

## TABLES Section 2.2

**Table 2.2 a: Agricultural development strategies.**

	50s-70s	80s-90s	2000-
<b>Dominant strategy</b>	Import substitution Industrial development	Structural adjustment, liberalization of markets (Washington consensus)	Market orientation, governance, pro-poor growth (Post Washington consensus)
<b>Agricultural policies</b>	"Urban bias" Taxation of agriculture Subsidized inputs	Getting prices right", privatization Abolishment of marketing boards, export promotion, reduced investments in extension, credit systems	Policies adapted to the diversity of situations, growth in productivity, integration in supply chains, standards and labels
<b>Constraints</b>	Loss of markets, expensive and inefficient government apparatus, budget deficits, debt crisis	Important functions of States are not provided, private sector not ready, depresses commodity markets	Unfavourable market for products, persisting subsidies in the North, technological divide, environmental issues

Source: Markus Giger: Sustainable development in relation to rural contexts and policies, 24/11/2006  
[http://www.cde.ch/university/pdf/SD\\_rural\\_context\\_policies\(1\).pdf](http://www.cde.ch/university/pdf/SD_rural_context_policies(1).pdf).

**Table 2.2.b: Traditional vs. newer issues in trade and non-trade negotiations.**

Traditional issues	New trade issues	New non-trade issues
1. Access issues: <ul style="list-style-type: none"> <li>• Tariffs</li> <li>• TRQ</li> <li>• STEs</li> <li>• Safeguards and special treatment</li> </ul> 2. Export competition <ul style="list-style-type: none"> <li>• Export subsidies</li> <li>• Export credits and assistance</li> <li>• Export STEs</li> </ul> 3. Domestic support <ul style="list-style-type: none"> <li>• AMS (direct and indirect)</li> <li>• Green box measures</li> <li>• Amber distorting measures</li> <li>• Blue box</li> </ul>	<ul style="list-style-type: none"> <li>• Dumping</li> <li>• Food safety and quality</li> <li>• GMPs</li> <li>• Geographic indications and labeling</li> <li>• SPS and related financial and technical assistance</li> <li>• Impact of two-price system and price pooling</li> </ul>	<ul style="list-style-type: none"> <li>• Food security</li> <li>• Biotechnology</li> <li>• Species preservation</li> <li>• Resource conservation</li> <li>• Animal welfare</li> <li>• Safeguarding landscape</li> <li>• Biodiversity</li> <li>• Poverty reduction</li> <li>• Preservation of rural culture</li> <li>• Environmental concerns</li> <li>• Rural development</li> </ul>

Source: Zaibet, Bachta and Chaffai.

**Table 2.2.c: Shallow vs. deep integration measures.**

Trade issues (shallow integration)	Non-trade domestic policies (deep integration)	Relevance of non-trade concerns to the region
<ul style="list-style-type: none"> <li>• Market access</li> <li>• Customs procedures</li> <li>• Rules of origin</li> <li>• Standards and technical barriers</li> <li>• Intellectual property rights</li> <li>• Subsidies and antidumping</li> <li>• SPS</li> <li>• Services trade</li> <li>• Investment measures</li> <li>• Government procurement</li> <li>• Dispute settlement</li> <li>• The role of small economies</li> </ul>	1. Foreign investment  2. Competition policies <ul style="list-style-type: none"> <li>• Limit horizontal restraints: price fixing agreements</li> <li>• The formation of domestic cartels</li> <li>• Prohibition of vertical constraints:</li> <li>• Exclusive agreements between producers and distributors</li> </ul> 3. Labor and environmental standards  4. Harmonization of standards vs. mutual recognition 5. Institutional changes (long run objective)	<ul style="list-style-type: none"> <li>• Raise national investment levels</li> <li>• Increase the rate of technology transfer</li> <li>• Increase economic growth</li> </ul> Viewed as a form of protectionism  Need financial and technical aid

Source: Zaibet, Bachta and Chaffai.

**Table 2.2.d: Relevance to the EU and to the region.**

EU Agenda 2000	Relevance to the region
1. Trade and competitiveness <ul style="list-style-type: none"> <li>Reduction in market support prices for cereals, milk and beef</li> <li>Direct aid payments to offset lower prices</li> </ul>	Higher import prices New access concessions are sought
2. Rural development <ul style="list-style-type: none"> <li>Multifunctional nature of agriculture</li> <li>Regeneration of rural areas and promotion of diversification</li> </ul>	Included in the Barcelona declaration
3. Protecting and enhancing the environment <ul style="list-style-type: none"> <li>Support agricultural methods which protect the environment</li> <li>Direct payment conditional on compliance with environment targets</li> </ul>	Included in the Barcelona declaration
4. Food safety and consumers' protection <ul style="list-style-type: none"> <li>Quality assurance for hygiene, the environment and animal welfare</li> <li>Improving traceability</li> <li>Labeling</li> <li>Organic farming</li> </ul>	Impact on agricultural exports Needs technical and financial aid
5. The enlargement of the Union	Potential gains or losses?

**Table 2.2.5.a: The international organizations has been working in CWANA region.**

Short Name	Name
AVRDC	World Vegetable Center - formerly the Asian Vegetable Research and Development Center
CGIAR	Consultative Group on International Agricultural Research
CIAT	Centro Internacional de Agricultura Tropical
CIMMYT	International Center for the Improvement of Maize and Wheat
CIP	International Potato Center
ESCWA	UN Economic and Social Commission for West Asia
FAO	Food and Agriculture Organization of the United Nations
FAO/IAEA	International Atomic Energy Agency) Joint Division
FIS/ASSINSEL	International Seed Trade Federation (International Association of Plant Breeders)
GFAR	Global Forum on Agricultural Research
ICARDA	International Center for Agricultural Research in the Dry Areas (Syria)
ICBA	International Center for Biosaline Agriculture
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics, India
IFAP	International Federation of Agricultural Producers
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute)
IPGRI	<a href="#">International Plant Genetic Resources Institute</a> (Biodiversity International)
IRRI	International Rice Research Institute
ISNAR	International Service for National Agricultural Research
IWMI	International Water Management Institute
UNDP	United Nations Development Program
UNESCO-MAB	United Nations Education, Scientific and Cultural Organization- Man and the Biosphere Program
UN University	United Nations University

**Table 2.2.5.b: Regional Networks/Organizations in CWANA region.**

Short Name	Name
	International Germplasm Testing Network
	WANA Seed Network
	The Network on Drought Management for the Near East, Mediterranean and Central Asia
<b>AARINENA</b>	Association of Agricultural Research Institutions in the Near East and North Africa
<b>ACSAD</b>	Arab Center for the Study of Arid Zones and Dry Lands, Syria
<b>AFMANENA</b>	The Agricultural Food Marketing Association for the Near East And North Africa Region
<b>AFSTA</b>	African Seed Trade Association
<b>AINWANA</b>	Agricultural Information Network for WANA
<b>AOAD</b>	The Arab Organization for Agricultural Development
<b>AOAD</b>	Arab Organization for Agricultural Development
<b>ASN</b>	African Seed Network
<b>ASPIP</b>	Arab Society for the Protection of Intellectual Property
<b>ASTF</b>	<a href="#">The Arab Science And Technology Foundation</a>
<b>BUCAP</b>	Biodiversity Use of Conservation Asia Program
<b>CAC</b>	Sustainable Agricultural Development in Central Asia and the Caucasus
<b>CIHEAM</b>	International Center for Advanced Mediterranean Agronomic Studies
<b>FARA</b>	Forum for Agricultural Research in Africa
<b>FFS</b>	Farmer field schools
<b>NARS's/ ICARDA</b>	On Farm Water Husbandry Network for CWANA Region
<b>NEMEDCA</b>	Drought Network
<b>SEWAN</b>	Southern Europe and WANA) Durum Wheat Research Network ,Turkey
<b>SPAAR</b>	Special Program for African Agricultural Research
<b>WANANET</b>	West Asia and North Africa Network on Plant Genetic Resources

**Table 2.2.5.c: Farmer Unions in Turkey.**

	Name	Short Name
1	Cukurova Cotton Growers Union	ÇUKOBIRLIK
2	Antalya Cotton Growers Union	ANTBIRLIK
3	Sugar Beet Growers Union	PANKOBIRLIK
4	Turkish Agricultural Credit Cooperatives Union	TTKKMB
5	Agricultural Credit Cooperatives Union of Fig, Grape, Cotton, and Olive oil	TARIS
6	Trakya Oil Crops Growers Union	TRAKYABIRLIK
7	Hazelnut and Pistachio Growers Union	FISKOBIRLIK
8	Marmara Olive Growers Union	MARMARA BIRLIK
9	Isparta Rose Growers Union	GUL BIRLIK
10	Apricot Growers Cooperatives	KAYISI BIRLIK

**Table 2.2.5.d: Agricultural Producers Organizations by Main Types in 2006.**

Producer Organizations	Number	Number of Members	Number of Sub Associations	Number of Central Associations
Agricultural Development Coop.	6.796	743.547	78	4
Irrigation Coop.	2.349	276.246	11	1
Fisheries Coop.	481	24.681	12	1
Sugar Beet Producers Coop.	31	1.587.324	1	1
Agricultural Credit Coop.	1.948	1.500.000	16	1
Agricultural Sales Coop.	350	671.928	17	-
Producers Unions	133	8.566		

Source: MARA Web Page ([www.tarim.gov.tr](http://www.tarim.gov.tr))

**Table 2.2.5.e: Agricultural Associations in Turkey.**

Short Name	Name
TUBID	Turkish Plant Breeders Association
TURKTED	Turkish Seed Industry Association
	Turkish Agricultural Engineers Chamber
	Turkish Veterinarians Chamber
	Animal Growers Associations
	The Turkish Cooperative Association
TTKMB	Turkish Agricultural Credit Cooperatives Union
TMO	Turkish Agricultural Products Office
SETBIR	Association of Dairy, Beef and Food Manufacturers and Producers
TISIT	The Association of the Pesticide Importers and Representars
	Turkish Cut Flowers Exporting Association
ETO	Ecological Agricultural Organization Association
BESD-BIR	White Meat Industrialists Association
	Flour Millers Association
	Turkish Feed Millers Association
	Union of Pasta Producers
TOS	Turkish Agricultural and Forest Officials Union
TARIM-IS	Turkish Agricultural and Forest Workers Union

## SECTION 2.3

**Table 2.3.a: Composition of Agricultural Research Expenditures, in selected CWANA countries, 2002 (%).**

Country	Public Agencies		Private Enterprises	
	Research Institutions	Higher Education	Total	
Jordan	45.8 (58.5)	47.7 (38.1)	93.6 (96.6)	6.4 (3.4) Mainly in high-value crops & fruit trees
Syria	83.4 (83.6)	15.8 (15.9)	99.3 (99.6)	0.7 (0.4)
Ethiopia	88.9 (89.0)	10.8 (10.8)	99.8 (99.7)	0.2 (0.3)
Eritrea <sup>a</sup>	92.7 (71.1)	7.3 (28.9)	100 (100)	00 (00)
Sudan	65.3 (70.2)	26.4 (28.4)	91.7 (98.6)	8.1 (1.4) Mainly in sugarcane
Tunisia <sup>a</sup>	73.6 (73.1)	26.4 (26.9)	100 (100)	00 (00)
Morocco <sup>a</sup>	63.6 (63.6)	36.4 (36.4)	100 (100)	00 (00)
Mauritania <sup>a</sup>	91.9 (91.9)	8.1 (8.1)	100 (100)	00 (00)

Sources:

AST1 (Agricultural Science and Technology Indicators). IFPRI, AST1 Country Brief No. 27. February 2005.

----- IFPRI, AST1 Country Brief No. 29. January 2006  
 ----- IFPRI, AST1 Country Brief No. 2. February 2003  
 ----- IFPRI, AST1 Country Brief No. 9. October 2003  
 ----- IFPRI, AST1 Country Brief No. 11. November 2003  
 ----- IFPRI, AST1 Country Brief No. 15. March 2004  
 ----- IFPRI, AST1 Country Brief No. 35. April 2006  
 ----- IFPRI, AST1 Country Brief No. 36. April 2006

**Table 2.3.b: A Short History of Government-Based Agricultural Research for Selected CWANA Countries.**

Country	History of Agricultural R&D
Jordan	Formal agricultural R&D began in 1951 with the creation of the first agricultural research station in the Jordan Valley.
Syria	Formal agricultural R&D began in the early 1940s within the establishment of experiment farms at Deir Elhajar and Kharabo, close to Damascus.
Ethiopia	Limited research was initiated when the Ambo and Jima Junior College of Agriculture were established in 1947.
Eritrea	Four research farms were established by the Italian colonial government in 1910 to conduct research on coffee, along with a few other crops
Sudan	Agricultural Research began under British rule in attempt to launch cotton production for the international market. Experimental research on irrigated cotton began in the northern part of the country in 1902
Tunisia	Agricultural research in Tunisia began over a century ago with the creation of the Livestock Laboratory in 1897, the Colonial School of Agriculture in 1898, and the Botanic Service of Tunisia in 1913.
Morocco	The first agricultural research activities in Morocco were carried out by the Agricultural Experimentation service, established in 1919 by the French Colonial government.
Mauritania	Agricultural research activities commenced in 1949 with the exploratory research by the French colonial government focusing on date palms and the production systems of the Senegal River and the Country's Oasis.

Sources:

AST1 (Agricultural Science and Technology Indicators). IFPRI, AST1 Country Brief No. 27. February 2005.

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 ----- IFPRI, AST1 Country Brief No. 11. November 2003  
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 ----- IFPRI, AST1 Country Brief No. 35. April 2006  
 ----- IFPRI, AST1 Country Brief No. 36. April 2006

<sup>a</sup> Private-sector involvement in agricultural research is non-existent

**Note:** Numbers in parentheses refer to the percentages of researchers

**Table 2.3.c: Educational Attainment of Researchers and Share of Female Researchers for Selected CWANA Countries.**

Country	Year of data	Education Attainment (%)			Share of Female (%)		
		BSc	MSc	PhD	BSc	MSc	PhD
Jordan	2003	39	28	33	19	17	5
Syria	2003	75	5	20	26	36	5
Ethiopia	2000	49	32	9	14	5	1
Eritrea	2000	59	36	5	2	1	0.2
Sudan	2000	21	46	33	6	26	17
Tunisia	2002	9	21	70	3	6	20
Morocco	2002	11	55	34	28	18	14
Mauritania	2000	36	47	17	3	3	1

Sources:

AST1 (Agricultural Science and Technology Indicators). IFPRI, AST1 Country Brief No. 27. February 2005.

----- IFPRI, AST1 Country Brief No. 29. January 2006  
 ----- IFPRI, AST1 Country Brief No. 2. February 2003  
 ----- IFPRI, AST1 Country Brief No. 9. October 2003  
 ----- IFPRI, AST1 Country Brief No. 11. November 2003  
 ----- IFPRI, AST1 Country Brief No. 15. March 2004  
 ----- IFPRI, AST1 Country Brief No. 35. April 2006  
 ----- IFPRI, AST1 Country Brief No. 36. April 2006

**Table 2.3.d: Research Intensity in Public Agricultural R&D in Selected CWANA Countries.**

Country	Year of Data	Research Intensity (%)
Jordan	2003	2.83
Syria	2003	0.53
Ethiopia	2000	0.43
Eritrea	2000	1.70
Sudan	2000	0.17
Tunisia	2002	1.04
Morocco	2002	0.95
Mauritania	2001	0.92
CWANA Region	2000	0.66
Developing world	2000	0.53
Developed world	2000	2.36
Global	2000	0.80

Sources:

ASTI (Agricultural Science and Technology Indicators). IFPRI, AST1 Country Brief No. 27. February 2005.

