Outlook, Opportunities and Constraints for African Agricultural Markets and Trade

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Plan of presentation

- Some basic Africa facts
- International commodity price developments in light of African agricultural performance
- Africa medium term agricultural trade projections
- Regional Africa agricultural trade prospects
- Africa agricultural protection
- Constraints to African productivity growth
- Trade polices to promote faster agricultural growth
- Conclusions and challenges for enhancing African agricultural trade and productivity

Africa is still highly dependent on agriculture

Share of Agriculture in GDP				
	1969-71	1979-81	1989-91	2002-04
North Africa	19.1	14.7	16.0	13.6
Sub-Saharan Africa: LDC	40.2	40.4	37.5	38.8
Sub-Saharan Africa: Other	30.6	27.6	27.1	26.6
Africa	31.9	29.6	28.7	28.4
Share of economically active population in agriculture in total economically active population				
	1969-71	1979-81	1989-91	2002-04
North Africa	0.54	0.43	0.30	0.23
Sub-Saharan Africa: LDC	0.83	0.79	0.76	0.71
Sub-Saharan Africa: Other	0.68	0.60	0.49	0.41
Africa	0.76	0.70	0.63	0.57

In Africa agriculture still accounts for a large share of exports

Share of agricultural exports in total exports of goods and services				
	1969-71	1979-81	1989-91	2002-04
North Africa	24.5	7.3	4.2	3.7
Sub-Saharan Africa: LDC	65.5	43.4	38.6	32.4
Sub-Saharan Africa: Other	37.4	25.5	20.7	23.5
Africa	46.8	29.6	25.1	23.4
Share of agricultural exports in total merchandise exports				
	1969-71	1979-81	1989-91	2002-04
North Africa	33.4	11.8	8.3	6.0
Sub-Saharan Africa: LDC	65.6	54.4	46.0	32.5
Sub-Saharan Africa: Other	52.1	34.2	26.2	19.3
Africa	58.8	44.7	36.9	26.3

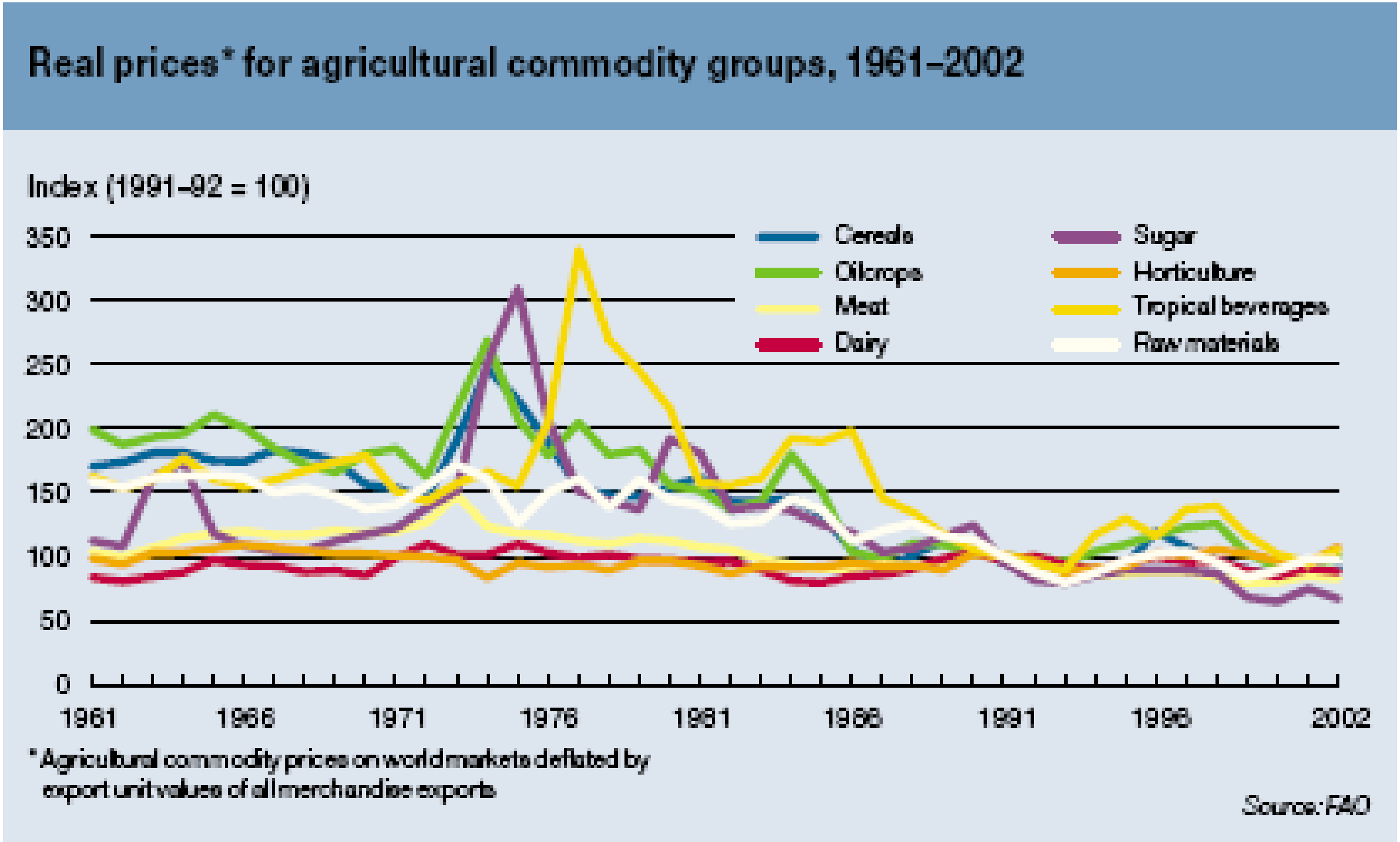
Despite large agricultural sectors, food imports make up a large share of total imports and export earnings

