000	3.83	9.04
Sri Lanka	146,243	121,806	105,783	-1.83	-1.41
Total Asia	3,392,165	4,594,520	6,346,483	3.03	3.23

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A14: Yield of Rubber in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	0	652	1,144		5.62
China, People's Rep. of	0	652	1,144		5.62
Southeast Asia	606	775	951	2.46	2.05
Brunei	406	578	643	3.53	1.07
Cambodia	750	833	889	1.05	0.65
Indonesia	549	600	685	0.89	1.32
Malaysia	882	1,029	736	1.54	-3.35
Myanmar	321	370	566	1.42	4.25
Philippines	994	1,752	2,123	5.67	1.92
Thailand	394	785	1,420	6.89	5.93
Viet Nam	555	254	549	-7.82	7.71
South Asia	752	760	743	0.47	-0.23
Bangladesh	0	0	111		
India	804	926	1,449	1.41	4.48
Sri Lanka	646	594	669	-0.84	1.19
Asia	6,689	7,725	9,432	1.44	2.00

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A15: Harvested Area of Tea in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	1,101,752	893,113	912,700	-2.10	0.22
China, People's Rep. of	1,041,832	832,663	860,000	-2.24	0.32
Japan	59,700	59,900	51,800	0.03	-1.45
Korea, Rep. of	220	550	900	9.16	4.92
Southeast Asia	179,125	213,948	266,871	1.78	2.21
Indonesia	79,079	98,463	114,287	2.19	1.49
Lao PDR	70	190	395	9.99	7.32
Malaysia	2,734	3,355	2,953	2.05	-1.28
Myanmar	51,000	55,400	61,236	0.83	1.00
Thailand	3,200	13,000	17,000	14.02	2.68
Viet Nam	43,042	43,540	71,000	0.12	4.89
South Asia	654,454	679,783	679,553	0.38	0.00
Bangladesh	42,998	45,785	48,308	0.63	0.54
India	369,184	411,700	440,000	1.09	0.66
Nepal	260	800	772	11.24	-0.36
Sri Lanka	242,012	221,498	190,473	-0.89	-1.51
Total Asia	2,013,684	1,899,558	2,021,793	-0.58	0.62

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A16: Output of Tea in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	380,904	631,378	728,697	5.05	1.43
China, People's Rep. of	278,403	534,578	636,497	6.52	1.75
Japan	102,301	96,300	91,200	-0.60	-0.54
Korea, Rep. of	200	500	1,000	9.16	6.93
Southeast Asia	121,034	177,918	230,673	3.85	2.60
Indonesia	82,928	126,096	149,463	4.19	1.70
Lao PDR	65	502	110	20.44	-15.18
Malaysia	4,542	4,830	6,000	0.61	2.17
Myanmar	14,800	14,100	17,700	-0.48	2.27
Thailand	400	3,400	5,100	21.40	4.05
Viet Nam	18,299	28,990	52,300	4.60	5.90
South Asia	802,274	873,012	1,143,077	0.84	2.70
Bangladesh	37,022	37,595	53,310	0.15	3.49
India	556,267	620,800	810,000	1.10	2.66
Nepal	413	1,290	2,906	11.39	8.12
Sri Lanka	208,572	213,327	276,861	0.23	2.61
Total Asia	1,406,904	1,866,014	2,344,204	2.82	2.28

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

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Table A17: Yield of Tea in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	2,890	3,159	3,612		
China, People's Rep. of	267	642	740	8.77	1.42
Japan	1,714	1,608	1,761	-0.64	0.91
Korea, Rep. of	909	909	1,111	0.00	2.01
Southeast Asia	686	1,091	824	4.64	-2.80
Indonesia	1,049	1,281	1,308	2.00	0.21
Lao PDR	929	2,642	279	10.45	-22.48
Malaysia	1,296	1,440	2,032	1.05	3.44
Myanmar	290	255	289	-1.29	1.25
Thailand	125	262	300	7.40	1.35
Viet Nam	425	666	737	4.49	1.01
South Asia	1,205	1,226	2,041	0.18	5.09
Bangladesh	861	821	1,104	-0.48	2.96
India	1,507	1,508	1,841	0.01	2.00
Nepal	1,589	1,613	3,764	0.15	8.47
Sri Lanka	862	963	1,454	1.11	4.12
Asia	6,987	9,823	11,595	3.41	1.66

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A18: Harvested Area of Green Coffee in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	12,071	20,000	23,000	5.05	1.40
China, People's Rep. of	12,071	20,000	23,000	5.05	1.40
Southeast Asia	495,116	888,374	1,279,009	5.85	3.64
Cambodia	280	205	350	-3.12	5.35
Indonesia	380,327	652,518	831,782	5.40	2.43
Lao PDR	6,605	14,242	23,345	7.68	4.94
Malaysia	13,450	15,875	14,000	1.66	-1.26
Myanmar	2,478	3,002	4,110	1.92	3.14
Philippines	76,200	143,232	149,455	6.31	0.43
Thailand	8,726	37,920	65,967	14.69	5.54
Viet Nam	7,050	21,380	190,000	11.09	21.85
South Asia	166,921	257,230	258,460	4.32	0.05
India	160,000	243,500	242,000	4.20	-0.06
Sri Lanka	6,921	13,730	16,460	6.85	1.81
Total Asia	682,665	1,183,574	1,592,087	5.50	2.97