----- IFPRI, AST1 Country Brief No. 29. January 2006  
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 ----- IFPRI, AST1 Country Brief No. 36. April 2006

## 2.4. Economic and Market evolution

**Table 2.4.a : Poverty headcount ratio at national poverty line (% of population).**

Cwana sub-region	Country	Year of survey	Population		
			National	Rural	Urban
North Africa	Algeria	1995	23	30	15
		1998	12	17	7
	Mauritania	1996	50	66	30
		2000	46	61	25
	Morocco	1991	13	18	8
		1999	19	27	12
Tunisia	1990	7	13	4	
	1995	8	14	4	
Central Asia and Caucasus	Armenia	1999	55	51	58
		2001	51	49	52
	Azerbaijan	1995	68		
		2001	49	42	55
	Kazakhstan	1996	35	39	30
	Kyrgyz Republic	2000	52	56	44
2001		48	51	41	
South and West Asia	Uzbekistan	2000	28	31	23
	Jordan	1991	15		
		1997	12		
	Pakistan	1993	29	33	17
		1999	33	36	24
	Turkey	1994	28		
2002		27	35	22	
Nile Valley and Red Sea	Egypt	1996	23	23	23
		2000	17		
	Yemen	1996	42	45	31

Source : World Development Indicators 2005, CD-ROM, The World Bank

**Table 2.4.b: Evolution of the milk production per capita in Cwana sub-regions between 1961 and 2005 (kg/year/capita).**

Cwana sub-regions	South and West Asia	Central Asia and Caucasus	Nile Valley and Red Sea	Northern Africa	Arabian Peninsula	Cwana total
1961-1965	115		47	37	25	86
1966-1970	112		47	40	24	85
1971-1975	106		48	39	23	81
1976-1980	107		52	44	27	83
1981-1985	103		56	43	24	81
1986-1990	106		56	43	27	83
1991-1995	112	190	62	43	30	99
1996-2000	120	162	67	49	35	102
2001-2005	127	189	74	56	42	110

Source : Author's work based on FAO statistics, <http://www.fao.org>

**Table 2.4.c: Evolution of the meat production per capita in Cwana sub-regions between 1961 and 2005 (kg/year/capita).**

Cwana sub-regions	South and West Asia	Nile Valley and Red Sea	Central Asia and Caucasus	Northern Africa	Arabian Peninsula	Cwana total
1961-1965	10	12		11	12	10
1966-1970	10	12		12	11	11
1971-1975	10	12		13	13	11
1976-1980	11	12		14	14	12
1976-1980	12	13		15	21	13
1986-1990	14	13	34	27	27	
1991-1995	15	14	27	19	25	18
1996-2000	15	16	27	20	26	17
2001-2005	16	17	27	21	26	18

Source : Author's work based on FAO statistics, <http://www.fao.org>

**Table 2.4.d : Evolution of the grains production per capita in Cwana sub-regions between 1961 and 2005 (kg/year/capita).**

Cwana sub-regions	South and West Asia	Nile Valley and Red Sea	Central Asia and Caucasus	North Africa	Arabian peninsula	Cwana	World
<b>1961-1965</b>	256	175		195	67	224	297
<b>1966-1970</b>	265	175		191	60	228	323
<b>1971-1975</b>	266	175		191	25	228	337
<b>1976-1980</b>	289	163		160	25	233	354
<b>1981-1985</b>	271	147		138	64	216	367
<b>1986-1990</b>	264	153		164	159	221	360
<b>1991-1995</b>	265	188	401	139	173	246	349
<b>1996-2000</b>	249	196	297	132	77	222	352
<b>2000-2005</b>	259	99	401	147	84	220	345

Source : Author's work based on FAO statistics, [http :www.fao.org](http://www.fao.org)

**Table 2.4.e: Evolution of the cereals trade balance of Cwana region and other main regions of the world between 1961 and 2004 (1000 tons)**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004
Central Asia and Caucasus							-3,456	1,173	2,357
South and West Asia	-1,877	-1,781	-4,221	-4,853	-9,072	-13,095	-9,080	-14,993	-8,303
Arabian peninsula	-536	-590	-826	-2,383	-6,215	-3,428	-5,171	-8,875	-8,502
Nile Valley and Red Sea	-1,778	-1,956	-2,982	-5,730	-9,484	-10,214	-10,182	-12,225	-11,765
North Africa	-878	-1,700	-3,138	-5,764	-8,468	-10,580	-12,383	-14,310	-16,677
<b>Cwana</b>	<b>-5,136</b>	<b>-6,135</b>	<b>-11,307</b>	<b>-18,789</b>	<b>-33,305</b>	<b>-37,560</b>	<b>-40,272</b>	<b>-49,230</b>	<b>-42,890</b>
N Amer Dvdp	52,500	56,731	82,219	117,290	129,712	116,448	116,031	106,382	97,821
W Europe	-29,446	-27,034	-26,121	-24,889	-1,495	18,462	23,315	16,812	3,880
EU(15)*						20,996	23,279	15,629	4,767
Oceania	6,705	7,060	10,465	13,546	15,889	16,881	12,744	20,905	17,782
E Europe	-5,527	-2,284	-4,703	-9,505	-3,134	-2,421	213	993	1,793
Latin America & Caribbean	2,591	4,602	550	-1,803	-1,280	-10,259	-17,120	-18,442	-17,000
Africa	261	-351	-270	-2,549	-7,122	-4,910	-11,138	-11,717	-17,838
Asia	-21,611	-34,460	-41,486	-52,344	-56,363	-60,637	-61,487	-61,328	-51,570
<b>World</b>	<b>2,449</b>	<b>982</b>	<b>2,222</b>	<b>815</b>	<b>1,548</b>	<b>4,240</b>	<b>3,142</b>	<b>2,810</b>	<b>4,121</b>

\* : EU 15 exports do not include the intra EU trade

Notes : North African countries, Djibouti, Egypt, Somalia and Sudan are excluded from the Africa totals. South and West Asia, Central Asia and Caucasus, Arabian peninsula countries and Yemen are excluded from Asia totals.

Source : Author's work based on FAO statistics, <http://www.fao.org>



**Table 2.4.f: Evolution of wheat flour exports in Cwana region and other main regions of the world between 1961 and 2004(5 year averages) (million tons).**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004	Annual average growth rate (%)
Central Asia and Caucasus							47.2	257.5	269.6	19.0%
South and West Asia	4.5	7.6	11.3	73.1	277.5	220.4	552.8	499.2	894.3	13.1%
Arabian peninsula	5.5	2.6	5.7	18.3	83.2	19.6	9.9	253.3	254.7	9.4%
North Africa	24.1	2.5	1.5	1.3	0.8	7.0	41.0	130.1	152.9	4.4%
Nile Valley & Red Sea	20.4	12.8	0.0	0.0	1.0	0.2	0.1	4.9	17.0	-4.1%
<b>Cwana</b>	<b>54.5</b>	<b>25.5</b>	<b>18.5</b>	<b>92.7</b>	<b>362.5</b>	<b>247.1</b>	<b>650.9</b>	<b>1,145.0</b>	<b>1,588.6</b>	<b>8.2%</b>
Latin America & Caribbean	24.6	44.9	115.4	137.1	88.6	112.4	270.5	499.1	315.5	6.8%
Eastern and Central Europe	10.5	48.6	40.1	33.5	25.6	55.9	346.7	247.1	159.8	6.5%
Asia	164.6	162.7	105.2	222.8	281.6	446.0	824.4	1,089.4	1,221.9	4.8%
Africa	35.5	29.1	29.3	18.9	25.2	85.7	166.8	181.4	202.8	4.1%
Northern America	2,594.7	1,793.0	1,235.5	1,431.3	1,458.1	1,452.3	1,229.2	831.9	653.8	3.2%
Western Europe	1,168.2	1,546.9	2,070.5	3,311.0	4,079.1	3,896.6	5,340.5	5,015.5	3,702.0	2.7%
EU(15)						3,412.3	4,507.1	3,767.1	1,756.5	-4.3%
Oceania	571.2	340.3	205.3	133.8	66.1	73.3	67.1	188.7	252.1	-1.9%
<b>World</b>	<b>4,895.3</b>	<b>4,511.9</b>	<b>4,440.8</b>	<b>6,064.0</b>	<b>6,683.9</b>	<b>6,589.0</b>	<b>9,134.7</b>	<b>9,498.2</b>	<b>8,307.6</b>	<b>1.2%</b>

\* : EU 15 exports do not include the intra EU trade

Notes : North African countries. Djibouti. Egypt. Somalia and Sudan are excluded from the Africa totals. South and West Asia. Central Asia and Caucasus. Arabian peninsula countries and Yemen are excluded from Asia totals.

Source : Author's work based on FAO statistics. <http://www.fao.org>

**Table 2.4.g : Evolution of the trade balance of oilcrops in Cwana region between 1961 and 2004 (5 year averages in 1000 tons).**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004
Nile Valley and Red Sea	342.3	253.4	267.4	189.4	99.1	70.0	80.0	133.5	96.4
Central Asia and Caucasus							34.3	35.0	48.6
Arabian peninsula	-0.7	-0.9	-3.3	-12.6	-24.3	-23.2	-34.2	-45.5	-58.7
North Africa	-4.1	-6.0	-21.8	-41.5	-25.9	-16.8	-72.6	-107.3	-161.3
South and West Asia	172.3	119.6	62.2	5.1	-38.4	-24.9	-53.7	-346.8	-696.3
<b>Cwana</b>	<b>509.8</b>	<b>366.0</b>	<b>304.5</b>	<b>140.5</b>	<b>10.6</b>	<b>5.0</b>	<b>-46.3</b>	<b>-331.2</b>	<b>-771.2</b>
North America	5,730.1	9,542.0	14,526.7	22,081.4	24,902.4	21,390.1	23,882.4	30,119.0	34,072.9
Western Europe	-670.8	-837.2	-2,083.2	-4,306.9	-3,667.0	-2,177.9	-2346.3	-871.3	-1,578.8
EU(15*						-3,816.6	-4,340.6	-4,172.1	-4,691.2
Latin America and Caribbean	283.8	379.4	1,973.0	3,672.1	4,039.2	6,117.5	7,884.1	12,202.8	25,913.7
Oceania	203.9	199.5	226.7	259.8	215.3	320.4	346.4	1 468.6	1 567.0
East & Central Europe	98.6	286.9	95.2	-61.0	-51.1	444.9	618.4	951.9	1 414.6
Africa	2,116.8	1846.2	1105.3	609.6	321.0	335.8	303.6	601.5	543.6
Asia	1,595.2	1,303.6	143.1	-1,344.8	-1,705.0	-722.2	-2,058.9	-4,707.8	-7,733.9
<b>World</b>	<b>9,960.1</b>	<b>13,367.5</b>	<b>16,327.3</b>	<b>20,695.4</b>	<b>23,653.8</b>	<b>25,437.8</b>	<b>28,975.3</b>	<b>41,813.8</b>	<b>54,444.4</b>

\* : EU 15 exports do not include the intra EU trade

Notes : North African countries. Djibouti. Egypt. Somalia and Sudan are excluded from the Africa totals. South and West Asia. Central Asia and Caucasus. Arabian peninsula countries and Yemen are excluded from Asia totals.

Source : Author's work based on FAO statistics. <http://www.fao.org>

**Table 2.4.h: Evolution of the trade balance of oilcrops in Cwana region between 1961 and 2004 (5 year averages in 1000 tons).**

<b>Country</b>	<b>1961-1965</b>	<b>1966-1970</b>	<b>1971-1975</b>	<b>1976-1980</b>	<b>1981-1985</b>	<b>1986-1990</b>	<b>1991-1995</b>	<b>1996-2000</b>	<b>2001-2004</b>
Nile Valley and Red Sea	342.3	253.4	267.4	189.4	99.1	70.0	80.0	133.5	96.4
Central Asia and Caucasus							34.3	35.0	48.6
Arabian peninsula	-0.7	-0.9	-3.3	-12.6	-24.3	-23.2	-34.2	-45.5	-58.7
North Africa	-4.1	-6.0	-21.8	-41.5	-25.9	-16.8	-72.6	-107.3	-161.3
South and West Asia	172.3	119.6	62.2	5.1	-38.4	-24.9	-53.7	-346.8	-696.3
<b>Cwana</b>	<b>509.8</b>	<b>366.0</b>	<b>304.5</b>	<b>140.5</b>	<b>10.6</b>	<b>5.0</b>	<b>-46.3</b>	<b>-331.2</b>	<b>-771.2</b>
North America	5,730.1	9,542.0	14,526.7	22,081.4	24,902.4	21,390.1	23,882.4	30,119.0	34,072.9
Western Europe	-670.8	-837.2	-2,083.2	-4,306.9	-3,667.0	-2,177.9	-2346.3	-871.3	-1,578.8
EU(15*						-3,816.6	-4,340.6	-4,172.1	-4,691.2
Latin America and Caribbean	283.8	379.4	1,973.0	3,672.1	4,039.2	6,117.5	7,884.1	12,202.8	25,913.7
Oceania	203.9	199.5	226.7	259.8	215.3	320.4	346.4	1 468.6	1 567.0
East & Central Europe	98.6	286.9	95.2	-61.0	-51.1	444.9	618.4	951.9	1 414.6
Africa	2,116.8	1846.2	1105.3	609.6	321.0	335.8	303.6	601.5	543.6
Asia	1,595.2	1,303.6	143.1	-1,344.8	-1,705.0	-722.2	-2,058.9	-4,707.8	-7,733.9
<b>World</b>	<b>9,960.1</b>	<b>13,367.5</b>	<b>16,327.3</b>	<b>20,695.4</b>	<b>23,653.8</b>	<b>25,437.8</b>	<b>28,975.3</b>	<b>41,813.8</b>	<b>54,444.4</b>

\* : EU 15 exports do not include the intra EU trade

Notes : North African countries. Djibouti. Egypt. Somalia and Sudan are excluded from the Africa totals. South and West Asia. Central Asia and Caucasus. Arabian peninsula countries and Yemen are excluded from Asia totals.

Source : Author's work based on FAO statistics. <http://www.fao.org>

**Table 2.4.i: Evolution of the international trade of processed food in Cwana region and other main regions of the world between 1961 and 2004 (5 year averages in 1000 tons)**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004	Annual average increase rate (%)
<b>Exports</b>										
South and West Asia	99	150	219	244	481	874	1,622	2,523	3,085	8.3
Arabian Peninsula	2	8	17	83	307	244	390	554	946	15.4
North Africa	1,508	1,303	1,086	763	575	276	372	448	528	-2.4
Central Asia and Caucasus							227	171	262	1.4
Nile Valley and Red Sea	1,117	384	74	72	42	165	222	123	156	-4.5
<b>Cwana</b>	<b>2,727</b>	<b>1,845</b>	<b>1,395</b>	<b>1,163</b>	<b>1,406</b>	<b>1,558</b>	<b>2,833</b>	<b>3,819</b>	<b>4,977</b>	<b>1.4</b>
Africa	1,013	2,946	2,475	2,169	1,781	1,801	2,298	2,826	3,242	2.7
Asia	2,055	2,879	4,423	7,083	9,623	15,496	21,123	28,316	42,005	7.3
Latin America & Caribbean	909	1,153	1,595	3,128	4,668	6,270	8,755	13,685	19,161	7.3
Oceania	281	396	483	383	495	708	1,001	1,502	2,322	5.0
North America	1,952	2,190	2,968	4,231	4,990	5,478	9,915	13,509	15,970	5.0
East & Central Europe	1,265	2,027	2,581	5,193	6,049	5,427	4,812	6,114	7,526	4.2
Western Europe	8,627	44,122	21,309	25,175	32,552	42,549	52,596	68,668	86,147	5.5
EU(15) ex.int						11,663	15,030	17,299	18,393	3.1
<b>World</b>	<b>19,095</b>	<b>67,064</b>	<b>36,669</b>	<b>48,067</b>	<b>61,563</b>	<b>79,267</b>	<b>104,063</b>	<b>139,994</b>	<b>183,934</b>	<b>5.4</b>
<b>Imports</b>										
South and West Asia	336	455	729	1,312	2,254	3,161	4,392	5,020	4,814	6.4
North Africa	207	281	466	686	891	1,086	1,375	1,604	2,014	5.4
Central Asia and Caucasus							498	688	878	5.8
Arabian Peninsula	203	306	414	1,342	1,752	1,635	1,787	2,229	3,039	6.5
Nile Valley and Red Sea	174	232	308	546	800	1,004	1,190	1,257	1,192	4.6
<b>Cwana</b>	<b>920</b>	<b>1,274</b>	<b>1,917</b>	<b>3,885</b>	<b>5,694</b>	<b>6,885</b>	<b>9,243</b>	<b>10,798</b>	<b>11,937</b>	<b>6.1</b>
Africa	692	794	824	1,213	1,598	1,833	2,658	3,622	5,424	4.9
Asia	1,051	1,507	2,330	4,511	6,661	10,756	15,477	22,944	31,637	8.2
Latin America & Caribbean	723	968	1,267	1,887	2,175	2,628	5,260	7,481	11,088	6.6
Oceania	178	245	338	438	557	755	976	1,314	2,057	5.9
North America	1,716	2,339	3,416	4,741	6,912	9,363	10,723	15,342	20,222	5.9
East and Central Europe	488	714	983	1,122	1,202	1,353	2,628	4,119	5,808	5.9
Western Europe	9,920	13,907	22,871	26,443	31,351	39,977	51,373	65,392	84,901	5.1
EU(15)*						8,324	12,549	15,447	17,168	4.9
<b>World</b>	<b>16,238</b>	<b>22,832</b>	<b>35,604</b>	<b>46,216</b>	<b>59,126</b>	<b>75,925</b>	<b>102,859</b>	<b>136,770</b>	<b>179,833</b>	<b>5.8</b>

\* : EU 15 exports do not include the intra EU trade

Notes : North African countries, Djibouti, Egypt, Somalia and Sudan are excluded from the Africa totals. South and West Asia, Central Asia and Caucasus, Arabian peninsula countries and Yemen are excluded from Asia totals

Notes : Processed food include : apple juice concentrated, apple juice single string, beverages, bran of cereals, bran of pulses, bread, breakfast cereals, bulgur, wholemeal, cereal prep nes, chocolate products nes, citrus juice concentrated, citrus juice single-string, cocoa butter, cocoa paste, cocoa powder and cake, coffee extracts, coffee roasted, coffee subst. cont coffee, dried mushrooms, dry apricots, eggs liquid hen, eggs liquid, dried, extract tea, mate, prep., figs, dried, fixed vegetab oils, flour of cereals, flour of fruit, flour of mustard, flour of potatoes, flour of pulses, flour of roots and tuber, food prepared nes, fruit dried nes, fruit juice nes, fruit prepared nes, fruit tropical dried nes, glucose and dextrose, grape juice, grape fruit juice concentr, grape fruit juice sing-str, honey, infant food, isoglucose, juice of vegetables nes, lemon juice concentrated, lemon juice single-string, liquid margarine, macaroni, mango juice, mango pulp, maple sugar and syrups, margarine + shortening