Share of agricultural imports in total imports of goods and services				
	1969-71	1979-81	1989-91	2002-04
North Africa	20.4	4.8	3.5	3.4
Sub-Saharan Africa: LDC	38.4	22.2	19.6	15.1
Sub-Saharan Africa: Other	33.5	20.9	21.4	15.9
Africa	33.3	18.5	17.3	13.2
Share of agricultural imports in total merchandise imports				
	1969-71	1979-81	1989-91	2002-04
North Africa	23.9	24.2	23.0	17.5
Sub-Saharan Africa: LDC	21.5	22.2	25.9	27.3
Sub-Saharan Africa: Other	17.4	14.8	14.2	18.1
Africa	20.6	20.3	22.4	23.7
Share of food imports in total exports of goods and services				
	1969-71	1979-81	1989-91	2002-04
North Africa	14.4	18.3	13.2	9.9
Sub-Saharan Africa: LDC	37.6	28.2	30.2	34.9
Sub-Saharan Africa: Other	14.1	8.7	6.8	11.1
Africa	24.1	18.8	17.9	20.9

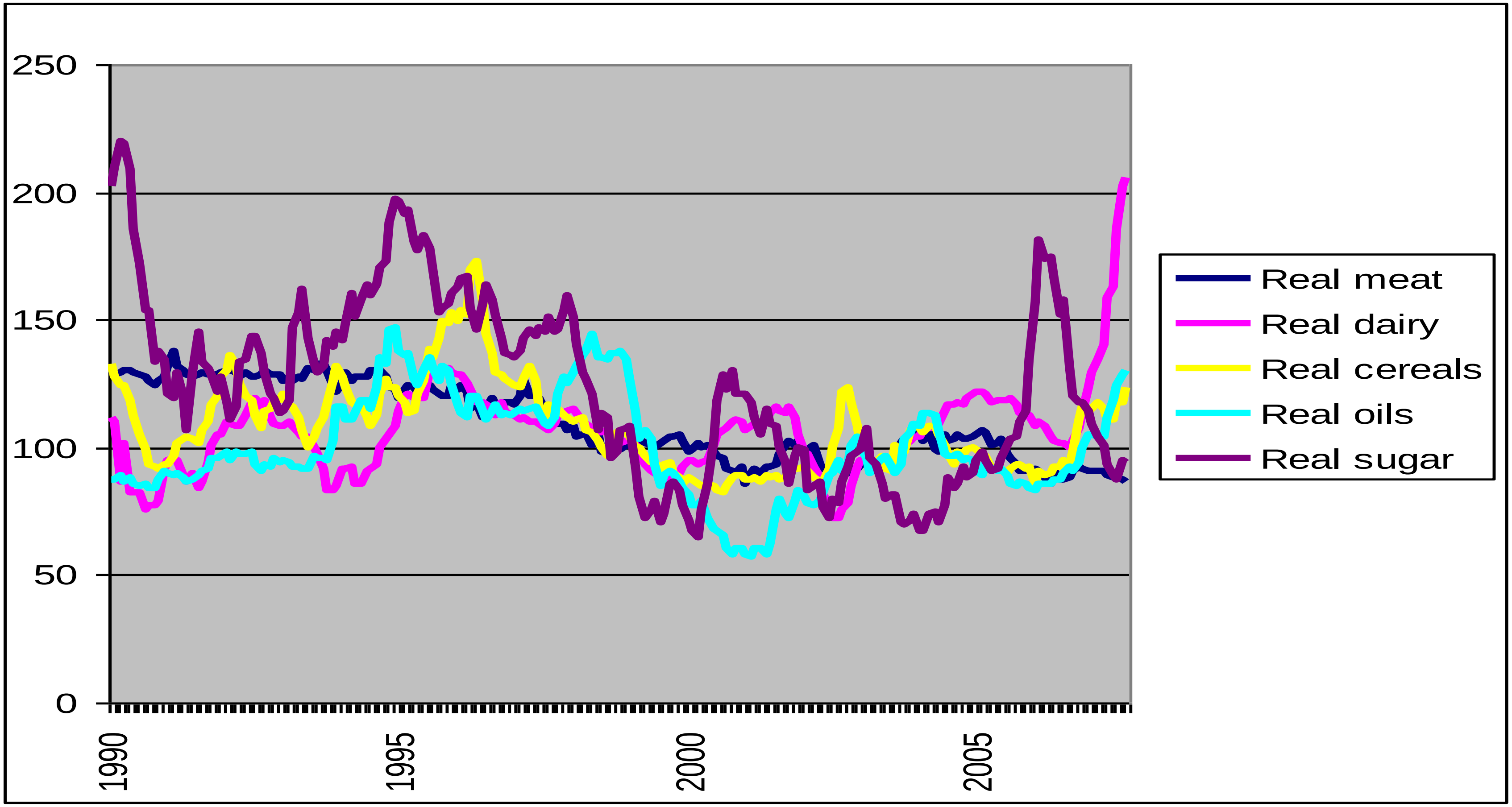
Africa: Commodity dependence is still large