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A19: Output of Green Coffee in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	8,052	26,000	48,000	11.72	6.13
China, People's Rep. of	8,052	26,000	48,000	11.72	6.13
Southeast Asia	320,506	599,938	1,087,080	6.27	5.94
Cambodia	85	130	280	4.25	7.67
Indonesia	193,966	388,669	453,956	6.95	1.55
Lao PDR	4,315	5,312	12,300	2.08	8.40
Malaysia	5,400	11,500	10,000	7.56	-1.40
Myanmar	940	1,488	1,696	4.59	1.31
Philippines	105,100	140,119	130,000	2.88	-0.75
Thailand	6,300	25,220	78,548	13.87	11.36
Viet Nam	4,400	27,500	400,300	18.33	26.78
South Asia	112,687	198,130	216,348	5.64	0.88
India	102,300	192,100	205,000	6.30	0.65
Sri Lanka	10,387	6,030	11,348	-5.44	6.32
Total Asia	446,155	829,179	1,361,753	6.20	4.96

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A20: Yield of Green Coffee in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	667	1,300	2,087	6.67	4.73
China, People's Rep. of	667	1,300	2,087	6.67	4.73
Southeast Asia	662	719	896	1.46	2.20
Cambodia	304	634	800	7.35	2.33
Indonesia	510	596	546	1.56	-0.88
Lao PDR	653	373	527	-5.60	3.46
Malaysia	402	724	714	5.88	-0.14
Myanmar	379	496	413	2.69	-1.83
Philippines	1,379	978	870	-3.44	-1.17
Thailand	722	665	1,191	-0.82	5.83
Viet Nam	624	1,286	2,107	7.23	4.94
South Asia	1,070	614	768	-5.55	2.24
India	639	789	847	2.11	0.71
Sri Lanka	1,501	439	689	-12.29	4.51
Asia	654	701	855	0.69	1.99

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

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Table A21: Harvested Area of Oil Palm in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	0	50,500	42,000		-1.84
China, People's Rep. of	0	50,500	42,000		-1.84
Southeast Asia	671,246	1,878,905	4,123,503	10.29	7.86
Indonesia	140,000	421,600	1,622,503	11.02	13.48
Malaysia	521,486	1,373,147	2,317,000	9.68	5.23
Philippines	6,000	15,000	19,000	9.16	2.36
Thailand	3,760	69,158	165,000	29.12	8.70
Total Asia	671,246	1,929,405	4,165,503	10.56	7.70

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A22: Output of Oil Palm in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	480,000	670,000	608,000	3.33	-0.97
China, People's Rep. of	480,000	670,000	608,000	3.33	-0.97
Southeast Asia	9,987,900	32,526,462	73,137,000	11.81	8.10
Indonesia	2,400,000	8,859,147	26,800,000	13.06	11.07
Malaysia	7,500,000	22,800,000	43,700,000	11.12	6.51
Philippines	42,000	139,000	237,000	11.97	5.34
Thailand	45,900	728,315	2,400,000	27.64	11.92
Total Asia	10,467,900	33,196,462	73,745,000	11.54	7.98

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A23: Yield of Oil Palm in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	0	13,267	14,476		0.87
China, People's Rep. of	0	13,267	14,476		0.87
Southeast Asia	12,683	14,354	15,600	1.24	0.83
Indonesia	17,143	21,013	16,518	2.04	-2.41
Malaysia	14,382	16,604	18,861	1.44	1.27
Philippines	7,000	9,267	12,474	2.81	2.97
Thailand	12,207	10,531	14,546	-1.48	3.23
Asia	15,595	17,206	17,704	0.98	0.29

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A24: Harvested Area of Sugar Cane in Asia, 1977-1997

	Harvested Area (ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	662,472	960,164	1,125,700	3.71	1.59
China, People's Rep. of	629,872	925,264	1,103,200	3.85	1.76
Japan	32,600	34,900	22,500	0.68	-4.39
Southeast Asia	1,333,129	1,324,242	2,089,874	-0.07	4.56
Cambodia	3,500	7,000	8,000	6.93	1.34
Indonesia	125,000	310,000	399,554	9.08	2.54
Lao PDR	720	3,843	3,700	16.75	-0.38
Malaysia	20,000	20,406	23,500	0.20	1.41
Myanmar	44,379	56,700	81,300	2.45	3.60
Philippines	573,150	269,270	392,720	-7.55	3.77
Thailand	494,080	520,153	930,000	0.51	5.81
Viet Nam	72,300	136,870	251,100	6.38	6.07
South Asia	3,827,407	4,053,494	2,683,397	0.57	-4.12
Afghanistan	4,000	3,000	2,000	-2.88	-4.05
Bangladesh	144,590	164,708	175,580	1.30	0.64
Bhutan	0	400	410		0.25
India	2,866,200	3,078,700	1,470,000	0.72	-7.39
Nepal	17,990	24,910	46,360	3.25	6.21
Pakistan	787,827	762,000	964,500	-0.33	2.36
Sri Lanka	6,800	19,776	24,547	10.68	2.16
Total Asia	5,837,463	6,367,752	8,627,226	0.87	3.04

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

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Table A25: Output of Sugar Cane in Asia, 1977-1997