Source : FAOSTAT | © FAO Statistics Division 2006

**Table 2.4.j: Evolution of the fresh fruits and vegetables exports of Cwana region n between 1961 and 2004 (5 year averages in 1000 tons)**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004	Annual average growth rate (%)
South and West Asia	872	1 173	1 491	1 843	2 340	2 334	2 594	3 195	3 856	3,6%
North Africa	963	947	906	871	710	719	767	900	805	0,4%
Nile Valley and Red Sea	290	283	405	288	272	326	269	345	667	2,0%
Central Asia & Caucasus							304	487	603	7,1%
Arabian peninsula	10	28	50	84	229	282	383	371	500	9,5%
<b>Cwana</b>	<b>2 135</b>	<b>2 431</b>	<b>2 852</b>	<b>3 087</b>	<b>3 550</b>	<b>3 661</b>	<b>4 317</b>	<b>5 298</b>	<b>6 431</b>	<b>2,6%</b>
Asia	1 586	2 597	3 537	3 927	4 059	4 119	4 808	6 314	9 489	4,3%
Latin America & Caraibes	4 371	5 776	6 760	7 744	8 637	11 461	15 029	18 900	21 374	3,8%
North America	1 377	1 628	2 121	2 737	2 780	3 349	5 298	5 876	6 432	3,7%
Oceania	334	352	327	305	433	716	1 028	1 335	1 375	3,4%
Western Europe	5 559	6 697	8 193	9 324	10 494	12 851	17 371	21 450	23 193	3,4%
EU(15)*						1 211	2 307	3 515	3 065	6,4%
Africa	897	941	1 052	1 201	1 220	1 349	1 717	2 338	3 080	2,9%
Eastern & Central Europe	1 224	1 333	1 487	1 380	1 551	1 435	1 183	1 192	1 561	0,6%
<b>World</b>	<b>17 516</b>	<b>21 808</b>	<b>26 433</b>	<b>29 768</b>	<b>32 773</b>	<b>39 023</b>	<b>51 068</b>	<b>62 908</b>	<b>73 217</b>	<b>3,4%</b>

\*: EU 15 exports do not include the intra EU trade

Notes : North African countries, Djibouti, Egypt, Somalia and Sudan are excluded from the Africa totals. South and West Asia, Central Asia and Caucasus, Arabian peninsula countries and Yemen are excluded from Asia totals

Notes : Fresh fruits and vegetables include : Apples, Apricots, Artichokes, Asparagus, Avocados, Bambara Beans, Bananas and plantains, Beans, Green, Berries nes, Blueberries, Broad Beans, Green, Cabbages, Cantaloupes&oth Melons, Carrots, Cauliflower, Cherries, Chillies&Peppers, Green, Citrus Fruit nes, Cranberries, Cucumbers and Gherkins, Currants, Dates, Eggplants, Fruit Fresh nes, Fruit Tropical Fresh nes, Garlic, Gooseberries, Grapefruit and Pomelos, Grapes, Kiwi Fruit, Leeks and Oth.Alliac.Veg, Lemons and Limes, Lettuce, Mangoes, Mushrooms, Okra, Onions, Dry, Onions+Shallots, Green, Oranges, Oth Citrus Frt, Papayas, Peaches and Nectarines, Pears, Peas, Green, Pepper, White/Long/Black, Pineapples, Plantains, Plums, Pumpkins, Squash, Gourds, Quinces, Raisins, Raspberries, Sour Cherries, Spinach, Stone Fruit nes, Fresh, Strawberries, String Beans, Tang.Mand.Clement.Satsma, Tomatoes, Vegetables Fresh nes, Vetches, Watermelons

Source : Author's work based on FAO statistics. <http://www.fao.org>

**Table 2.4.k :Total meat imports of Cwana region and other main regions of the world between 1961 and 2004 (5 year averages in 1000 M tons).**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004	Annual average growth rate (%)
Arabian Peninsula	8	23	60	304	505	488	578	714	942	11.7%
Nile Valley and Red Sea	13	13	16	104	252	203	162	197	219	6.8%
South and West Asia	8	19	61	227	551	353	244	159	135	6.8%
North Africa	23	7	9	34	72	44	49	38	76	2.8%
Central Asia & Caucasus					1	1	185	256	130	-3.4%
<b>Cwana</b>	<b>51</b>	<b>62</b>	<b>147</b>	<b>670</b>	<b>1,381</b>	<b>1,089</b>	<b>1,218</b>	<b>1,364</b>	<b>1,501</b>	<b>8.2%</b>
Asia	180	367	595	891	1,114	1,763	3,192	5,268	5,976	8.4%
Latin America & Caribbean	124	152	226	335	355	682	927	1,487	2,025	6.7%
Africa	52	81	95	150	197	313	425	452	636	6.0%
Oceania	26	37	56	75	92	123	163	174	215	5.0%
Eastern & Central Europe	181	253	199	195	253	287	418	495	817	3.6%
North America	726	992	1,174	1,315	1,305	1,640	1,662	1,936	2,495	2.9%
Western Europe	2,706	3,244	3,819	4,274	4,513	5,453	6,795	7,796	9,272	2.9%
EU(15)*						957	1,033	1,146	1,505	3.1%
<b>World</b>	<b>4,182</b>	<b>5,301</b>	<b>6,636</b>	<b>8,458</b>	<b>10,196</b>	<b>12,318</b>	<b>16,231</b>	<b>21,114</b>	<b>25,723</b>	<b>4.3%</b>

\*: EU 15 exports do not include the intra EU trade

Notes : North African countries, Djibouti, Egypt, Somalia and Sudan are excluded from the Africa totals. South and West Asia, Central Asia and Caucasus, Arabian Peninsula countries and Yemen are excluded from Asia totals.

Notes : Total meat includes fresh meat and processed meat products

Source : FAOSTAT | © FAO Statistics Division 2006

**Table 2.4.l: Total imports of milk and milk products in milk equivalent in Cwana region and other main regions of the world between 1961 and 2004 (5 year averages in 1000 tons).**

Country	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2004	Annual average growth rate (%)
Arabian Peninsula	111	237	415	1,089	1,647	1,862	1,535	2,093	2,811	7.8%
North Africa	319	489	673	1,278	2,162	2,398	2,569	1,940	2,711	5.1%
Nile Valley & Red Sea	126	184	135	707	1,141	1,235	829	967	1,013	5.0%
South & West Asia	233	378	636	1,644	2,611	1,762	1,381	1,146	1,103	3.7%
Central Asia & Caucasus							453	336	389	-1.5%
<b>Cwana</b>	<b>792</b>	<b>1,291</b>	<b>1,863</b>	<b>4,724</b>	<b>7,573</b>	<b>7,271</b>	<b>6,767</b>	<b>6,482</b>	<b>8,027</b>	<b>5.5%</b>
Oceania	55	90	148	184	293	260	357	488	583	5.6%
Africa	849	1,270	1,871	3,507	5,141	5,082	4,983	4,287	5,558	4.5%
Asia	2,282	3,129	3,547	5,539	6,040	7,157	8,977	11,299	14,349	4.4%
Northern America	541	818	1,292	1,023	1,323	1,458	1,511	2,195	2,794	3.9%
Western Europe	7,933	10,657	13,463	18,484	21,928	25,670	28,269	31,726	35,607	3.6%
EU(15)*	0	0	0	0	0	1,380	1,500	2,364	2,780	4.8%
Africa	479	729	1,117	1,681	2,124	1,711	1,769	1,625	2,139	3.5%
Latin America & Caribbean	1,661	2,018	2,609	4,012	4,194	5,461	6,061	6,863	6,208	3.1%
Eastern & Central Europe	393	475	405	501	529	643	793	886	1,344	2.9%
<b>World</b>	<b>14,289</b>	<b>19,401</b>	<b>25,016</b>	<b>37,239</b>	<b>45,995</b>	<b>52,375</b>	<b>56,736</b>	<b>63,793</b>	<b>73,225</b>	<b>3.9%</b>

\*: EU 15 exports do not include the intra EU trade

Notes : North African countries, Djibouti, Egypt, Somalia and Sudan are excluded from the Africa totals. South and West Asia, Central Asia and Caucasus, Arabian peninsula countries and Yemen are excluded from Asia totals.

Notes : Milk equivalent includes fresh milk and dairy products

Source : FAOSTAT | © FAO Statistics Division 2006

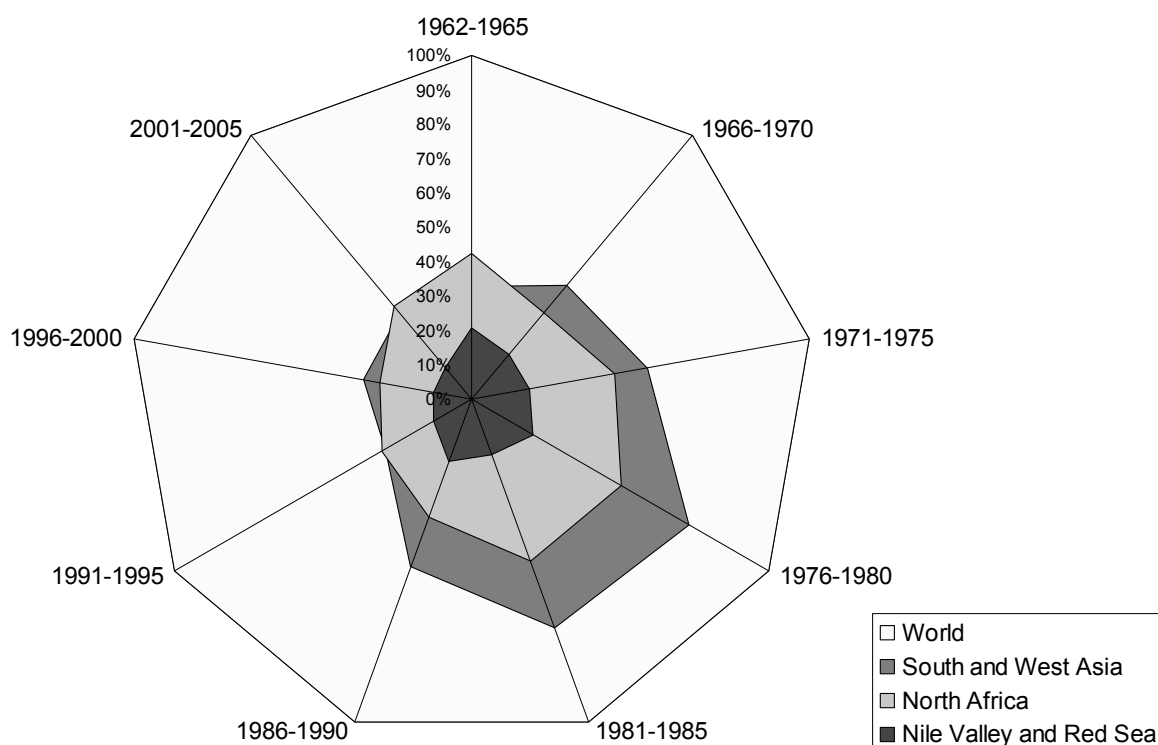


Kyrgyzstan	21	4	4
Kazakhstan	<2.5	8	6
Azerbaijan, Republic of	34	10	7
Turkmenistan	12	8	7
Armenia	52	29	24
Uzbekistan	8	26	25
Tajikistan	22	61	56

Source : Food Security Statistics, FAO, [http://www.fao.org/faostat/foodsecurity/index\\_en.htm](http://www.fao.org/faostat/foodsecurity/index_en.htm)

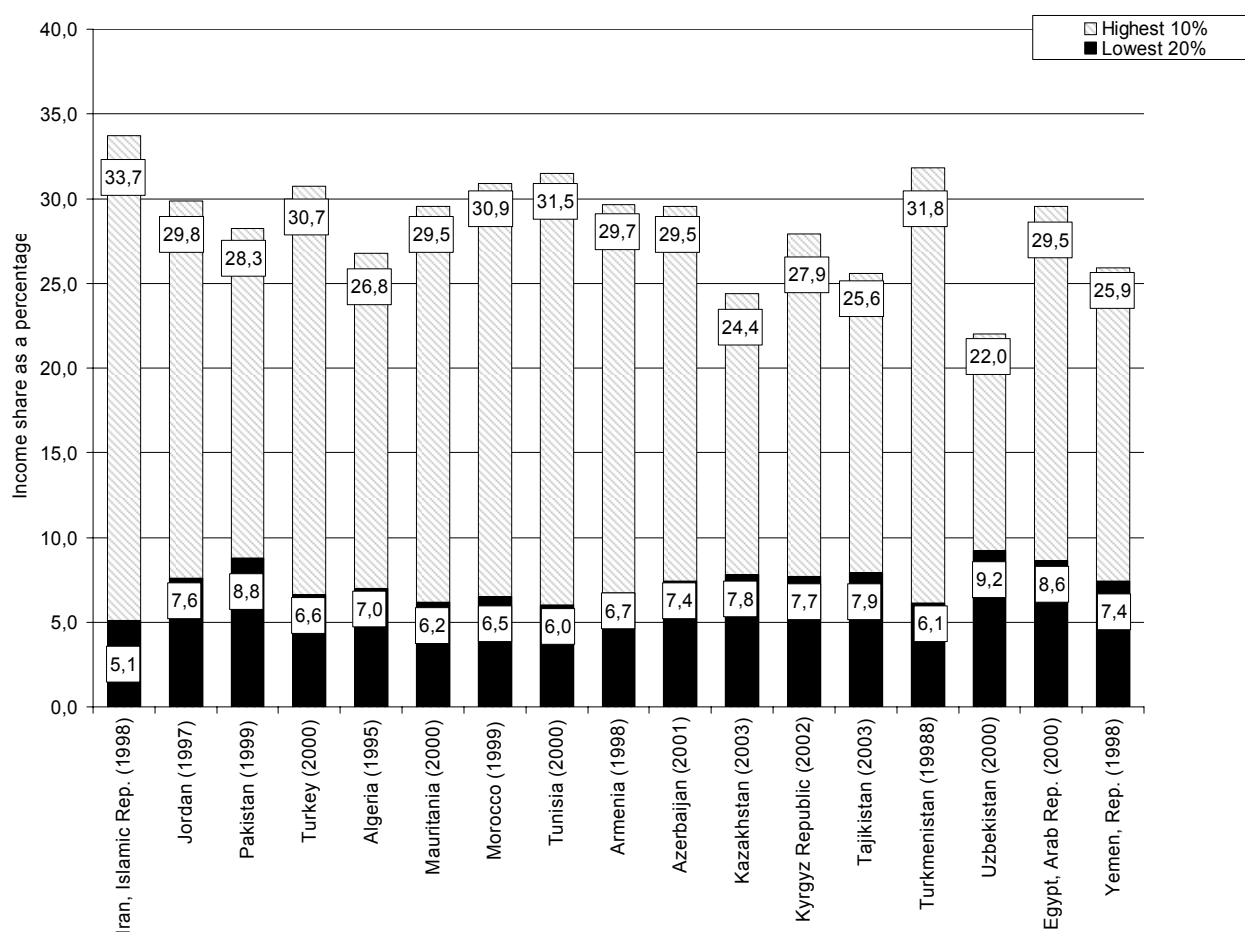
**Figure 2.4.a: Evolution of the gap that separates the GNIs of the Cwana sub-regions from the world average GNI (5 year averages over the 1962-2005 period).**

Source : Author's work based on World Bank data, <http://web.worldbank.org>



Period	GNI per capita (\$US)			Distances from the world average (Sub region GNI per capita/world average)				
	South and West Asia (median)	North Africa (median)	Nile Valley and Red Sea (median)	World average	South and West Asia	North Africa	Nile Valley and Red Sea	World average
1962-1965	178	230	113	543	33%	42%	21%	100%
1966-1970	318	240	124	734	43%	33%	17%	100%
1971-1975	626	510	206	1 208	52%	42%	17%	100%
1976-1980	1,485	1,020	418	2 030	73%	50%	21%	100%
1981-1985	1,758	1,244	430	2 488	71%	50%	17%	100%
1986-1990	1,842	1,298	690	3 546	52%	37%	19%	100%
1991-1995	1,339	1,399	590	4 600	29%	30%	13%	100%
1996-2000	1,660	1,397	593	5 180	32%	27%	11%	100%
2001-2005	1,888	2,062	706	5 827	32%	35%	12%	100%

**Figure 2.4.b: Income shares (as a percentage) held by the highest 10% and the lowest 20% of local populations in Cwana region between 1995 and 2005.**