	Share of 4 most important commodities in agricultural exports			Share of 4 most important commodities in merchandise exports		
	1982/84	1992/94	2002/04	1982/84	1992/94	2002/04
Angola	91.4	100.0	53.8	4.6	0.1	0.0
Burundi	94.8	88.5	93.7	91.5	78.4	67.1
Cape Verde	0.0	2.2	85.5	0.0	0.2	2.0
Cent Afr Rep	81.8	94.8	92.8	46.7	25.1	12.0
Chad	98.6	93.5	95.5	na	66.2	46.6
Comoros	97.7	99.5	99.9	81.7	75.4	na
Benin	39.9	93.4	85.6	21.3	25.9	37.4
Equatorial Guinea	100.0	100.0	100.0	97.0	6.4	0.2
Djibouti	64.3	65.7	86.5	29.7	13.3	16.0
Gambia	99.5	77.8	88.9	60.2	29.5	na
Guinea	80.2	83.0	54.3	4.6	6.2	2.7
Lesotho	55.7	79.5	87.5	32.9	7.9	1.2
Liberia	97.3	97.4	99.2	23.4	4.5	37.1
Madagascar	83.6	69.5	83.7	70.5	31.7	24.3
Malawi	87.5	92.0	87.8	83.8	81.9	78.4
Mali	91.7	95.2	92.7	na	63.9	31.5