	Output (t)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	31,381,866	55,185,505	83,995,800	5.64	4.20
China, People's Rep. of	29,053,866	52,811,505	82,565,800	5.98	4.47
Japan	2,328,000	2,374,000	1,430,000	0.20	-5.07
Southeast Asia	81,086,060	76,687,595	118,049,470	-0.56	4.31
Cambodia	195,000	164,000	187,500	-1.73	1.34
Indonesia	14,516,280	26,130,736	27,763,750	5.88	0.61
Lao PDR	17,840	112,853	95,000	18.45	-1.72
Malaysia	1,000,000	1,207,000	1,600,000	1.88	2.82
Myanmar	1,625,692	3,433,000	4,124,920	7.48	1.84
Philippines	34,820,000	17,600,000	27,000,000	-6.82	4.28
Thailand	26,094,448	24,449,936	45,850,100	-0.65	6.29
Viet Nam	2,816,800	3,590,070	11,428,200	2.43	11.58
South Asia	189,719,149	224,259,298	329,831,243	1.67	3.86
Afghanistan	64,000	60,000	38,000	-0.65	-4.57
Bangladesh	6,503,802	6,895,910	7,520,540	0.59	0.87
Bhutan	0	11,800	12,800		0.81
India	153,007,008	186,089,504	277,249,984	1.96	3.99
Nepal	311,379	616,580	1,629,300	6.83	9.72
Pakistan	29,522,960	29,925,808	41,998,400	0.14	3.39
Sri Lanka	310,000	659,696	1,382,219	7.55	7.40
Total Asia	303,343,895	357,769,314	534,009,928	1.65	4.01

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A26: Yield of Sugar Cane in Asia, 1977-1997

	Yield (kg/ha)			Average Growth (percent per year)	
	1977	1987	1997	1978-1987	1988-1997
East Asia	46,127	57,077	74,842	2.13	2.71
China, People's Rep. of	46,127	57,077	74,842	2.13	2.71
Japan	71,411	68,023	63,556	-0.49	-0.68
Southeast Asia	54,473	49,423	50,124	-0.97	0.14
Cambodia	55,714	23,429	23,438	-8.66	0.00
Indonesia	116,130	84,293	69,487	-3.20	-1.93
Lao PDR	24,778	29,366	25,676	1.70	-1.34
Malaysia	50,000	59,149	68,085	1.68	1.41
Myanmar	36,632	60,547	50,737	5.02	-1.77
Philippines	60,752	65,362	68,751	0.73	0.51
Thailand	52,814	47,005	49,301	-1.17	0.48
Viet Nam	38,960	26,230	45,513	-3.96	5.51
South Asia	35,789	35,599	42,077	-0.05	1.67
Afghanistan	16,000	20,000	19,000	2.23	-0.51
Bangladesh	44,981	41,868	42,833	-0.72	0.23
Bhutan	0	29,500	31,220		0.57
India	53,383	60,444	66,487	1.24	0.95
Nepal	17,308	24,752	35,145	3.58	3.51
Pakistan	37,474	39,273	43,544	0.47	1.03
Sri Lanka	45,588	33,358	56,309	-3.12	5.24
Asia	51,965	56,185	61,898	0.78	0.97

Source: FAOSTAT Database. Agricultural Production Indexes. 22 April 1999. Available: <http://apps.fao.org>

Table A27: Total Pork Production Per Capita in Selected Asian Economies

	Production (t)				Production Per Capita (t per 1,000)			Average Growth (percent per year)		
	1965	1975	1985	1995	1975	1985	1995	1966-1975	1976-1985	1986-1995
East Asia										
China, People's Rep. of	5,491,400	7,847,560	17,377,710	33,233,020	8.5	16.2	27.2	3.57	7.95	6.48
Japan	407,238	1,039,642	1,531,914	1,322,065	9.3	12.7	10.6	9.37	3.88	-1.47
Korea, Rep. of	76,272	98,848	433,750	799,000	2.8	10.6	17.8	2.59	14.79	6.11
Mongolia	500	600	2,200	600	0.4	1.2	0.2	1.82	12.99	-12.99
Taipei, China	na	na	na	na	na	na	na	na	na	na
Southeast Asia										
Cambodia	23,300	24,000	48,100	81,500	3.4	6.5	8.1	0.30	6.95	5.27
Indonesia	115,500	132,000	368,500	588,500	1.0	2.2	3.0	1.34	10.27	4.68
Lao PDR	13,400	9,000	17,800	25,038	3.0	5.0	5.1	-3.98	6.82	3.41
Malaysia	58,636	113,107	153,111	230,160	9.2	9.8	11.4	6.57	3.03	4.08
Myanmar	32,780	60,638	83,050	97,130	2.0	2.2	2.2	6.15	3.15	1.57
Philippines	290,000	323,000	396,942	969,862	7.5	7.3	14.3	1.08	2.06	8.93
Singapore	24,500	55,323	72,156	86,189	24.4	26.6	25.9	8.15	2.66	1.78
Thailand	150,000	175,000	377,500	301,090	4.2	7.4	5.2	1.54	7.69	-2.26
Viet Nam	275,000	247,000	560,668	1,007,000	5.1	9.4	13.6	-1.07	8.20	5.86
South Asia										
Afghanistan	na	na	na	na	na	na	na	na	na	na
Bangladesh	na	na	na	na	na	na	na	na	na	na
Bhutan	606	818	991	1,222	0.7	0.7	0.7	3.00	1.92	2.10
India	148,750	214,200	308,175	420,000	0.3	0.4	0.5	3.65	3.64	3.10
Maldives	na	na	na	na	na	na	na	na	na	na
Nepal	3,600	5,000	7,234	11,027	0.4	0.4	0.5	3.29	3.69	4.22
Pakistan	na	na	na	na	na	na	na	na	na	na
Sri Lanka	995	930	1,260	2,336	0.1	0.1	0.1	-0.68	3.04	6.17
Central Asia										
Kazakhstan	na	na	na	113,400	na	na	6.7	na	na	0
Kyrgyz Republic	na	na	na	17,900	na	na	4.0	na	na	0
Uzbekistan	na	na	na	16,000	na	na	0.7	na	na	0
Tajikistan	na	na	na	1,200	na	na	0.2	na	na	0
Turkmenistan	na	na	na	3,000	na	na	0.7	na	na	0
Total Asia	7,284,905	10,601,171	22,109,992	39,748,000				3.75	7.35	5.87