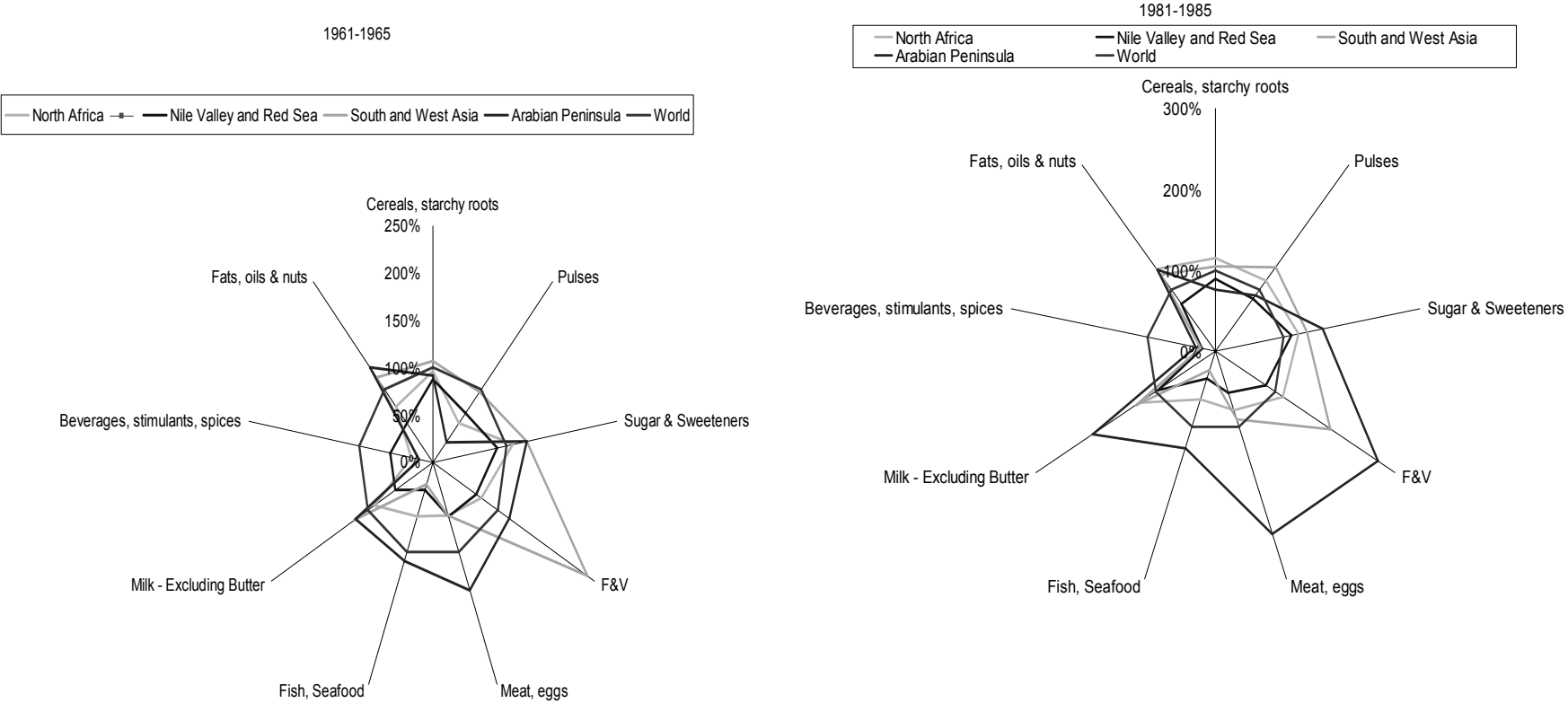
Note: No information is available for Arabian Peninsula countries, Iraq, Lebanon, Libya, Somalia, the Sudan and Syrian Arab Republic

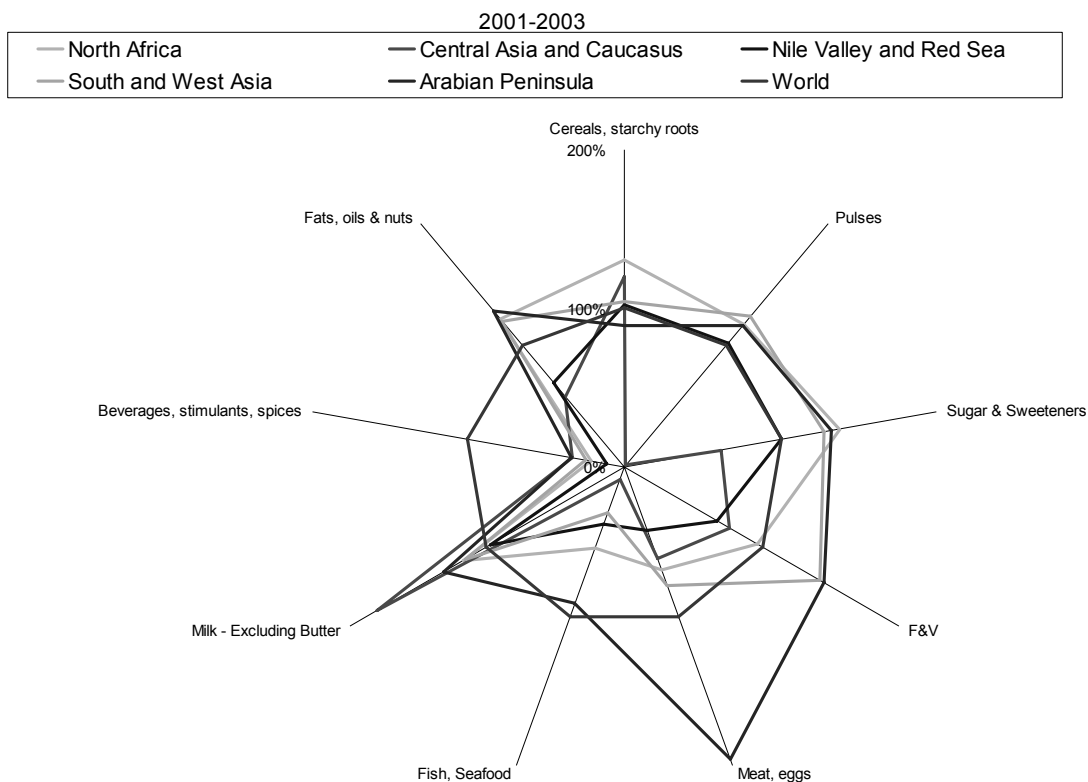
Note : The figures in parenthesis correspond to the survey year

Source : World Development Indicators 05, CD-Rom, The World Bank



Figure 2.4.c: Evolution of the composition of the food supply in Cwana sub-regions (averages for 1961-1965 ; 1981-1985 and 2001-2003).





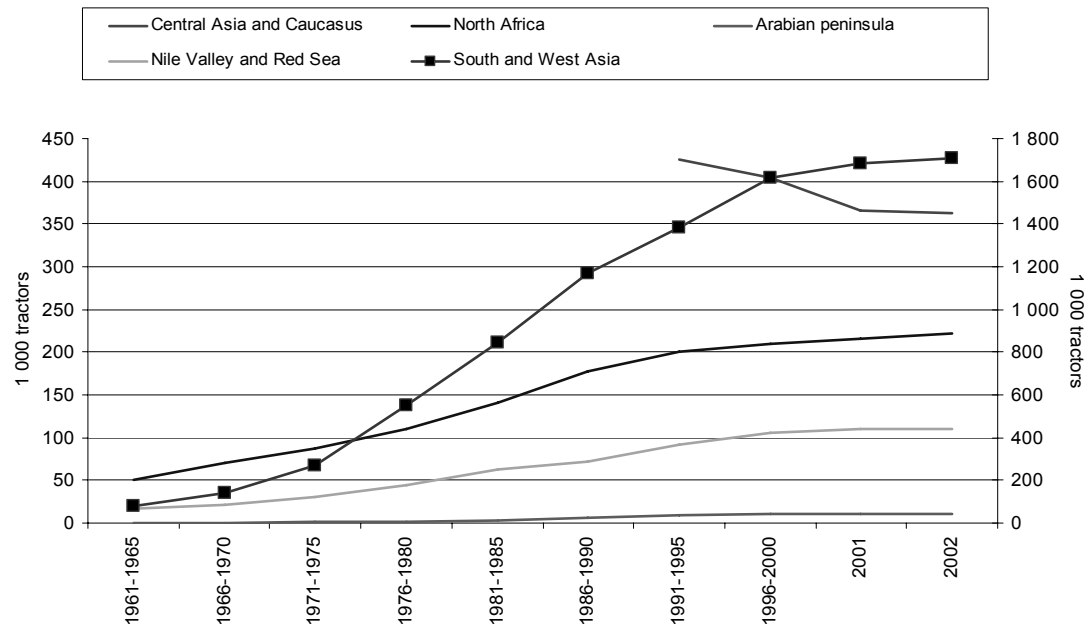
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## APPENDIX

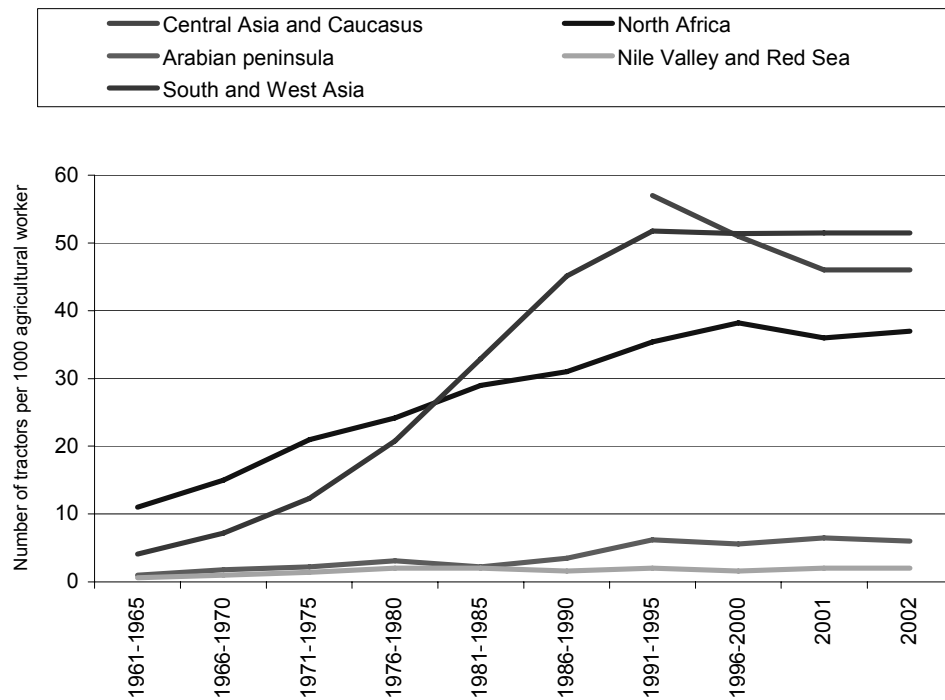
### APPENDIX I : AGRICULTURAL INPUT STRUCTURE

#### AI-1 Evolution of the number of tractors in the Cwana sub-regions (1961-2002)



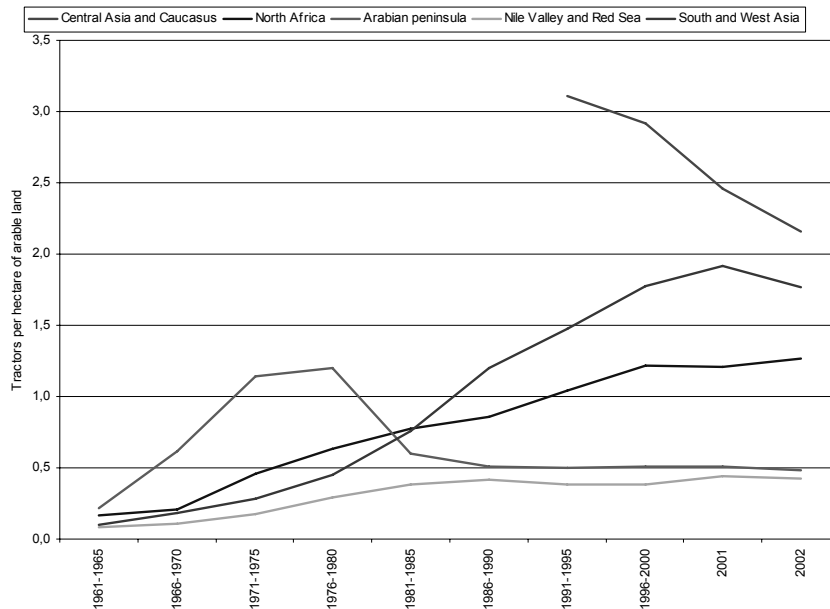
Source : Author's work based on World Bank Statistical Yearbook 2005

#### AI-2 Evolution of the number of tractors per 1.000 agricultural worker in the Cwana sub-regions (1961-2002)



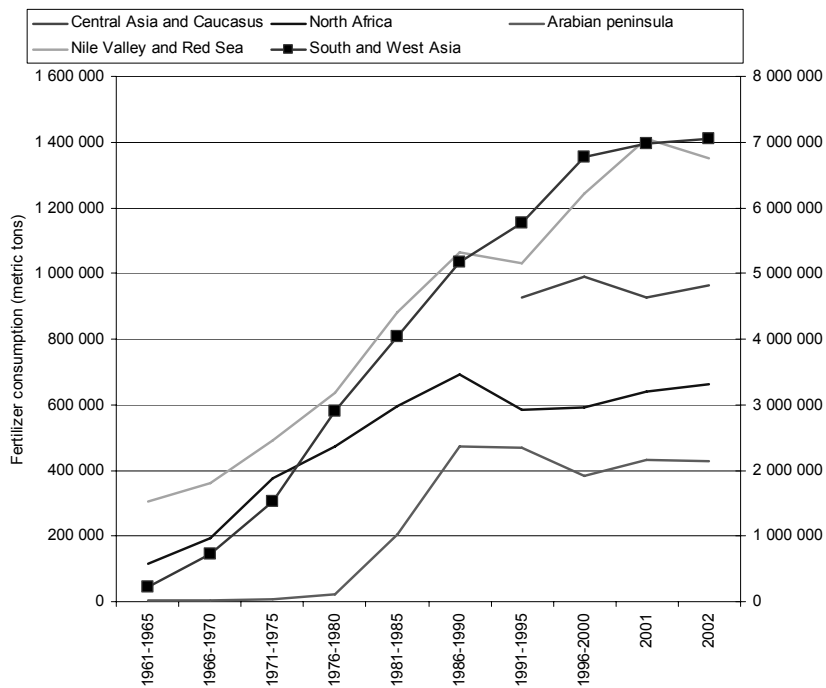
Source : Author's work based on World Bank Statistical Yearbook 2005

### AI-3 Evolution of the number of tractors per hectare of arable land in the Cwana sub-regions (1961-2002)



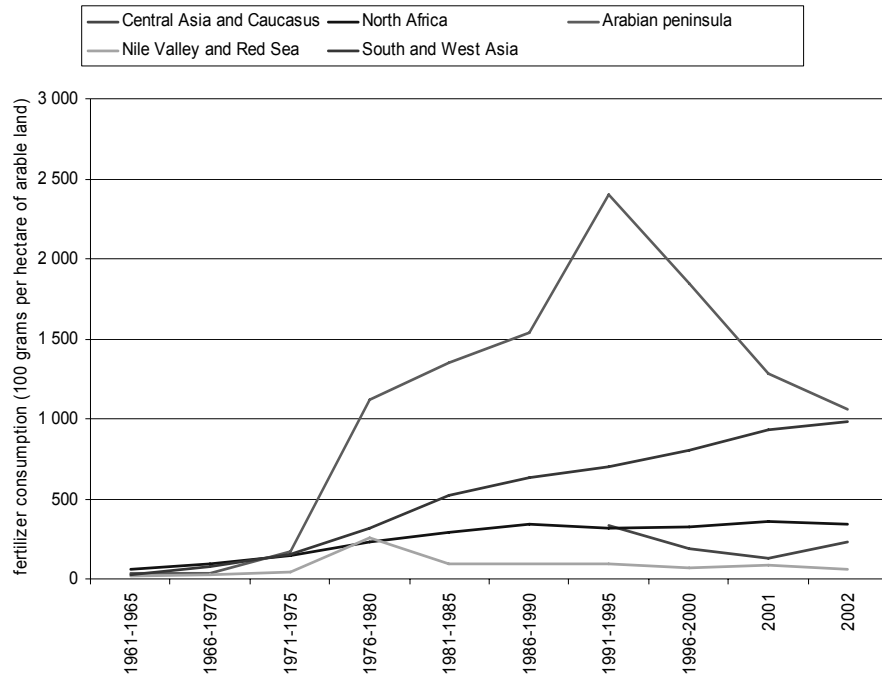
Source : Author's work based on World Bank Statistical Yearbook 2005

### AI-4 Evolution of the total fertilizer consumption in the Cwana sub-regions (1961-2002)



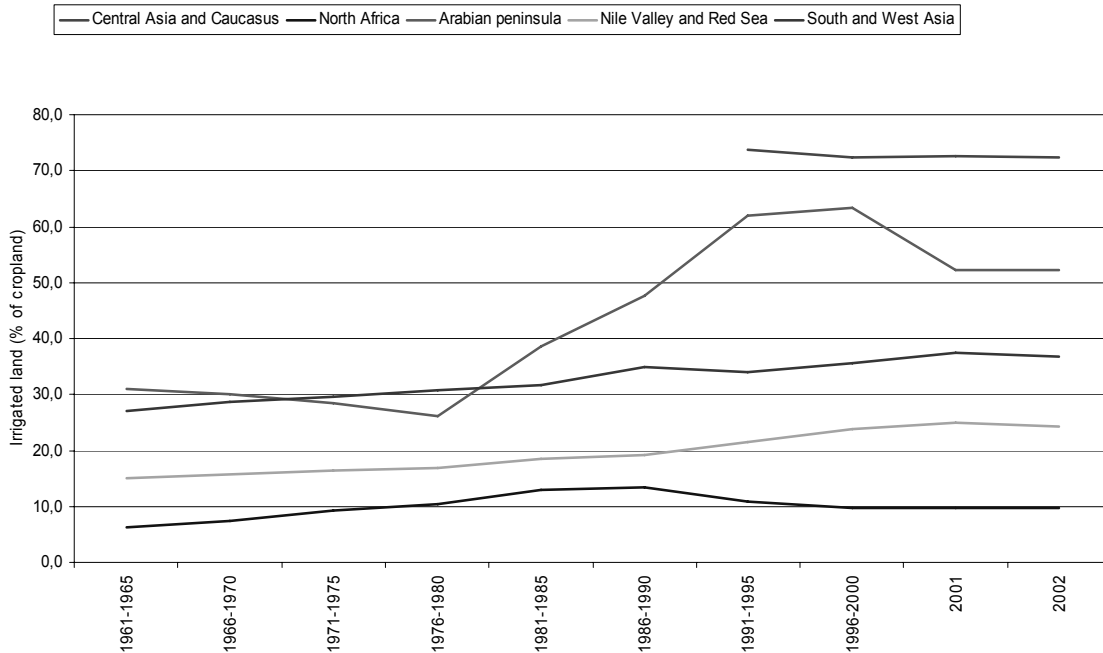
Source : Author's work based on World Bank Statistical Yearbook 2005