Mozambique	62.0	75.5	62.6	30.9	25.0	7.7
Ethiopia	80.8	78.7	73.9	73.6	72.8	56.1
Eritrea	0.0	43.2	83.0	na	4.1	2.2
Niger	50.2	52.8	48.3	11.7	7.7	10.6
Guinea-Bisau	50.7	97.6	99.5	34.3	70.9	82.3
Rwanda	95.1	90.8	92.3	58.7	64.7	48.0
Sao Tome and Principe	98.3	99.9	97.7	na	72.2	80.7
Senegal	84.0	78.4	54.2	23.9	12.5	7.0
Sierra Leone	84.5	66.2	84.8	22.9	6.7	12.6
Sudan	70.9	65.8	73.0	65.0	70.0	13.2
Tanzania	70.4	74.9	47.7	60.8	51.3	17.0
Togo	91.0	79.0	61.7	31.3	32.5	16.6
Uganda	na	74.6	67.3	na	64.6	32.7
Burkina Faso	66.9	84.4	84.6	59.8	98.7	72.6
Congo, Dem Rep of	84.4	89.9	79.1	9.3	6.1	2.5
Zambia	80.4	44.6	67.9	0.8	1.8	10.2

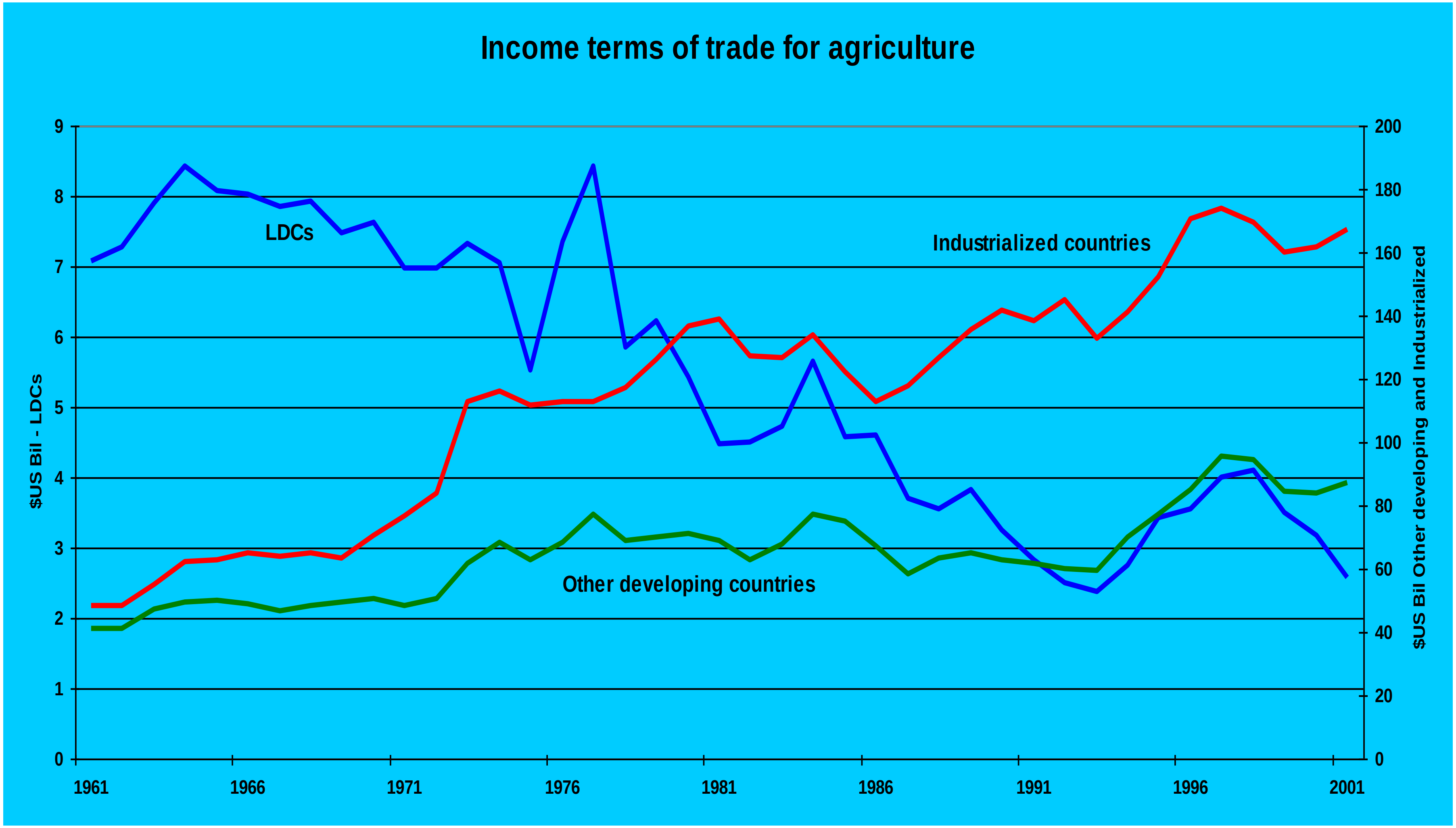
World context: Real international agricultural commodity prices have declined in past 40 years.