na = not available; 0 = zero or less than half of the unit measured.

Note: 1. Annual Growth Rate = $(\ln(\text{value year begin}) - \ln(\text{value year end})) / \text{number of years} \times 100$.

Source: FAOSTAT Database: Agricultural Production. Available: <http://apps.fao.org>

Table A28: Total Milk Production Per Capita in Selected Asian Economies

	Production (t)				Production Per Capita (t per 1,000)			Average Growth (percent per year)		
	1965	1975	1985	1995	1975	1985	1995	1966-1975	1976-1985	1986-1995
East Asia										
China, People's Rep. of	1,961,750	2,361,389	4,755,379	9,457,110	2.5	4.4	7.8	1.85	7.00	6.87
Japan	3,223,888	4,961,017	7,380,400	8,382,000	44.5	61.1	67.0	4.31	3.97	1.27
Korea, Rep. of	13,270	163,748	1,010,118	2,004,325	4.6	24.8	44.6	25.13	18.19	6.85
Mongolia	242,800	237,100	269,400	369,600	163.9	141.1	150.1	-0.24	1.28	3.16
Taipei, China	na	na	na	na	na	na	na	na	na	na
Southeast Asia										
Cambodia	15,045	17,850	16,320	19,125	2.5	2.2	1.9	1.71	-0.90	1.59
Indonesia	200,124	186,500	401,000	705,937	1.4	2.4	3.6	-0.71	7.66	5.66
Lao PDR	2,100	2,500	4,000	5,500	0.8	1.1	1.1	1.74	4.70	3.18
Malaysia	33,900	30,740	31,000	42,560	2.5	2.0	2.1	-0.98	0.08	3.17
Myanmar	161,554	265,154	650,672	555,586	8.7	17.3	12.3	4.95	8.98	-1.58
Philippines	26,341	31,179	33,000	34,000	0.7	0.6	0.5	1.69	0.57	0.30
Singapore	na	na	na	na	na	na	na	na	na	na
Thailand	2,300	8,200	57,895	270,000	0.2	1.1	4.6	12.71	19.54	15.40
Viet Nam	19,600	30,000	53,600	73,300	0.6	0.9	1.0	4.26	5.80	3.13
South Asia										
Afghanistan	737,530	848,000	670,100	549,600	55.1	46.2	28.0	1.40	-2.35	-1.98
Bangladesh	1,004,480	1,179,188	1,310,635	1,987,000	15.4	13.2	16.8	1.60	1.06	4.16
Bhutan	19,728	25,080	30,514	31,957	21.6	21.0	18.1	2.40	1.96	0.46
India	19,247,000	25,600,000	44,000,000	66,000,000	41.2	57.3	71.0	2.85	5.42	4.05
Maldives	na	na	na	na	na	na	na	na	na	na
Nepal	575,200	714,520	805,177	1,008,473	55.8	48.8	47.0	2.17	1.19	2.25
Pakistan	6,658,100	8,193,000	10,856,000	18,936,000	109.6	107.3	139.0	2.07	2.81	5.56
Sri Lanka	169,480	184,460	288,720	287,207	13.6	18.0	16.0	0.85	4.48	-0.05
Central Asia										
Kazakhstan	na	na	na	4,603,851	na	na	273.8	na	na	0
Kyrgyz Republic	na	na	na	864,000	na	na	193.7	na	na	0
Uzbekistan	na	na	na	3,780,000	na	na	166.1	na	na	0
Tajikistan	na	na	na	438,000	na	na	75.2	na	na	0
Turkmenistan	na	na	na	727,300	na	na	178.5	na	na	0
Total Asia	44,975,411	58,064,570	89,094,320	142,617,600				2.55	4.28	4.70

na = not available; 0 = zero or less than half of the unit measured.

Note: 1. Annual Growth Rate = ((Ln(value year begin) - Ln(value year end)) / number of years) x 100.