**AI-5 Evolution of the fertilizer consumption per hectare of arable land in the Cwana sub-regions (1961-2002)**



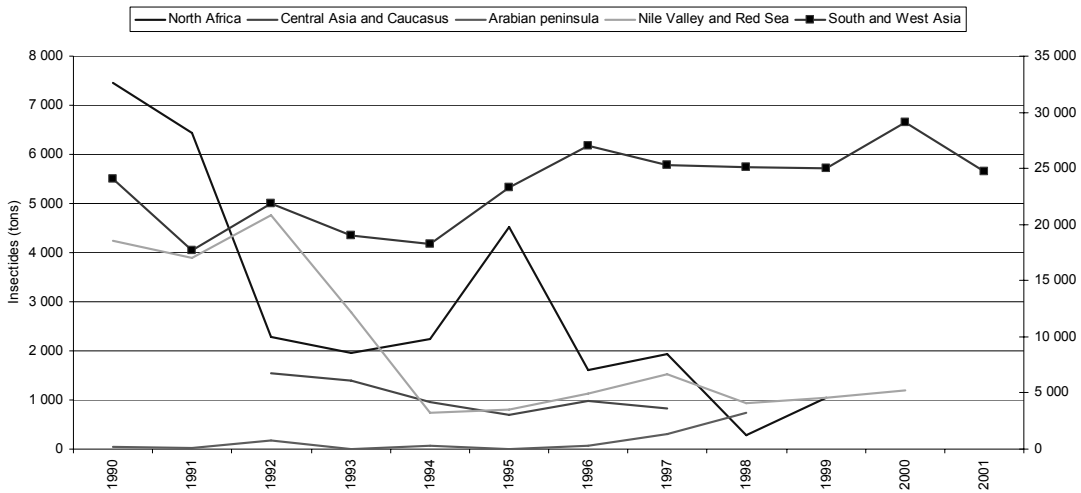
Source : Author's work based on World Bank Statistical Yearbook 2005

**AI-6 Evolution of the share of the irrigated land in the total cropland in the Cwana sub-regions (1961-2002)**



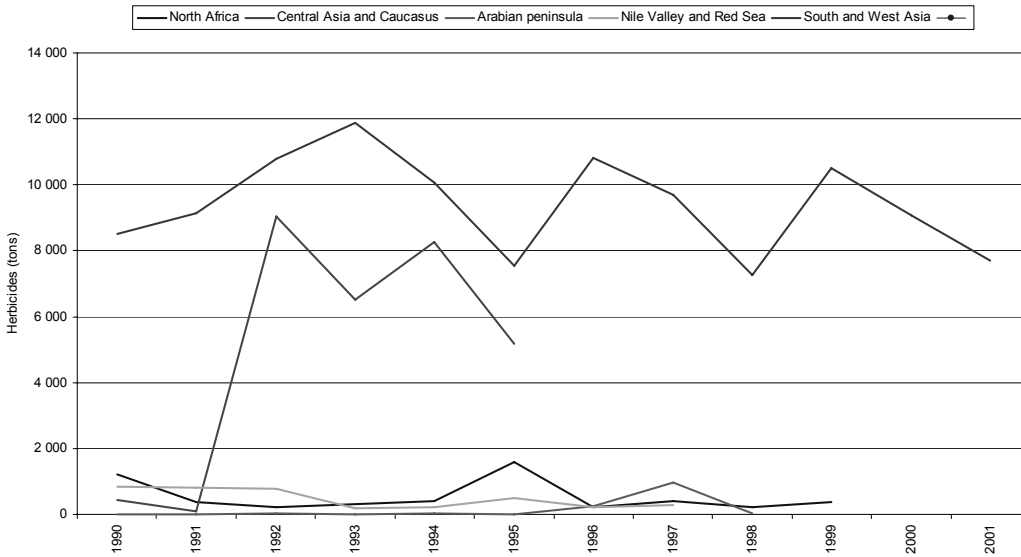
Source : Author's work based on World Bank Statistical Yearbook 2005

#### AI-7 Evolution of the use of insecticides in the Cwana sub-regions (1990-2001)



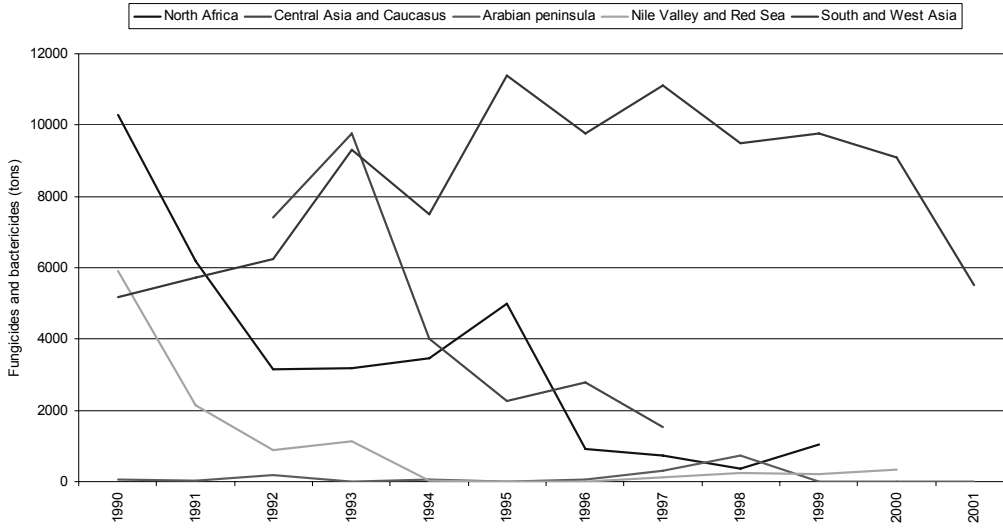
Source : Author's work based on FAO data (<http://www.fao.org>)

#### AI-8 Evolution of the use of herbicides in the Cwana sub-regions (199-2001)



Source : Author's work based on FAO data (<http://www.fao.org>)

**AI-9 Evolution of the use of fungicides and bactericides in the Cwana sub-regions (1990-2001)**



Source : Author's work based on FAO data (<http://www.fao.org>)

## APPENDIX II : PER CAPITA INCOME GROWTH AND ITS DISTRIBUTION

### A I : Gross National Income per capita in the Cwana region between 1962 and 2005 in current US\$

Sub-Region/Country	1962-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	Average annual growth rate (%)
<b>Arabian Peninsula</b>	<b>1 861</b>	<b>760</b>	<b>4 215</b>	<b>13 746</b>	<b>13 902</b>	<b>7 966</b>	<b>9 902</b>	<b>9 986</b>	<b>12 473</b>	
United Arab Emirates			14 850	24 428	26 240	18 168	19 418	19 153	23 770	1,6
Kuwait	3 625	3 576	5 750	16 720	17 798	16 465	18 200	16 838	19 506	4,1
Bahrain					8 663	7 350	9 902	9 986	12 473	1,8
Saudi Arabia		760	2 680	10 772	13 902	7 966	8 288	8 174	9 608	6,9
Oman	98	218	662	3 174	6 516	5 832	5 856	6 372	8 423	1,2
<b>North Africa</b>	<b>230</b>	<b>240</b>	<b>510</b>	<b>1 020</b>	<b>1 244</b>	<b>1 298</b>	<b>1 399</b>	<b>1 397</b>	<b>2 062</b>	
Libya	555	1 462	3 042	8 100	8 020	6 025			4 965	5,4
Tunisia	230	240	510	1 020	1 244	1 298	1 688	2 058	2 366	5,7
Algeria	238	298	608	1 498	2 348	2 698	1 810	1 554	2 062	5,3
Morocco	208	238	390	734	744	878	1 110	1 240	1 394	4,6
Mauritania	118	160	234	380	416	518	496	422	450	3,2
<b>South and West Asia</b>	<b>178</b>	<b>318</b>	<b>626</b>	<b>1 485</b>	<b>1 758</b>	<b>1 842</b>	<b>1 339</b>	<b>1 660</b>	<b>1 888</b>	
Lebanon						1 010	1 818	3 586	4 798	8,1
Turkey		580	794	1 642	1 494	1 842	2 774	2 952	3 238	4,6
Iran, Islamic Rep.				2 058	3 064	3 120	1 310	1 660	2 104	0,1
Iraq	293	362	738	2 516	2 526	2 508				8,0
Pakistan	100	142	156	248	374	406	450	484	556	4,2
Jordan				1 485	2 054	1 944	1 368	1 616	1 888	1,0
Syrian Arab Republic	253	318	626	1 262	1 758	1 186	1 024	912	1 180	3,7
West Bank and Gaza								1 744	1 166	-7,7
Afghanistan	103	124	160	224	260					
<b>Central Asia and Caucasus</b>							<b>473</b>	<b>572</b>	<b>876</b>	
Kazakhstan							1 363	1 306	1 966	3,7
Armenia							363	572	996	10,6
Turkmenistan						865	732	572	897	0,2
Azerbaijan							473	508	876	6,4
Uzbekistan							585	622	476	-2,0
Kyrgyz Republic							420	340	350	-1,8
Tajikistan							265	170	234	-1,2
<b>Nile Valley and Red Sea</b>	<b>113</b>	<b>124</b>	<b>206</b>	<b>418</b>	<b>430</b>	<b>690</b>	<b>590</b>	<b>593</b>	<b>706</b>	
Egypt, Arab Rep.	165	198	288	434	592	806	848	1 286	1 378	5,2
Djibouti							880	820	905	2,8
Yemen, Rep.							330	366	508	4,4
Sudan	113	124	206	418	430	690	332	304	465	3,4
Somalia	70	82	128	128	108	152				3,4
<b>World</b>	<b>543</b>	<b>734</b>	<b>1 208</b>	<b>2 030</b>	<b>2 488</b>	<b>3 546</b>	<b>4 600</b>	<b>5 180</b>	<b>5 827</b>	
Low income	98	114	166	258	312	352	324	372	453	3,7
Middle income	220	282	468	838	1 040	1 130	1 428	1 756	2 023	5,4
Lower middle income	180	232	390	668	800	950	1 112	1 368	1 515	5,2
Upper middle income	520	632	1 100	2 170	2 914	2 610	3 960		5 399	5,7
High income	1 798	2 562	4 484	7 992	10 464	16 710	114 860	26 318	29 265	6,9

Source : World Development Indicators 05, CD-ROM, World Bank, World Development Indicators 06 and 07 <http://web.worldbank.org>



**All-2 : Poverty headcount ratio at national poverty line (% of population**

Countries	Poverty ratio	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Algeria	National Rural Urban						23 30 15			12 17 7				
Mauritania	National Rural Urban							50 66 30				46 61 25		
Morocco	National Rural Urban		13 18 8								19 27 12			
Tunisia	National Rural Urban	7 13 4					8 14 4							
Armenia	National Rural Urban										55 51 58		51 49 52	
Azerbaijan	National Rural Urban						68						49 42 55	
Kazakhstan	National Rural Urban							35 39 30						
Kyrgyz Republic	National Rural Urban											52 56 44	48 51 41	
Uzbekistan	National Rural Urban											28 31 23		
Jordan	National Rural Urban		15						12					
Pakistan	National Rural Urban				29 33 17						33 36 24			
Turkey	National Rural Urban					28								27 35 22
Egypt, Arab Rep.	National Rural Urban							23 23 23				17		
Yemen, Rep.	National Rural Urban									42 45 31				

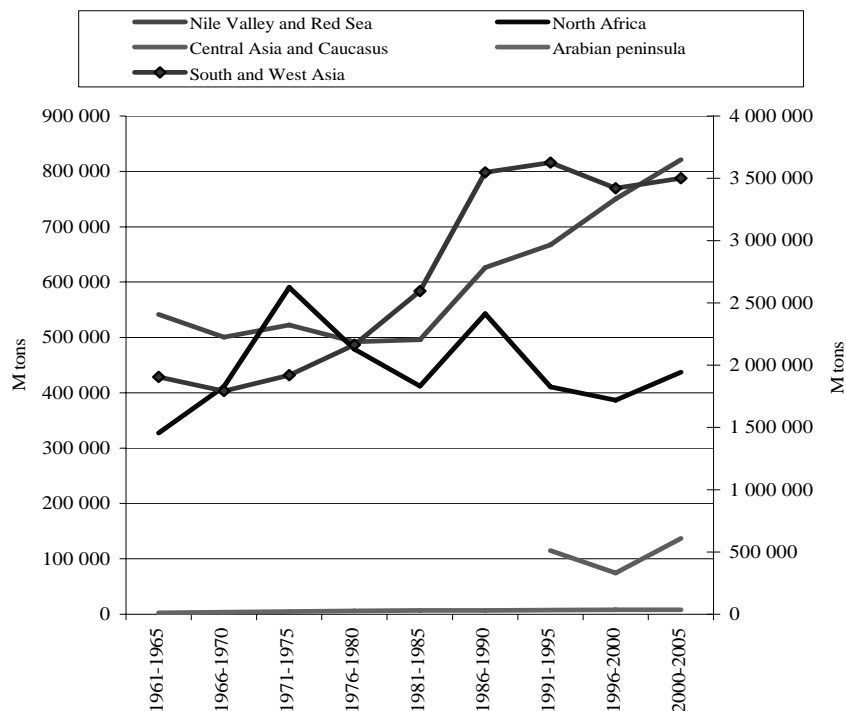
Note : no information was given for the Arabian Peninsula countries, Afghanistan, Djibouti, Syria, Turkmenistan

Source : Author's work based on World Bank Data, World Development indicators 05, World Bank, CD-Rom;

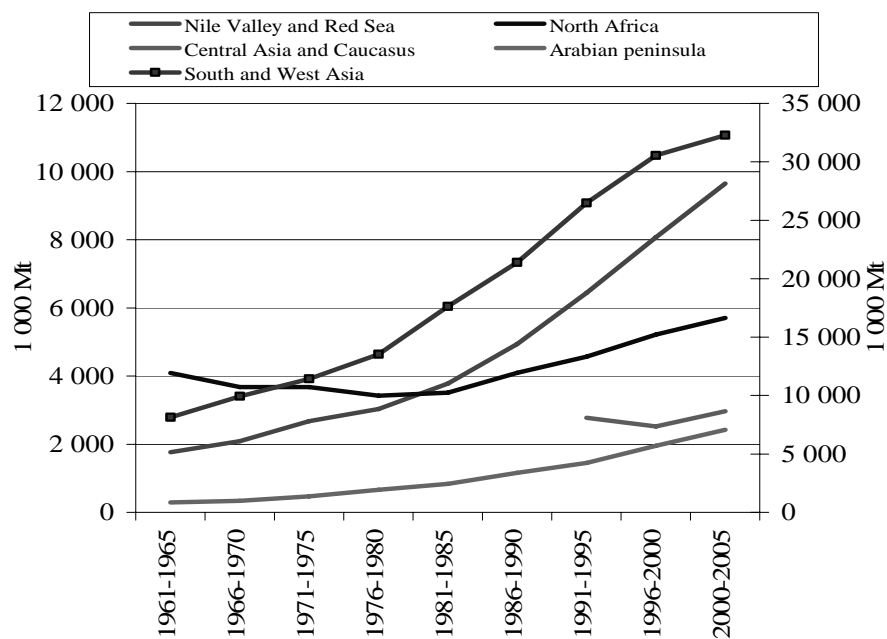
<http://web.worldbank.org>

### APPENDIX III : AGRICULTURAL PRODUCTION

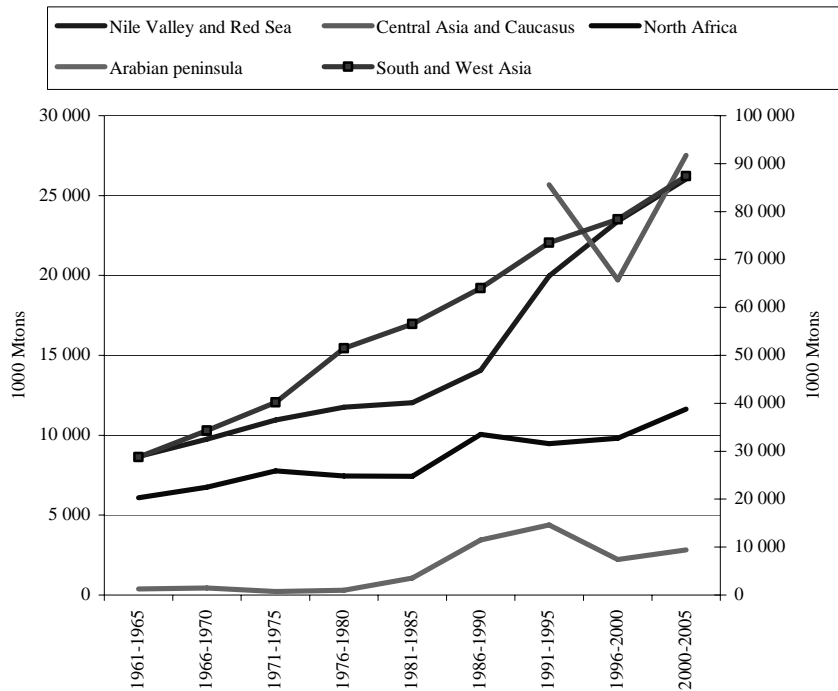
#### AIII-1 Evolution of the vegetables production in the Cwana sub-regions (1961-2005)