Despite recent spikes, real prices of basic foods are lower in 2007 than at their previous peaks in the early-mid 1990s



However, despite same international prices for all countries, the income terms of trade for agriculture (purchasing power of agricultural exports) have evolved differently for developed, developing and least developed countries. Why?

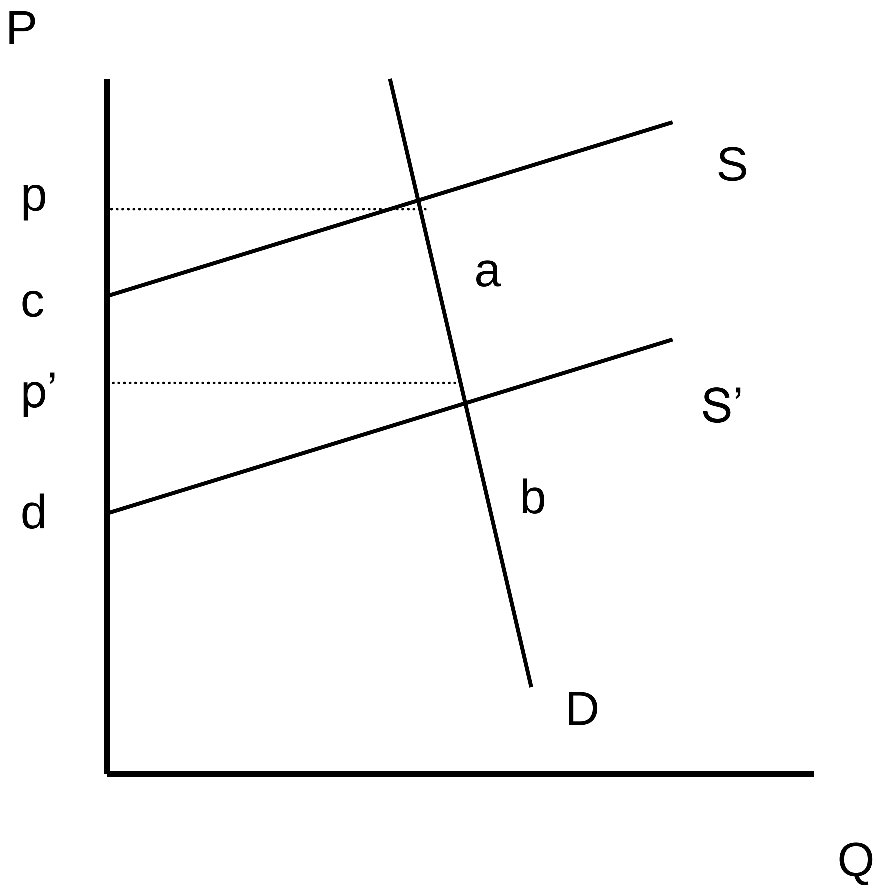


What determines long term commodity prices?