Source: FAOSTAT Database: Agricultural Production. Available: <http://apps.fao.org>

Table A29: Total Poultry Production Per Capita in Selected Asian Economies

	Production (t)				Production Per Capita (t per 1,000)			Average Growth (percent per year)		
	1965	1975	1985	1995	1975	1985	1995	1966-1975	1976-1985	1986-1995
East Asia										
China, People's Rep. of	525,700	814,350	6.72	6,002,313	0.9	1.3	4.9	4.38	5.36	14.62
Japan	204,340	739,873		1,267,000	6.6	11.2	10.1	12.87	6.04	-0.66
Korea, Rep. of	18,923	55,594	126,000	383,000	1.6	3.1	8.5	10.78	8.18	11.12
Mongolia	360	200	300	27	0.1	0.2	0.0	-5.88	4.05	-24.08
Taipei, China	na	na	na	na	na	na	na	na	na	na
Southeast Asia										
Cambodia	4,700	6,150	9,600	15,000	0.9	1.3	1.5	2.69	4.45	4.46
Indonesia	55,200	87,200	318,200	875,700	0.6	1.9	4.4	4.57	12.94	10.12
Lao PDR	6,740	3,864	5,160	9,064	1.3	1.4	1.9	-5.56	2.89	5.63
Malaysia	38,000	94,000	221,400	660,737	7.7	14.1	32.8	9.06	8.57	10.93
Myanmar	18,110	40,374	87,017	98,963	1.3	2.3	2.2	8.02	7.68	1.29
Philippines	80,000	131,627	178,398	399,557	3.1	3.3	5.9	4.98	3.04	8.06
Singapore	18,900	53,182	57,000	60,000	23.5	21.0	18.0	10.35	0.69	0.51
Thailand	117,000	253,000	393,000	780,000	6.1	7.7	13.4	7.71	4.40	6.85
Viet Nam	45,000	50,000	115,000	124,000	1.0	1.9	1.7	1.05	8.33	0.75
South Asia										
Afghanistan	6,800	10,400	12,800	13,680	0.7	0.9	0.7	4.25	2.08	0.66
Bangladesh	26,900	37,100	49,011	89,481	0.5	0.5	0.8	3.21	2.78	6.02
Bhutan	61	111	238	329	0.1	0.2	0.2	5.99	7.63	3.24
India	71,001	88,020	161,100	478,800	0.1	0.2	0.5	2.15	6.04	10.89
Maldives	na	na	na	na	na	na	na	na	na	na
Nepal	3,800	4,600	5,299	9,396	0.4	0.3	0.4	1.91	1.41	5.73
Pakistan	11,500	22,000	102,240	308,000	0.3	1.0	2.3	6.49	15.36	11.03
Sri Lanka	11,000	16,000	18,600	54,000	1.2	1.2	3.0	3.75	1.51	10.66
Central Asia										
Kazakhstan	na	na	na	53,000	na	na	3.2	na	na	0
Kyrgyz Republic	na	na	na	2,700	na	na	0.6	na	na	0
Uzbekistan	na	na	na	16,000	na	na	0.7	na	na	0
Tajikistan	na	na	na	1,700	na	na	0.3	na	na	0
Turkmenistan	na	na	na	4,000	na	na	1.0	na	na	0
Total Asia	1,512,179	3,078,570	6,027,808	13,951,590				7.11	6.72	8.39

na = not available; 0 = zero or less than half of the unit measured.

Note: 1. Annual Growth Rate = ((Ln(value year begin) - Ln(value year end)) / number of years) x 100.

Source: FAOSTAT Database: Agricultural Production. Available: <http://apps.fao.org>

Table A30: Total Egg Production Per Capita in Selected Asian Economies

	Production (t)				Production Per Capita (t per 1,000)			Average Growth (percent per year)		
	1965	1975	1985	1995	1975	1985	1995	1966-1975	1976-1985	1986-1995
East Asia										
China, People's Rep. of	1,653,809	2,307,742	5,540,540	17,082,970	2.5	4.5	14.0	3.33	8.76	11.26
Japan	1,330,000	1,807,000	2,152,356	2,550,590	16.2	17.2	20.4	3.06	1.75	1.70
Korea, Rep. of	65,273	176,160	316,680	456,284	5.0	7.1	10.2	9.93	5.86	3.65
Mongolia	290	420	1,330	180	0.3	0.5	0.1	3.70	11.53	-20.00
Taipei, China	na	na	na	na	na	na	na	na	na	na
Southeast Asia										
Cambodia	5,000	8,100	9,550	13,250	1.1	1.3	1.3	4.82	1.65	3.27
Indonesia	60,000	111,000	369,300	732,000	0.8	2.2	3.7	6.15	12.02	6.84
Lao PDR	1,283	3,274	5,306	6,252	1.1	1.5	1.3	9.37	4.83	1.64
Malaysia	39,600	105,700	186,300	368,069	8.6	11.9	18.3	9.82	5.67	6.81
Myanmar	17,732	26,641	58,803	54,351	0.9	1.6	1.2	4.07	7.92	-0.79
Philippines	92,611	194,628	245,120	366,000	4.5	4.5	5.4	7.43	2.31	4.01
Singapore	14,150	24,310	21,100	19,260	10.7	7.8	5.8	5.41	-1.42	-0.91
Thailand	314,000	382,000	502,500	705,000	9.2	9.8	12.1	1.96	2.74	3.39
Viet Nam	107,000	101,000	137,000	216,000	2.1	2.3	2.9	-0.58	3.05	4.55
South Asia										
Afghanistan	12,800	13,370	14,200	14,700	0.9	1.0	0.7	0.44	0.60	0.35
Bangladesh	38,600	56,500	68,400	110,000	0.7	0.7	0.9	3.81	1.91	4.75
Bhutan	110	140	240	370	0.1	0.2	0.2	2.41	5.39	4.33
India	207,000	460,000	887,000	1,500,000	0.7	1.2	1.6	7.99	6.57	5.25
Maldives	na	na	na	na	na	na	na	na	na	na
Nepal	9,500	13,400	12,705	19,600	1.0	0.8	0.9	3.44	-0.53	4.34
Pakistan	9,690	42,100	169,519	285,100	0.6	1.7	2.1	14.69	13.93	5.20
Sri Lanka	16,290	16,798	35,038	48,928	1.2	2.2	2.7	0.31	7.35	3.34
Central Asia										
Kazakhstan	na	na	na	103,300	na	na	6.1	na	na	0
Kyrgyz Republic	na	na	na	8,278	na	na	1.9	na	na	0
Uzbekistan	na	na	na	69,400	na	na	3.0	na	na	0
Tajikistan	na	na	na	3,565	na	na	0.6	na	na	0
Turkmenistan	na	na	na	69,400	na	na	17.0	na	na	0
Total Asia	4,322,566	6,446,128	11,906,807	26,525,940				4.00	6.14	8.01