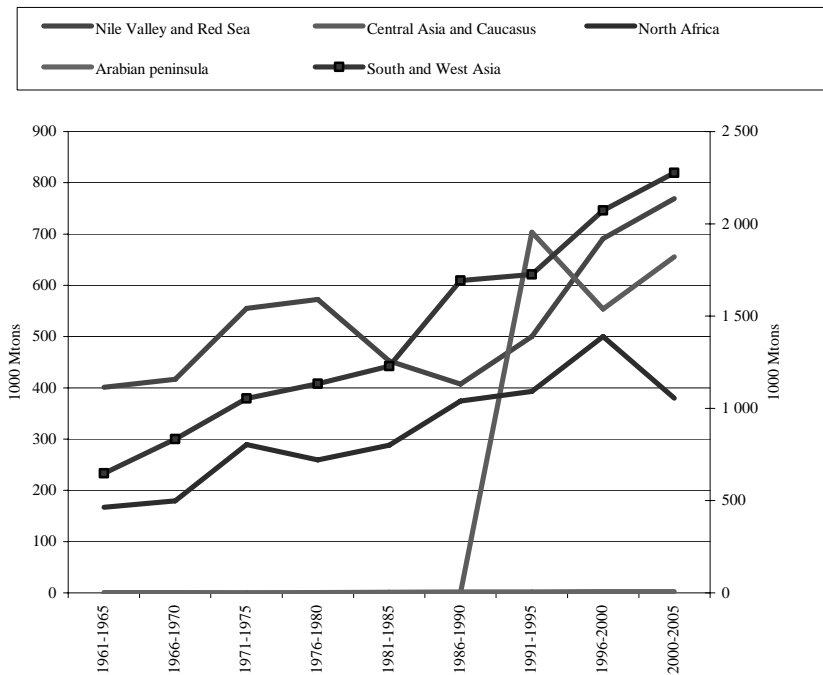
#### AIII-2 Evolution of the fruits production in the Cwana sub-regions (1961-2005)



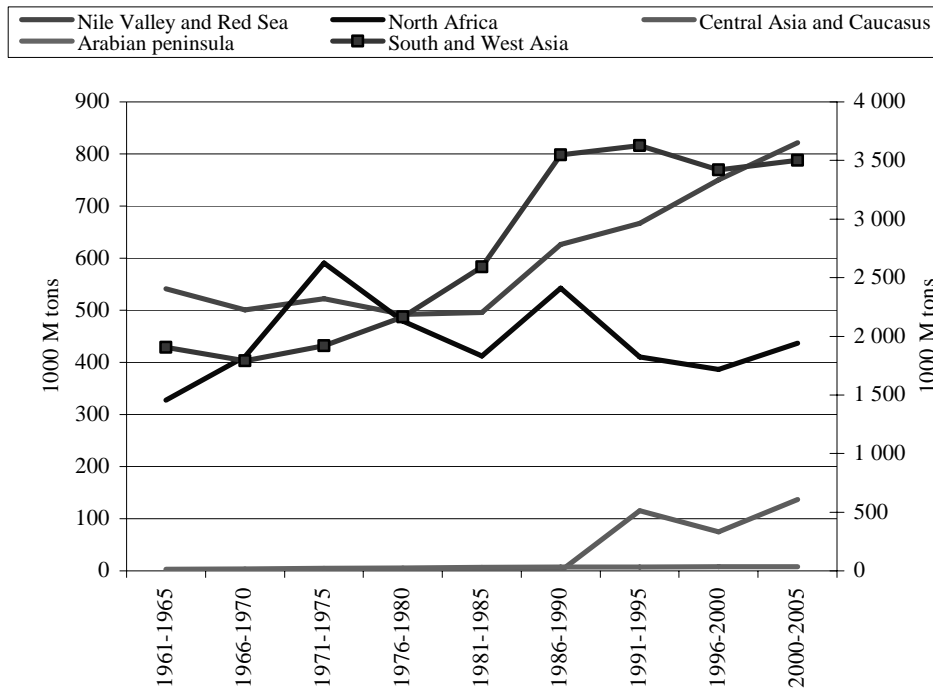
### AIII-3 Evolution of cereals production in the Cwana sub-regions (1961-2005)



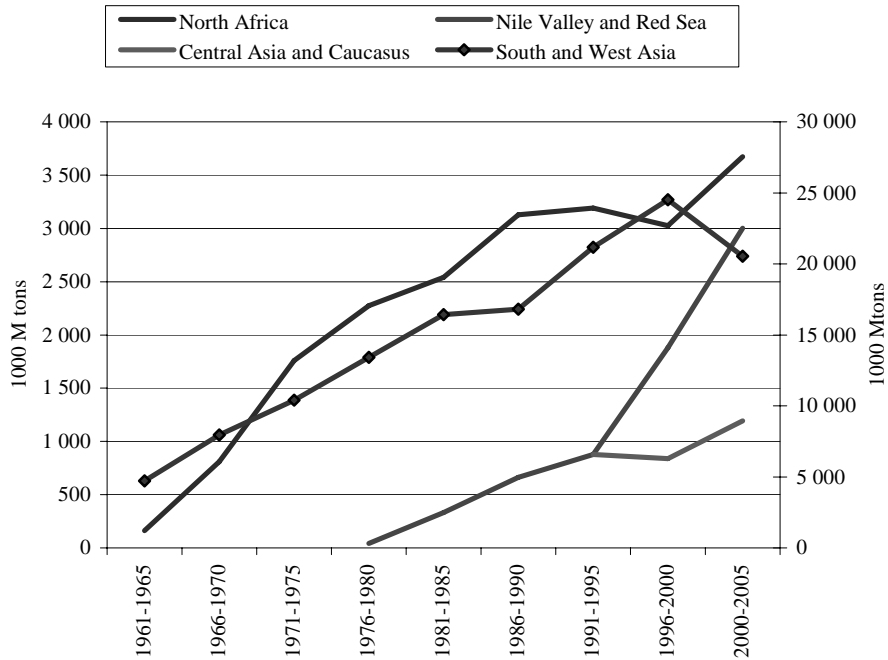
### AIII-4 Evolution of oilcrops production in the Cwana sub-regions (1961-2005)



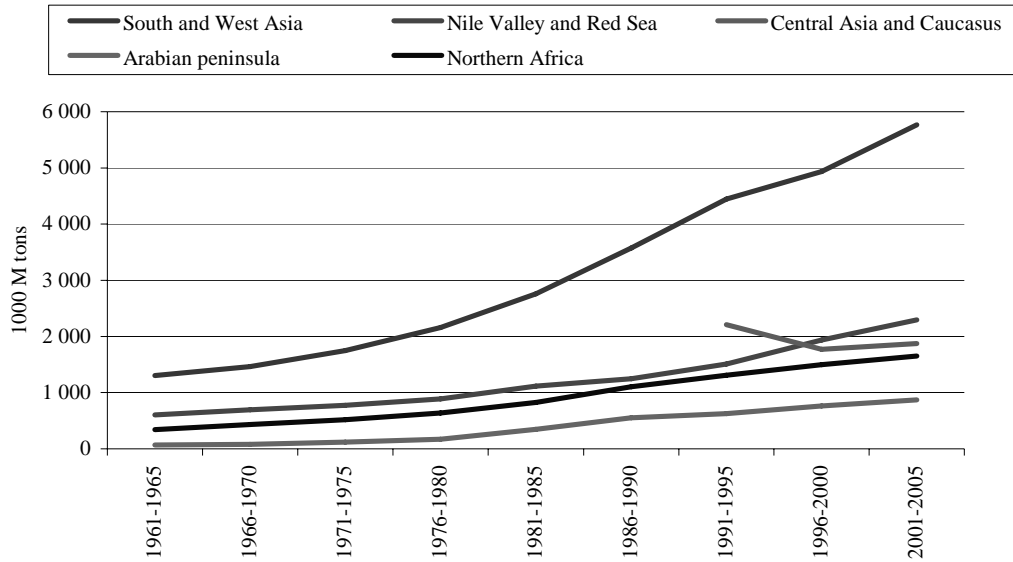
**AIII-5 Evolution of pulses production in the Cwana sub-regions (1961-2005)**



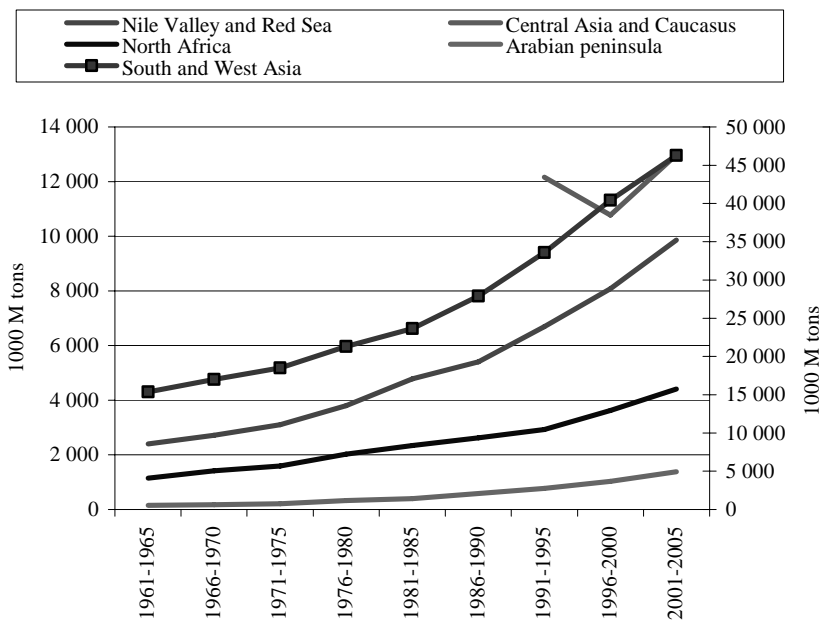
**AIII-6 Evolution of sugar beet production in Cwana sub-regions (1961-2005)**



**AIII-7 Evolution of total meat production in the Cwana sub-regions (1961-2005)**

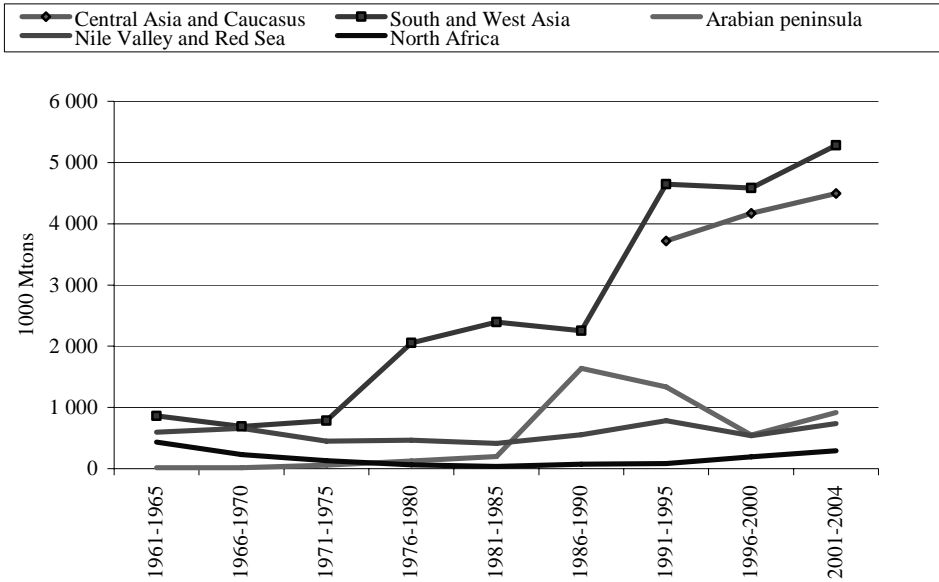


**AIII-8 Evolution of total milk production in Cwana sub-regions (1961-2005)**

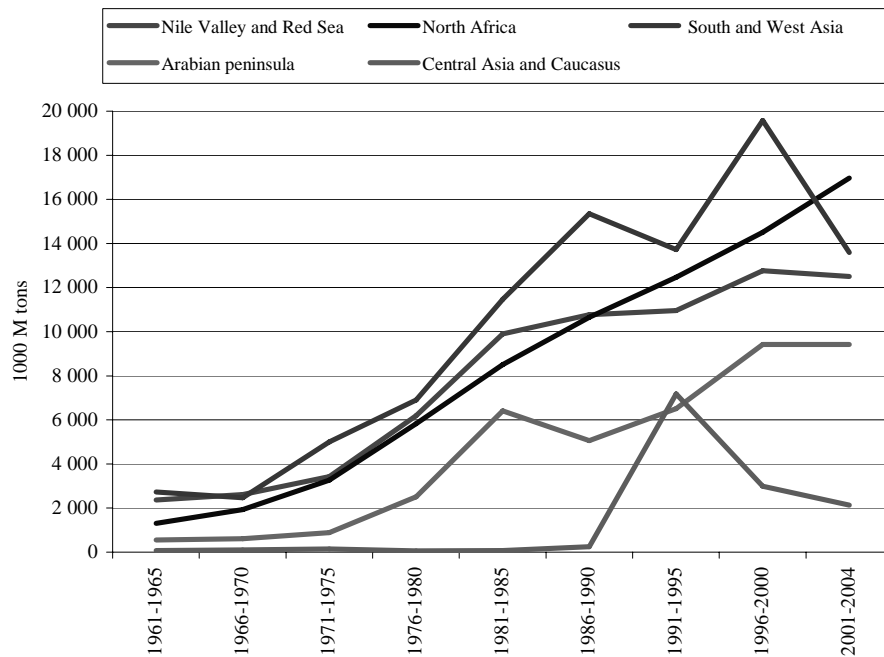


## APPENDIX IV : INTERNATIONAL MARKETS

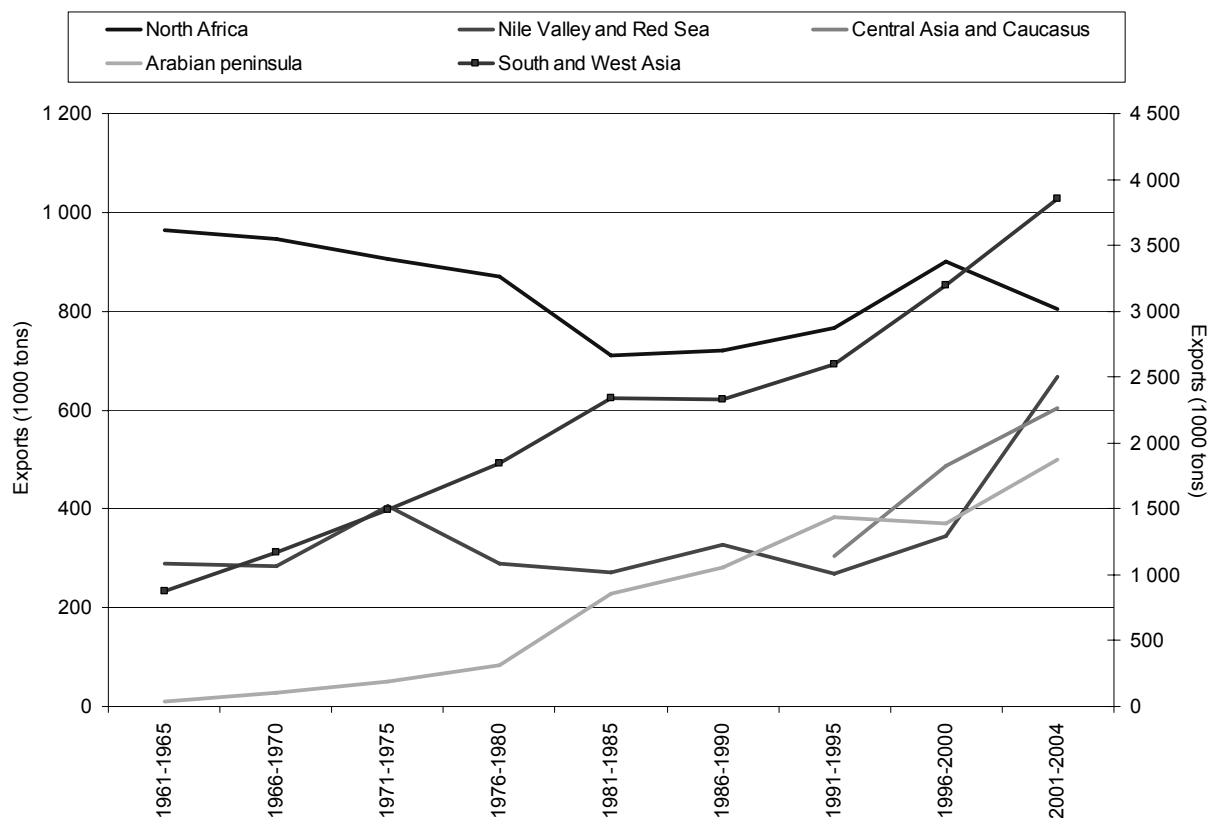
### AIV-1 Evolution of cereal exports of the Cwana sub-regions between 1961 and 2004