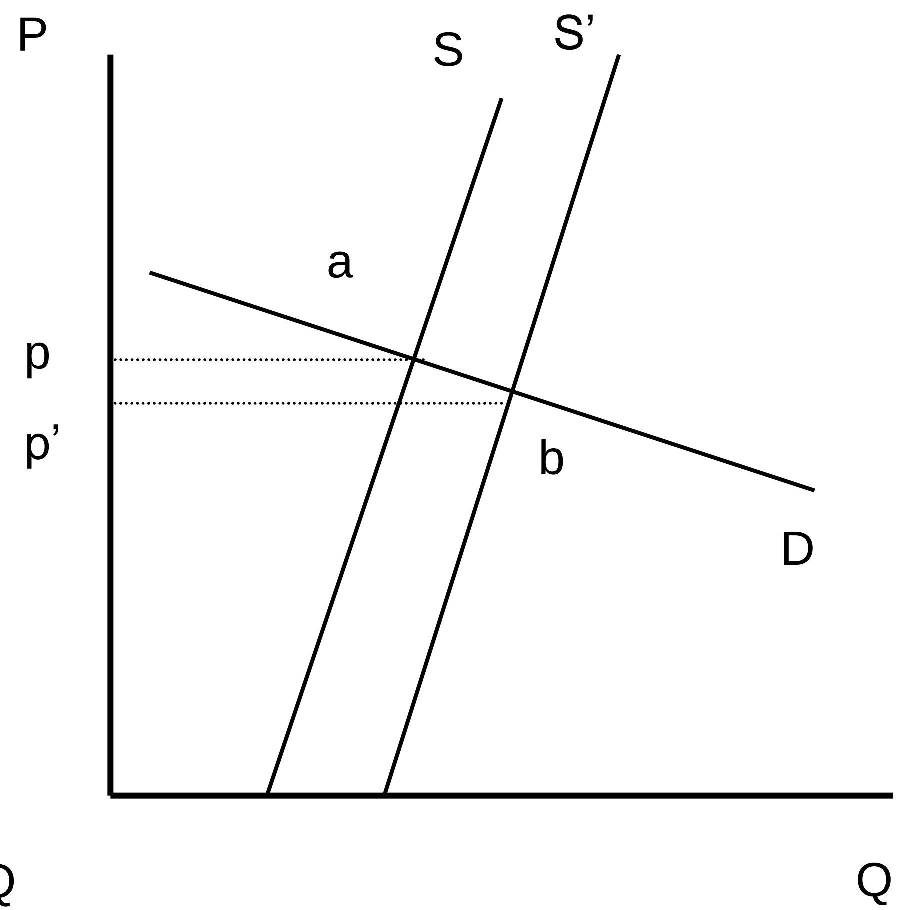
- Supply of agricultural commodities highly elastic at low wages
- Demand for agricultural commodities quite inelastic
- Opposite case for non-agriculture
- Implication: Differential productivity gains can alter terms of trade between agriculture and non-agriculture

How do productivity gains affect agriculture and non-agriculture?