na = not available; 0 = zero or less than half of the unit measured.

Note: 1. Annual Growth Rate = ((Ln(value year begin) - Ln(value year end)) / number of years) x 100.

Source: FAOSTAT Database: Agricultural Production. Available: <http://apps.fao.org>

Table A31: Asia's Top Seven Fish Producers, ranked by 1987–1996 production

	Production (t)			Share in Total Production (%)			Average Annual Growth (%)		Average Production (t)
	1976	1986	1996	1976	1986	1996	1977- 1986	1987- 1996	1987-1996
Total Production (fish, shellfish)									
China, People's Rep. of	4,632,744	8,721,497	31,936,876	16.0	20.9	47.6	6.3	13.0	18,170,016
Japan	9,996,833	11,976,493	6,793,444	34.5	28.7	10.1	1.8	-5.7	9,221,498
India	2,177,096	2,937,470	5,260,420	7.5	7.1	7.8	3.0	5.8	4,121,131
Indonesia	1,478,926	2,456,972	4,401,940	5.1	5.9	6.6	5.1	5.8	3,431,281
Thailand	1,660,386	2,540,835	3,647,900	5.7	6.1	5.4	4.2	3.6	3,145,878
Korea, Rep. of	2,117,755	3,103,486	2,771,772	7.3	7.4	4.1	3.8	-1.1	2,731,268
Philippines	1,393,420	1,916,347	2,133,063	4.8	4.6	3.2	3.2	1.1	2,170,404
Top Seven	23,457,160	33,653,100	56,945,415	81.0	80.7	84.9	3.6	5.3	42,991,475
Other	5,505,886	8,038,708	10,167,385	19.0	19.3	15.1	3.8	2.3	9,592,962
Total Asia	28,963,046	41,691,808	67,112,800	100.0	100.0	100.0	3.6	4.8	52,584,437
Marine Capture (fish, shellfish)									
Japan	na	11,178,058	5,870,585	na	35.6	15.1	na	-6.4	8,317,974
China, People's Rep. of	na	4,165,452	12,459,446	na	13.3	32.0	na	10.9	7,570,535
Thailand	na	2,305,378	2,934,600	na	7.3	7.5	na	2.4	2,630,504
Indonesia	na	1,849,866	3,385,440	na	5.9	8.7	na	6.0	2,589,454
India	na	1,716,944	2,840,919	na	5.5	7.3	na	5.0	2,333,282
Korea, Rep. of	na	2,623,514	2,405,692	na	8.3	6.2	na	-0.9	2,320,133
Korea, Dem. People's Rep. of	na	1,559,239	1,622,000	na	5.0	4.2	na	0.4	1,596,160

Table A31 (cont.)

Table A31: Asia's Top Seven Fish Producers, ranked by 1987-1996 production

	Production (t)			Share in Total Production (%)			Average Annual Growth (%)		Average Production (t)
	1976	1986	1996	1976	1986	1996	1977-1986	1987-1996	1987-1996
Marine Capture (fish, shellfish)									
Top Seven	na	25,398,451	31,518,682	na	80.8	81.0	na	2.2	27,358,042
Other	na	6,026,029	7,380,329	na	19.2	19.0	na	2.0	7,227,132
Total Asia	na	31,424,480	38,899,011	na	100.0	100.0	na	2.1	34,585,174
Aquaculture (fish, shellfish)									
China, People's Rep. of	na	3,962,273	17,714,570	na	54.7	75.5	na	15.0	9,505,535
India	na	686,260	1,768,422	na	9.5	7.5	na	9.5	1,271,712
Japan	na	692,762	829,354	na	9.6	3.5	na	1.8	802,003
Indonesia	na	333,092	672,130	na	4.6	2.9	na	7.0	530,400
Korea, Rep. of	na	428,212	358,003	na	5.9	1.5	na	-1.8	389,475
Philippines	na	302,055	342,678	na	4.2	1.5	na	1.3	369,703
Thailand	na	134,057	509,656	na	1.9	2.2	na	13.4	367,734
Top Seven	na	6,538,711	22,194,813	na	90.3	94.6	na	12.2	13,236,562
Other	na	705,157	1,270,254	na	9.7	5.4	na	5.9	1,024,707
Total Asia	na	7,243,868	23,465,067	na	100.0	100.0	na	11.8	14,261,269

Note: Average growths (1977-1986 and 1987-1996) were calculated from time-series data presented in FAO (1998b, 1998c).