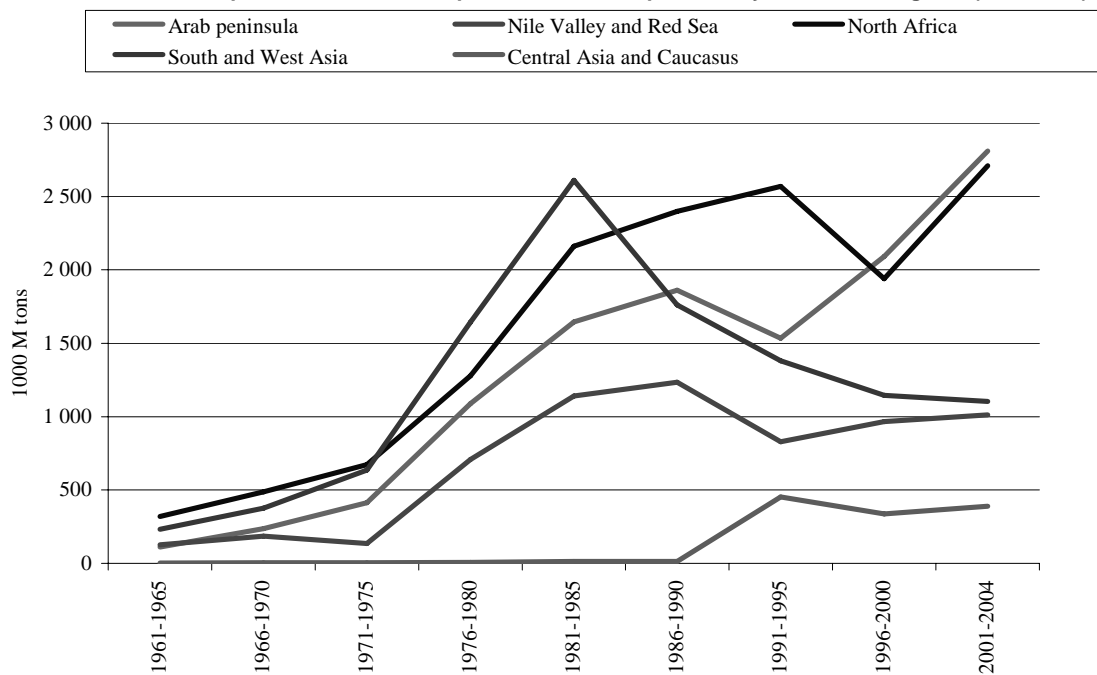
### AIII-2 Evolution of cereals imports by the Cwana sub-regions (1961-2004)



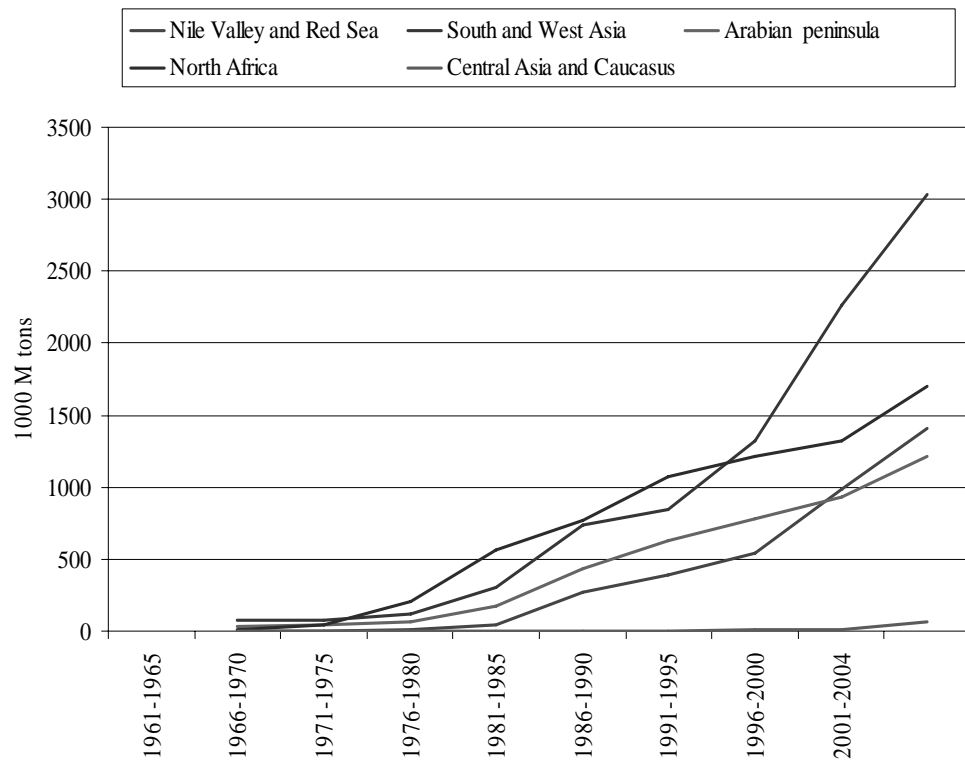
**AIV-3 Evolution of the volume exports of the fresh fruits and vegetables in Cwana sub-regions (1961-2004)  
(5 year averages)**



**AIV-3 Evolution of imports of milk and milk products in milk equivalent by Cwana sub-regions (1961-2004)**



**AIV-4 Evolution of the imports of feeding stuffs (1961-2004)**





# APPENDIX V CHANGING LIFESTYLES AND CONSUMER PREFERENCES AND DEMANDS

## AV-1 : Human Development Index Trends in the countries of Cwana region (1975-2004)

HDI Rank	Country	1975	1980	1985	1990	1995	2000	2004
<b>Arabian Peninsula 0.8333</b>								
33	Kuwait	0.763	0.778	0.781	..	0.814	0.841	0.871
39	Bahrain	..	0.747	0.784	0.812	0.828	0.842	0.859
46	Qatar	..	..	..	..	..	..	0.844
49	United Arab Emirates	0.734	0.769	0.786	0.810	0.819	0.833	0.839
56	Oman	0.492	0.546	0.639	0.695	0.740	0.776	0.81
76	Saudi Arabia	0.606	0.661	0.674	0.708	0.742	0.765	0.777
<b>Central Asia and Caucasus 0.7221</b>								
79	Kazakhstan				0.768	0.723	0.736	0.774
80	Armenia				0.738	0.701	0.736	0.768
99	Azerbaijan							0.736
105	Turkmenistan							0.724
110	Kyrgyzstan							0.705
113	Uzbekistan					0.681	0.688	0.696
122	Tajikistan			0.700	0.697	0.631	0.627	0.652
<b>South and West Asia 0.7183</b>								
78	Lebanon				0.682	0.729	0.748	0.774
86	Jordan		0.643	0.665	0.685	0.710	0.744	0.76
92	Turkey	0.591	0.614	0.650	0.682	0.713	0.743	0.757
96	Iran. Islamic Rep. of	0.567	0.571	0.612	0.651	0.695	0.723	0.746
100	Occupied Palestinian Territories							0.736
107	Syrian Arab Republic	0.543	0.589	0.625	0.646	0.673	0.690	0.716
134	Pakistan	0.365	0.388	0.420	0.463	0.493	0.511	0.539
<b>North Africa 0.6824</b>								
64	Libyan Arab Jamahiriya							0.798
87	Tunisia	0.516	0.572	0.623	0.659	0.700	0.739	0.760
102	Algeria	0.508	0.560	0.611	0.650	0.672	0.701	0.728
123	Morocco	0.432	0.479	0.517	0.549	0.580	0.610	0.640
153	Mauritania	0.342	0.365	0.386	0.390	0.425	0.447	0.486
<b>Nile Valley and Red Sea 0.551</b>								
111	Egypt	0.439	0.488	0.541	0.580	0.613	0.654	0.702
141	Sudan	0.350	0.376	0.396	0.427	0.465	0.496	0.516
148	Djibouti					0.479	0.485	0.494
150	Yemen				0.394	0.438	0.467	0.492

Note : calculated on the basis of data on life expectancy from UN (United Nations). 2005a. Correspondence on life expectancy at birth. Department of Economic and Social Affairs, Population Division. March. New York. ; data on adult literacy rates from UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics. 2005. Correspondence on adult and youth literacy rates. March. Montreal. and UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics. 2006a. Correspondence on adult and youth literacy rates. April. Montreal. ; data on combined gross enrolment ratios from UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics. 1999. Statistical Yearbook. Montreal. and {56} and data on GDP per capita (2000 PPP US\$) and GDP per capita (PPP US\$) from World Bank. 2006.

Source : World Development Indicators 2006. CD-ROM. Washington, D.C.

**AV-2 : Evolution of the share of food consumption in total household spending in some countries of the CWANA region (%)**

Country Name	Survey coverage	before 1990	Between 1990 and 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>North Africa</b>												
Algeria	National	52,5				53,0						
Libyan Arab Jamahiriya <sup>2</sup>	National	37,2										
Morocco	National	63,0										
Tunisia	National	44,0	42,0									
<b>Central Asia and Caucasus</b>												
Armenia	National			52,0			64,5		65,5	67,5	68,0	
	Rural								69,9	71,6	76,5	
	Urban								63,4	64,8	63,5	
Azerbaijan <sup>4</sup>	National									53,6	54,7	
	Rural									55,1	56,1	
	Urban									52,3	53,5	
Kazakhstan	National		68,6	66,3	65,1	62,1	59,8	58,1	55,7	54,2	50,3	
Tajikistan	National					79,5	87,7	86,7	84,3	80,9	75,4	73,6
<b>Arabian Peninsula</b>												
Bahrain	National	33,7										
Kuwait	National	30,0										
Oman <sup>3</sup>	National	41,2										
Qatar	National	24,0										
<b>Nile Valley and Red Sea</b>												
Egypt	National	60,0										
Yemen	National		55,0									
<b>South and West Asia</b>												
Iran Islamic Rep.	National	49,0										
Jordan	National	38,0										
	Rural	39,2										
	Urban	35,1										
Lebanon	National				34,0							
Pakistan	National	44,0	47,0	50,3		47,5			48,3			
	Rural	49,7		54,8		52,9			54,4			
	Urban	41,2		43,4		39,5			38,9			
Syrian Arab Republic	National	50,0										
Turkey <sup>1</sup>	National	33,0	38,5								35,2	
	Rural		47,6									
	Urban		33,9									

Notes :

1: Includes tobacco & hotel expenses

2 : Data are for capital city

3 : The survey covered households of Omani Government Employees earning monthly salaries between R.O. 120/- and R.O. 300/-.

4 : Excludes alcoholic beverages

Source : [http://hdr.undp.org/hdr2006/report\\_fr.cfm](http://hdr.undp.org/hdr2006/report_fr.cfm)

**AV-3 : Average annual growth rates of food consumption and population between 1969 and 2003 (%)**

Region/Country	Periods From 1969-1971 to 1979-1981			From 1979-1981 to 1990-992			From 1990-1992 to 1995-1997			From 1995-1997 to 2001-2003		
	Food per capita	Food	Population	Food per capita	Food	Population	Food per capita	Food	Population	Food per capita	Food	Population
<b>North Africa</b>												
Algeria	3,7	6,8	3,1	0,9	3,8	2,8	-0,1	2,1	2,0	0,7	2,3	1,6
Tunisia	1,8	4,2	2,3	1,0	3,3	2,3	0,4	1,6	1,6	0,2	1,4	1,2
Libyan Arab Jamahiriya	3,5	7,7	4,3	-0,5	2,9	3,3	0,1	2,2	1,9	0,2	2,1	1,9
Mauritania	0,9	3,3	2,4	2,0	4,4	2,3	1,0	3,6	2,6	0,5	3,4	2,9
Morocco	1,1	3,4	2,4	0,9	3,2	2,3	0,1	2,1	1,7	0,1	1,8	1,6
<b>Nile Valley and Red Sea</b>												
Djibouti	0,0	7,2	7,3	0,6	5,2	4,6	2,3	4,0	1,6	1,6	4,4	2,8
Egypt	2,1	4,3	2,2	0,9	3,3	2,4	0,7	2,3	2,0	0,1	2,0	1,9
Sudan	0,6	3,6	2,9	0,0	2,5	2,5	1,4	2,1	2,4	-0,5	1,7	2,2
Yemen	1,0	3,6	2,6	0,3	4,2	3,9	-0,1	3,5	4,5	0,0	3,4	3,5
<b>Arabian Peninsula</b>												
Kuwait	1,4	7,5	6,1	-2,4	1,3	3,7	5,7	4,6	-3,3	0,2	5,7	5,5
Saudi Arabia	4,2	9,4	5,1	-0,4	4,8	5,2	0,3	3,5	2,7	0,1	3,2	3,1
<b>South and West Asia</b>												
Iran, Islamic Rep. Of	2,6	5,7	3,1	0,8	4,3	3,5	0,5	1,5	1,7	0,2	1,4	1,2
Jordan	1,5	4,7	3,2	0,7	4,6	3,9	-1,2	3,3	5,0	0,1	3,2	3,1
Lebanon	1,5	2,3	0,8	1,4	1,8	0,4	0,0	2,0	3,0	0,0	1,8	1,8
Pakistan	-0,2	2,5	2,7	0,4	3,5	3,1	1,1	2,3	2,4	-0,7	1,9	2,6
Palestine, Occupied Tr.										-0,8	3,0	3,8
Syrian Arab Republic	2,1	5,5	3,4	-0,4	3,1	3,4	1,0	3,4	2,7	0,4	2,9	2,5
Turkey	0,7	3,1	2,4	0,7	2,9	2,2	-0,5	1,1	1,8	-0,3	1,2	1,5
<b>Central Asia and Caucasus</b>												
Armenia*							0,7	-0,4	-1,1			
Azerbaijan, Republic of*							3,2	4,1	0,9			
Kazakhstan*							-2,3	-3,3	-0,9			
Kyrgyzstan*							3,2	4,7	1,5			
Tajikistan*							-2,8	-1,8	1,1			
Turkmenistan*							1,4	3,2	1,8			
Uzbekistan*							-2,7	-1,0	1,7			

\* Period : From 1993-1995 to 2001-2003

**Data source:** FAO Statistics Division, [http://www.fao.org/es/ess/faostat/foodsecurity/index\\_en.htm](http://www.fao.org/es/ess/faostat/foodsecurity/index_en.htm)

AV-4 : Composition of per capita daily food intake (kcalories/capita/day)

Food groups	Cereals (excluding beer) & starchy roots	Pulses	Sugar & Sweeteners	Fruits & vegetables	Meat & eggs	Fish & seafood	Milk - excluding butter	Alcoholic beverages, stimulants, spices	Fats, oils & nuts	Total calories
<b>North Africa</b>										
1961-1965	1 388	48	182	60	80	10	124	32	169	<b>2 092</b>
1971-1975	1 601	56	208	93	99	13	136	29	271	<b>2 505</b>
1981-1985	1 801	71	245	108	141	14	179	28	377	<b>2 964</b>
1991-1996	1 962	75	251	118	149	14	169	27	418	<b>3 181</b>
2001-2003	1 987	67	289	132	169	15	171	28	420	<b>3 280</b>
<b>Arabian Peninsula</b>										
1961-1965	1 313	25	213	96	195	19	162	20	285	<b>2 291</b>
1971-1975	1 255	42	300	175	238	19	202	30	254	<b>2 447</b>
1981-1985	1 190	56	316	260	433	27	291	37	375	<b>2 880</b>
1991-1996	1 093	70	246	207	360	23	200	34	313	<b>2 455</b>
2001-2003	1 357	67	278	198	481	26	193	45	441	<b>3 004</b>
<b>South and West Asia</b>										
1961-1965	1 537	86	212	193	81	4	166	20	254	<b>2 552</b>
1971-1975	1 533	71	218	146	94	4	154	21	272	<b>2 513</b>
1981-1985	1 628	84	270	185	162	6	187	28	350	<b>2 900</b>
1991-1996	1 660	84	271	205	169	7	170	34	426	<b>3 025</b>
2001-2003	1 588	71	268	194	195	9	169	33	413	<b>2 939</b>
<b>Central Asia and Caucasus</b>										
1961-1965										
1971-1975										
1981-1985										
1991-1996	1 842	2	118	89	159	3	226	36	235	<b>2 709</b>
2001-2003	1 828	1	129	105	152	2	263	44	198	<b>2 721</b>
<b>Nile Valley and Red Sea</b>										
1961-1965	1 259	59	145	54	82	5	79	62	117	<b>1 862</b>
1971-1975	1 307	58	179	75	76	5	76	54	185	<b>2 016</b>
1981-1985	1 396	52	226	80	98	8	135	25	219	<b>2 239</b>
1991-1996	1 586	47	218	80	86	8	122	15	212	<b>2 373</b>
2001-2003	1 563	58	210	92	105	11	143	14	238	<b>2 434</b>
<b>World</b>										
1961-1965	1 431	88	167	81	135	17	136	108	218	<b>2 163</b>
1971-1975	1 465	67	187	87	158	20	136	127	238	<b>2 249</b>
1981-1985	1 560	62	202	96	180	21	141	131	284	<b>2 393</b>
1991-1996	1 577	57	199	109	210	24	137	126	304	<b>2 440</b>
2001-2003	1 523	57	210	136	246	28	146	131	344	<b>2 477</b>

Source : Author's work based on FAO data, <http://www.fao.org>

# APPENDIX VI : LABOR MARKET

AVI-1 : Share of economically active population in agriculture in total economically active population (%)