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Table A32: Marine Landings of Miscellaneous Fishes (ISSCAAP 39) in Selected Economies and Fishing Areas, 1986–1996

	Fishing Area	Production (t)		Average Annual Growth (%)	% Share 1996	% of Total	
		1986	1996	(1987–1996)		1986	1996
China, People's Rep. of	Pacific, NW	1,471,029	4,115,836	10.29	38.89	35.31	33.03
Korea, Dem. People's Rep. of	Pacific, NW	1,559,000	1,621,800	0.39	15.33	99.98	99.99
Thailand	Pacific, WC	919,482	901,751	-0.19	8.52		
Thailand	Indian, E	207,913	349,750	5.20	3.30		
Thailand, total		1,127,395	1,251,501	1.04	11.83	48.90	42.65
India	Indian, W	134,066	561,596	14.32	5.31		
India	Indian, E	58,051	166,598	10.54	1.57		
India, total		192,117	728,194	13.32	6.88	11.19	25.63
Japan	Pacific, NW	577,020	287,326	-6.97	2.72		
Japan, other		638,952	622,716	-0.26	5.88		
Japan, total		598,230	292,560	-7.15	2.76	5.35	4.98
Myanmar	Indian, E	528,158	613,530	1.50	5.80	98.69	96.54
Viet Nam	Pacific, WC	448,177	412,000	-0.84	3.89	79.88	60.23
Indonesia	Pacific, WC	215,861	337,000	4.45	3.18		
Indonesia	Indian, E	43,137	56,000	2.61	0.53		
Indonesia, total		258,998	393,000	4.17	3.71	14.00	11.61
Malaysia	Indian, E	163,341	177,897	0.85	1.68		
Malaysia	Pacific, WC	46,516	174,941	13.25	1.65		
Malaysia, total		209,857	352,838	5.20	3.33	27.23	31.32
Korea, Rep. of	Pacific, NW	74,551	148,719	6.91	1.41		
Korea, Rep. of	Pacific, WC	335	11,628	35.47	0.11		
Korea, Rep. of, other		20,518	18,208	-1.19	0.17		
Korea, Rep. of, total		95,404	178,555	6.27	1.69	3.64	7.42
Subtotal		6,488,365	9,959,814	4.29	94.12	23.80	29.32
Other countries		21,210	5,234	-13.99	0.05	0.51	0.11
Total Asia		7,127,317	10,582,530	3.95	100.00	22.68	27.21

Legend: E: Eastern, W: Western, NW: Northwest, WC: Western Central

Notes: Large percentages of miscellaneous fish catches of some countries may be due to inadequate data reporting.

Average growth (1987–1996) was calculated using time-series data in FAO (1998c).

Table A33: Marine Capture Fisheries Production and Growth in Fishing Areas surrounding Asia

FAO Fishing Area	Production (t)		Average 1987-1996	Av. Growth 1987-1996
	1986	1996	(%)	(%/year)
61 - Pacific, Northwest	18,080,841	21,753,037	54.70	1.85
71 - Pacific, Western Central	6,135,980	8,516,979	22.16	3.28
57 - Indian Ocean, Eastern	2,503,465	3,748,591	9.05	4.04
51 - Indian Ocean, Western	2,286,694	3,499,009	8.77	4.25
37 - Mediterranean & Black Sea	548,995	490,710	1.47	-1.12
Major Fishing Areas - Aggregate	29,555,975	38,008,326	96.14	2.52
Other	1,868,505	890,685	3.86	-7.41
Asia, Total Marine Capture	31,424,480	38,899,011	100	2.13
World, Total Marine Capture	78,568,379	87,072,588	—	1.00

Notes: Mediterranean and Black Sea are the local fishing grounds of some West Asian countries. Average growth (1987-1996) was calculated using time-series data in FAO (1998c).

Table A34: Marine Capture Fisheries Production in Asia by Species Group

Species Group*	Production 1986 (t)	Production 1996 (t)	Percentage of Total 1986	Percentage of Total 1996	Av. Growth (1987-1996) (%/year)
Mainly Pelagic (31, 32, 33)	13,926,617	15,003,218	44.32	38.57	0.74
Mainly Demersal (34, 35, 36, 37, 38)	5,413,847	4,934,184	17.23	12.68	-0.93
Misc. Marine Fishes (39)	7,127,317	10,582,530	22.68	27.21	3.95
Total Marine Fishes	26,467,781	30,519,932	84.23	78.46	1.42
Crustaceans, Molluscs, Cephalopods, etc.	4,601,829	7,706,538	14.64	19.81	5.16
Salmon, Trout, Shads, Misc.					
Diadromous (23, 24, 25)	354,870	672,541	1.13	1.73	6.39
Asia, Total Marine Capture	31,424,480	38,899,011	100.00	100.00	2.13

Notes: Species groups are ISSCAAP Species Groups. The designation as mainly pelagic or demersal is indicative only because some species, e.g., sharks, berbels, etc. (No. 38) can be both pelagic and demersal.