Country	1961- 1965	1966- 1970	1971- 1975	1976- 1980	1981- 1985	1986- 1990	1991- 1995	1996- 2000	2001- 2003
<b>Arabian peninsula</b>									
	<b>59.0</b>	<b>53.6</b>	<b>45.3</b>	<b>35.6</b>	<b>27.4</b>	<b>19.5</b>	<b>14.5</b>	<b>11.2</b>	<b>9.0</b>
Bahrain	11.7	8.7	6.4	4.3	3.3	2.4	1.6	1.3	0.9
Kuwait	1.6	1.6	1.8	1.9	1.7	1.3	1.1	1.1	1.1
Oman	64.2	58.7	54.6	51.3	48.5	46.0	42.7	38.6	35.2
Qatar	15.0	11.2	7.5	4.1	2.8	2.8	2.1	1.5	1.2
Saudi Arabia	69.1	65.6	57.8	47.4	35.8	23.7	15.8	11.3	8.5
Untd Arab Em	22.4	12.1	7.4	5.3	5.6	7.2	6.8	5.4	4.4
<b>Central Asia and Caucasus</b>									
							<b>28.0</b>	<b>25.9</b>	<b>24.0</b>
Armenia							15.7	13.7	12.1
Azerbaijan							29.5	27.6	25.9
Kazakhstan							20.5	18.5	16.8
Kyrgyzstan							29.7	26.9	24.5
Tajikistan							38.2	35.1	32.4
Turkmenistan							35.8	34.1	32.6
Uzbekistan							32.3	29.0	26.3
<b>North Africa</b>									
	<b>67.6</b>	<b>61.7</b>	<b>55.4</b>	<b>48.8</b>	<b>42.6</b>	<b>36.9</b>	<b>33.0</b>	<b>30.2</b>	<b>29.4</b>
Algeria	66.2	58.4	49.4	39.6	32.8	28.0	25.8	24.8	23.8
Libya	52.5	41.1	33.0	27.1	20.6	13.7	9.1	6.7	5.3
Mauritania	89.8	85.9	80.5	74.0	66.6	58.4	54.6	53.4	88.7
Morocco	70.6	66.6	62.3	57.8	52.5	46.9	41.9	37.7	34.6
Tunisia	57.7	51.6	45.9	40.8	35.6	30.3	27.2	25.4	23.9
<b>South and West Asia</b>									
	<b>66.9</b>	<b>64.1</b>	<b>60.9</b>	<b>57.4</b>	<b>53.1</b>	<b>48.5</b>	<b>45.0</b>	<b>42.1</b>	<b>39.8</b>
Afghanistan	78.8	76.9	75.0	73.3	71.9	70.8	69.3	67.6	66.3
Iran	54.5	49.5	44.9	40.7	37.0	33.6	30.4	27.6	25.6
Iraq	56.6	53.8	45.3	33.2	24.7	18.5	14.0	11.1	9.2
Jordan	44.8	36.3	28.6	20.9	17.0	15.6	13.7	12.0	10.7
Lebanon	32.7	23.5	18.1	15.4	12.2	8.7	6.0	4.3	3.2
Pakistan	65.4	64.7	64.1	63.5	59.8	54.2	50.5	48.1	46.1
Palest. O.T.	44.9	36.7	28.6	21.0	17.2	15.8	14.0	12.3	11.0
Syria	59.5	57.4	51.1	42.4	37.4	34.6	31.6	28.9	27.0
Turkey	76.3	72.3	67.6	62.4	58.3	54.9	51.3	47.7	44.8
<b>Nile Valley and Red Sea</b>									
	<b>72.6</b>	<b>70.0</b>	<b>67.5</b>	<b>65.6</b>	<b>61.5</b>	<b>55.9</b>	<b>51.3</b>	<b>47.6</b>	<b>44.6</b>
Djibouti	89.5	88.1	86.8	85.2	83.9	82.7	81.1	79.2	77.8
Egypt	64.4	62.1	60.0	58.1	52.2	43.8	38.4	34.9	32.2
Somalia	83.4	81.9	80.4	78.9	77.4	75.9	74.1	72.0	70.2
Sudan	84.4	80.4	76.8	73.5	71.4	70.0	67.0	62.8	59.2
Yemen	81.3	79.3	76.3	72.5	67.7	62.2	57.1	52.3	48.4
<b>Cwana</b>	<b>68.1</b>	<b>64.9</b>	<b>61.3</b>	<b>57.4</b>	<b>52.5</b>	<b>47.1</b>	<b>41.2</b>	<b>38.3</b>	<b>36.2</b>
Africa	78.5	76.6	73.8	70.3	67.2	64.4	61.5	58.7	56.5
Asia	74.6	72.1	69.8	67.4	65.2	63.2	60.3	57.4	55.2
SouthAmerica	44.5	41.6	38.1	34.2	29.9	25.2	21.6	18.8	16.9
Oceania	26.8	24.7	23.1	22.1	21.4	20.7	20.1	19.6	19.4
Eastern Europe	50.8	39.4	32.2	27.5	23.5	19.8	16.5	13.6	11.6
Western Europe	18.2	14.6	12.0	10.1	8.5	7.0	5.7	4.7	4.0
EU (15)	4.0	3.4	3.1	3.0	2.9	2.6	2.3	2.0	1.8
North America	27.5	23.1	18.6	14.4	11.7	9.8	8.0	6.5	5.5
<b>World</b>	<b>59.6</b>	<b>57.1</b>	<b>55.0</b>	<b>52.9</b>	<b>51.1</b>	<b>49.5</b>	<b>47.7</b>	<b>45.6</b>	<b>43.9</b>

Source : Author's work based on FAO data. <http://www.fao.org>

**AVI-2 : Share of economically active female population in total economically active population (%)**

Country	1961- 1965	1966- 1970	1971- 1975	1976- 1980	1981- 1985	1986- 1990	1991- 1995	1996- 2000	2001- 2003
<b>Arabian peninsula</b>									
	<b>26.0</b>	<b>27.0</b>	<b>27.9</b>	<b>28.5</b>	<b>28.2</b>	<b>27.5</b>	<b>27.4</b>	<b>27.8</b>	<b>28.2</b>
Bahrain	4.2	5.1	6.2	7.4	9.1	11.6	13.5	16.3	18.9
Kuwait	4.6	5.4	6.7	9.7	12.2	15.6	18.1	20.0	21.6
Oman	4.7	7.0	10.2	12.3	15.7	20.8	22.5	22.8	24.1
Qatar	5.4	6.7	7.1	7.0	7.7	9.1	9.9	11.7	14.2
Saudi Arabia	4.4	3.1	3.6	5.6	7.4	10.0	13.0	15.9	18.2
United Arab Emirates	4.0	4.7	5.8	7.1	8.5	10.5	12.8	16.4	19.5
<b>Nile Valley and Red Sea</b>									
	<b>26.9</b>	<b>27.5</b>	<b>28.0</b>	<b>28.7</b>	<b>29.0</b>	<b>29.1</b>	<b>29.8</b>	<b>31.2</b>	<b>32.2</b>
Djibouti	46.1	46.0	46.0	45.9	45.9	45.8	45.8	45.7	45.7
Egypt	24.7	25.6	26.2	26.8	27.3	27.7	29.0	31.0	32.3
Somalia	44.2	44.0	43.8	43.5	43.4	43.4	43.3	43.3	43.4
Sudan	26.5	26.7	26.8	26.9	27.0	27.1	27.8	29.0	30.0
Yemen	5.1	4.7	4.0	4.7	6.9	10.0	11.9	13.4	14.8
<b>South and West Asia</b>									
	<b>26.6</b>	<b>26.5</b>	<b>26.4</b>	<b>26.4</b>	<b>26.4</b>	<b>26.4</b>	<b>27.8</b>	<b>29.9</b>	<b>31.5</b>
Afghanistan	33.8	34.0	34.2	34.3	34.3	34.1	34.5	35.1	35.6
Iran	18.1	18.5	19.1	19.8	20.2	20.6	22.7	25.8	28.4
Iraq	15.9	16.3	16.7	17.1	17.0	16.5	17.3	19.1	20.4
Jordan	13.0	13.4	13.9	14.5	15.3	16.5	19.0	22.2	24.5
Lebanon	14.7	17.6	19.6	21.6	24.1	26.0	27.5	28.9	29.9
Pakistan	20.5	21.2	21.9	22.7	23.5	24.2	26.0	28.4	30.2
Palest. O.T.	13.0	13.4	14.1	14.8	15.7	17.0	19.7	23.4	25.9
Syria	22.2	22.7	23.3	23.9	24.5	24.9	25.8	26.9	27.9
Turkey	40.2	38.6	37.1	36.0	35.4	34.8	35.5	37.1	38.2
<b>North Africa</b>									
	<b>24.7</b>	<b>26.3</b>	<b>27.5</b>	<b>28.4</b>	<b>28.7</b>	<b>28.8</b>	<b>29.6</b>	<b>31.0</b>	<b>34.9</b>
Algeria	17.6	19.4	20.6	21.2	21.1	21.1	23.1	26.4	29.1
Libya	17.7	16.7	16.9	18.0	18.5	18.4	19.9	22.4	24.2
Mauritania	46.1	46.1	45.8	45.3	45.0	44.8	44.5	44.3	47.6
Morocco	29.4	30.8	32.1	33.2	33.8	34.3	34.6	34.7	35.0
Tunisia	20.4	22.6	25.0	27.7	29.0	29.1	30.0	31.4	32.5
<b>Central Asia and Caucasus</b>									
							<b>45.9</b>	<b>46.6</b>	<b>46.9</b>
Armenia							48.1	48.4	48.6
Azerbaijan							44.2	45.2	45.9
Kazakhstan							46.7	47.5	48.0
Kyrgyzstan							46.5	47.1	47.2
Tajikistan							43.2	44.4	45.3
Turkmenistan							45.1	45.7	45.9
Uzbekistan							46.0	46.6	46.8
<b>Cwana</b>	<b>26.0</b>	<b>26.2</b>	<b>26.3</b>	<b>26.5</b>	<b>26.6</b>	<b>26.6</b>	<b>30.2</b>	<b>31.7</b>	<b>33.2</b>
Africa	39.8	40.0	40.1	40.1	40.1	40.1	40.4	40.8	41.0
Asia	37.3	37.7	38.2	38.6	39.0	39.3	39.7	40.0	40.3
SouthAmerica	21.8	23.2	24.8	26.7	29.1	31.9	33.7	34.7	35.4
Oceania	29.7	31.8	33.9	36.1	38.3	40.2	41.8	43.0	43.7
Eastern Europe	41.6	42.4	43.1	43.8	44.3	44.6	45.0	45.3	45.5
Western Europe	31.8	33.0	34.6	36.4	38.2	40.0	41.2	41.9	42.5
EU (15)	31.9	33.1	34.6	36.4	38.2	40.0	41.2	41.9	42.5
North America	32.6	34.9	37.4	40.0	42.2	44.0	45.2	46.1	46.6
<b>World</b>	<b>36.8</b>	<b>37.5</b>	<b>38.1</b>	<b>38.8</b>	<b>39.4</b>	<b>39.8</b>	<b>40.2</b>	<b>40.7</b>	<b>40.9</b>

Source : Author's work based on FAO data. <http://www.fao.org>

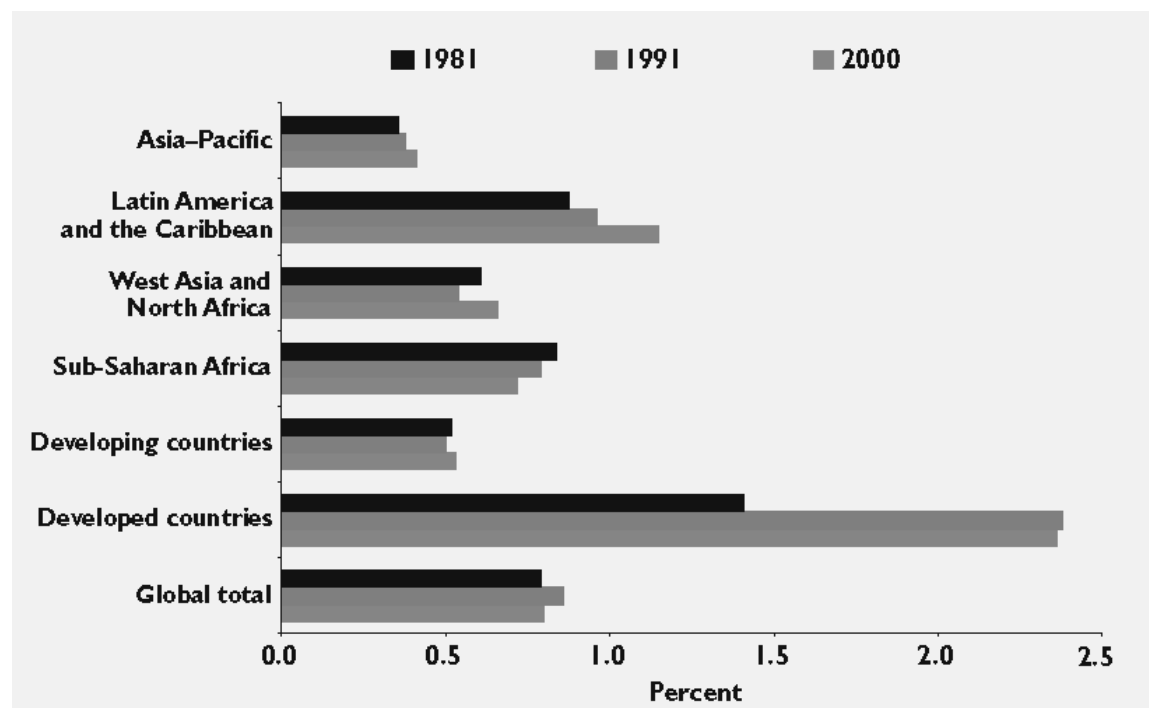
**AVI- 3 : Evolution of the remittances and compensation received from workers abroads in some countries of Cwana region**

Country	Average annual growth rates						Remittances from the workers abroad (\$ US millions)		
	Period	(%)	Period	(%)	Period	(%)	2001	2002	2003
<b>South and West Asia</b>									
Pakistan	(1976-1980)	49.3%	(1980-1990)	-0.3%	(1990-2000)	-3.6%	1.461	3.554	3.964
Lebanon					(1990-2000)	-1.8%	2.307	2.500	2.700
Jordan	(1972-1980)	57.5%	(1980-1990)	-7.0%	(1990-2000)	15.2%	2.011	2.135	2.201
Turkey	(1974-1980)	6.4%	(1980-1990)	2.7%	(1990-2000)	4.9%	2.786	1.936	729
Syrian Arab Republic					(1990-2000)	0.4%	653	610	618
Iran. Islamic Republic					(1990-2000)	-12.4%	326	333	340
<b>North Africa</b>									
Morocco	(1975-1980)	14.6%	(1980-1990)	7.1%	(1990-2000)	0.8%	3.261	2.877	3.614
Tunisia	(1976-1980)	22.4%	(1980-1990)	4.4%	(1990-2000)	4.3%	927	1.071	1.250
Algeria	(1970-1980)	6.8%	(1980-1990)	-2.4%	(1990-2000)	-4.8%	670	1.070	1.090
Mauritania	(1977-1980)	81.7%	(1980-1990)	13.4%	(1990-2000)	-21.6%	2	2	2
<b>Nile Valley and Red Sea</b>									
Egypt	(1977-1980)	30.6%	(1980-1990)	7.0%	(1990-2000)	-3.5%	2.911	2.893	2.961
Yemen. Republic					(1990-2000)	2.6%	1.295	1.294	1.270
Sudan	(1977-1980)	60.0%	(1980-1990)	-16.7%	(1990-2000)	30.4%	740	978	1.224
<b>Central Asia and Caucasus</b>									
Azerbaijan					(1995-2000)	80.2%	104	182	171
Armenia					(1995-2000)	6.0%	94	131	168
Kazakhstan					(1995-2000)	1.0%	165	205	147
Tajikistan								79	146
Kyrgyz Republic					(1995-2000)	118.7%	28	67	108
<b>Arabian Peninsula</b>									
Oman	(1978-1980)	6.5%	(1980-1990)	-0.5%	(1990-2000)	-	39	39	39

Source : Author's work based on World Bank Data. World Development Indicators 05. CD-Rom. The World Bank

## 2.6 Impact on Agricultural Production and Development Goals

Figure 2.6.a: Intensity of public agricultural R&D



Source: Pardey, P.G., N. Beintema, S. Dehmer, and S. Wood. 2006. Agricultural Research: A Growing Global Divide? IFPRI, Agricultural Science and Technology Indicators Initiative, Washington D.C. August 2006. (Figure 3).

Notes: The intensity ratios measure total public agricultural R&D spending as a percentage of agricultural output agricultural GDP. The developing-country category includes countries that also constitute regional totals.

Table 2.6.a: Estimated global public and private agricultural R&D investments, circa 2000

Region/country	Expenditures (million 2000 international dollars)			Share (percent)	
	Public	Private	Total	Public	Private
Asia-Pacific	7,523	663	8,186	91.9	8.1
Latin America and the Caribbean	2,454	124	2,578	95.2	4.8
Sub-Saharan Africa	1,461	26	1,486	98.3	1.7
Middle East and North Africa	1,382	50	1,432	96.5	3.5
Developing-country subtotal	12,819	862	13,682	93.7	6.3
High-income country subtotal	10,191	12,086	22,277	45.7	54.3
Total	23,010	12,948	35,958	64.0	36.0

Source: Pardey, P.G., N. Beintema, S. Dehmer, and S. Wood. 2006. Agricultural Research: A Growing Global Divide? IFPRI, Agricultural Science and Technology Indicators Initiative, Washington D.C. August 2006. (Table 5).