Average annual growth rates (1987-1996) were calculated using time-series data in FAO (1998c).

Annex B

SUMMARY OF SUPPORTING RECOMMENDATIONS

The following Table provides a summary of recommendations and suggestions described in the text but not elaborated as strategies in Chapter VI.

Sector	Recommendations
Rice/Annual Crops	<ul style="list-style-type: none"> • Undertake R&D to explore possibilities and means (including biotechnology) to decrease effectively the production costs (per kg) of major crops, i.e. rice, wheat, maize, and soybean, in favorable environments. • Undertake RD&E for integrated crop and soil management for less favorable environments, with special emphasis on the ability of the RD&E system to respond to local and emerging problems and opportunities. • Establish breeding programs to increase yield and lower cost of production for rice, soybean, and pulses in less favorable environments (tolerance to drought, phosphorus deficiency, and tolerance to soil acidity).

Sector	Recommendations
Rice/Annual Crops (cont.)	<ul style="list-style-type: none"> • Identify factors and conditions responsible for yield gaps for rice and the feasibility of closing the gaps. • Intensify efforts to raise the yield potential of rice (including use of biotechnology).
Oil Palm / Fire Haze	<ul style="list-style-type: none"> • Locate land for palm oil plantations outside natural forests (Indonesia). • Recognize land rights of local communities. • Revise promotion incentives and conditions for large-scale plantations. • Revise export policies for forest products. • Strengthen fire protection capacity.
Rice/ Fire Haze	<ul style="list-style-type: none"> • Ban rice production in peat swamps (Indonesia).
Water	<ul style="list-style-type: none"> • Undertake institutional reform for integrated planning and management. • Adopt a basin approach for water resources planning and management. • Adopt participatory planning and management of water resources. • Eliminate open-access conditions through the use of market-based instruments or social and legal means. • Improve irrigation efficiency. • Rehabilitate existing irrigation infrastructure.

Sector	Recommendations
Water (cont.)	<ul style="list-style-type: none"> • Invest in research, monitoring, EIA, and SIA. • Enforce the polluter-pays principle. • Include improvement of capacity for economic analysis in water agencies in water projects. • Improve the capacity for EIA and SIA for water projects. • Improve supply-and-demand management.
Livestock	<ul style="list-style-type: none"> • Provide incentives to relocate farms and cooperatives through the use of economic instruments. • Provide incentives for the use of low-cost biogas technology. • Provide training to farmers and cooperative members. • Abolish subsidies on fossil fuels. • Enforce pollution control regulations. • Include consideration of the sustainability of breeding systems.
Fisheries	<ul style="list-style-type: none"> • Review and regulate the capacity of fishing fleets in relation to sustainable yields of fishery resources and where necessary reduce fleet size. • Adopt policies, application of measures, and development of techniques to reduce bycatch, fish discards, and postharvest losses. • Develop ecologically sound aquaculture as an important contributor to overall food security.

Sector	Recommendations
Fisheries (cont.)	<ul style="list-style-type: none"> • Promote culture fisheries for low-income groups. • Strengthen fisheries research and increase cooperation among research institutions. • Increase efforts to estimate stock sizes as well as the quantity of fish and other organisms caught incidentally and discarded during fishing operations. • Strengthen research programs aiming to stimulate environmentally sound aquaculture and stocking, with special emphasis on: (1) the impact on the environment and biodiversity; (2) the application of biotechnology; and (3) the health of cultured stocks. • Improve sanitation in landing facilities, especially for small-scale fisheries.
Agroforestry	<ul style="list-style-type: none"> • Promote exchange of agroforestry experience. • Revise policies and incentives for agroforestry. • Improve access to government R&D and farmer-generated knowledge. • Improve market information for agroforestry.
Forest Policy	<ul style="list-style-type: none"> • Undertake institutional reform to reflect total value of forests, not only the value of timber. • Provide capacity building in the area of conservation.

Sector	Recommendations
Forest Policy (cont.)	<ul style="list-style-type: none"> • Review pricing of concessions. • Review nonforestry (e.g. export) policies that encourage expansion of agricultural activities in forests.
Protected Areas	<ul style="list-style-type: none"> • Implement participatory management, sharing responsibility with related agencies and local communities. • Develop financing options, such as entrance fees, debt for nature swaps, conservation funds, and nondevelopment rights. • Ensure proper valuation in projects on impact on protected areas.
Agricultural Extension	<ul style="list-style-type: none"> • Explore the possibility and necessary means, including the involvement of NGOs and the private sector, to provide effective linkages between problem (local and emerging) identification and problem solving. • Explore the feasibility of establishing services within the fertilizer industry for soil and plant analysis and recommendations for efficient fertilizer use. Identify needed inputs (technical support), incentives (financial and tax advantages), and mechanisms necessary for quality control and minimization of offsite impact in fertilizer use.

Sector	Recommendations
Agricultural Extension (cont.)	<ul style="list-style-type: none">• Provide avenues to facilitate farmer-to-farmer technology transfer.• Use distance media to reach special groups and women.
Land Policy	<ul style="list-style-type: none">• Provide better land security.• Use tax instruments to release unused land for cultivation.• Recognize community management of rangelands.