- Productivity affects agriculture differently than non-agriculture



Panel A. Agricultural Commodity Sector

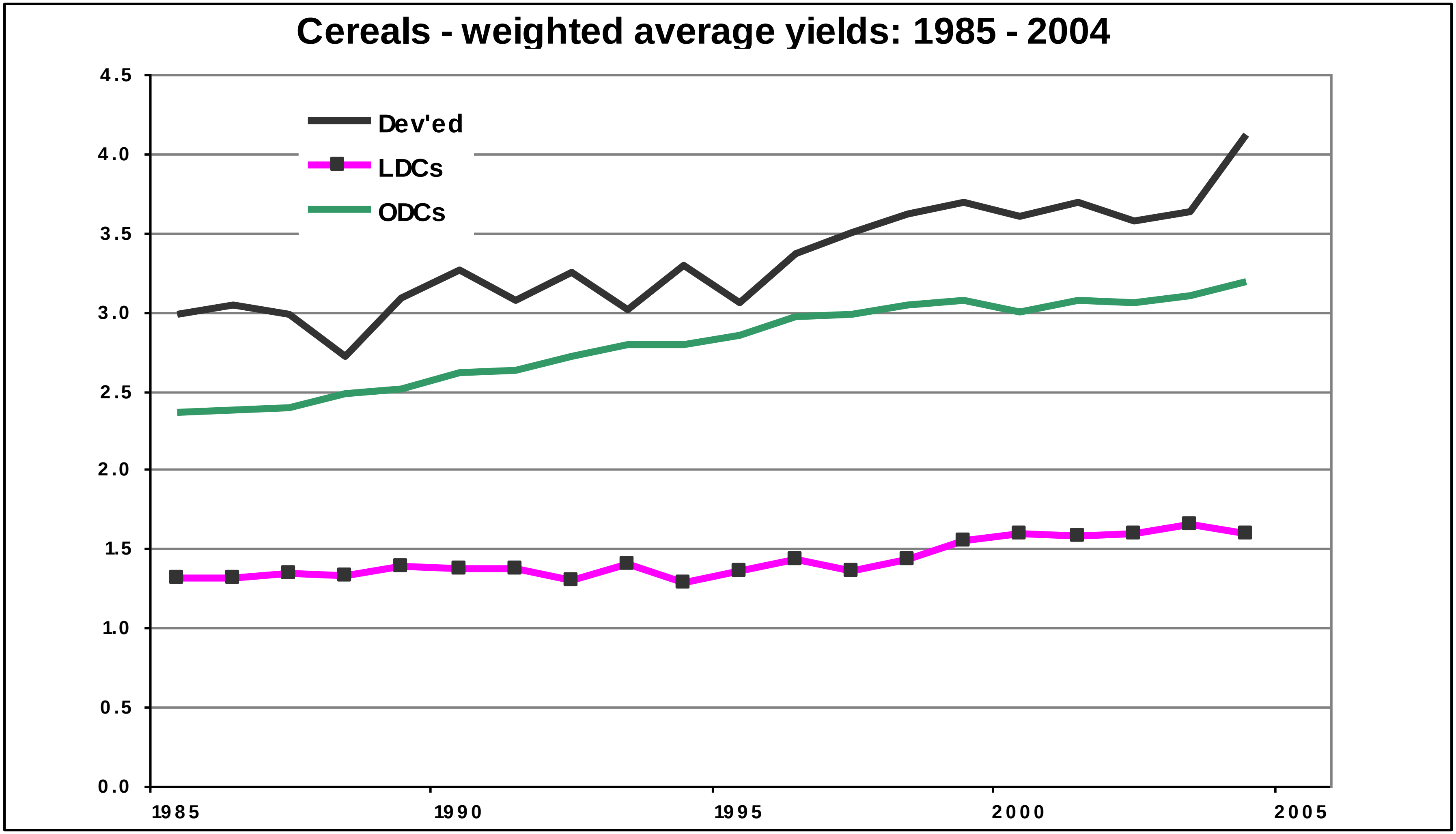


Panel B. Non-agricultural sector

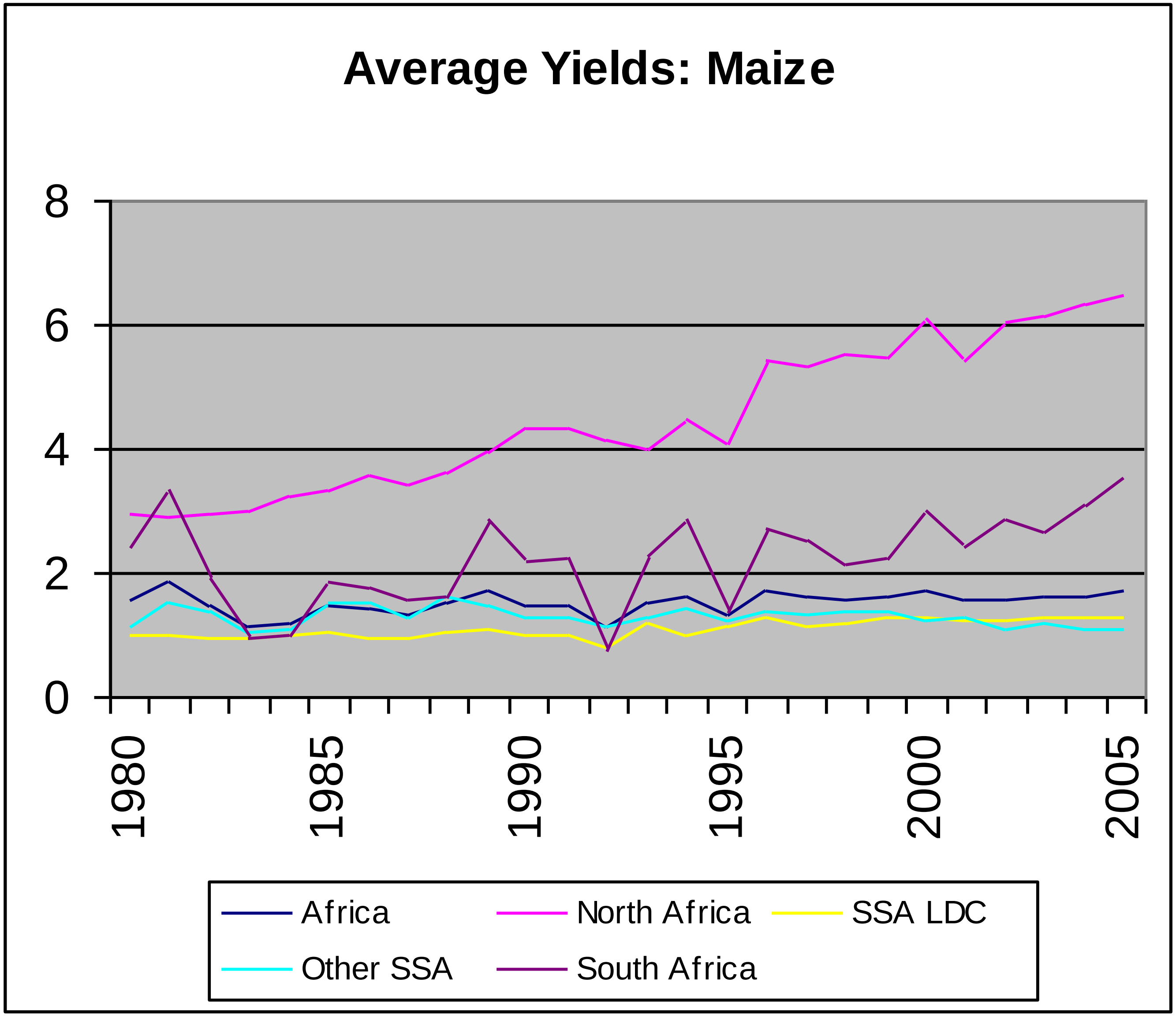
Declining terms of trade for agricultural commodities due to faster rates of total factor productivity growth for agricultural than non-agricultural products

- Rate of growth of TFP has been faster in agriculture than in non-agriculture
- The rate of growth of TFP in agriculture seems to be higher than that of manufacturing.
- “Globalization” of agricultural research, has contributed to faster TFP growth in agriculture,
- Incidence of productivity advances largely on consumers (through lower prices) and little to producers.

However, productivity growth in agriculture has been smaller in LDCs, compared to developed and other developing countries: Cereals (similar for other commodities)



Yields have stagnated in most Africa for maize (similar for all other agricultural products)



Medium term food projections for Africa. Focus on net trade

Divide Africa in three regions

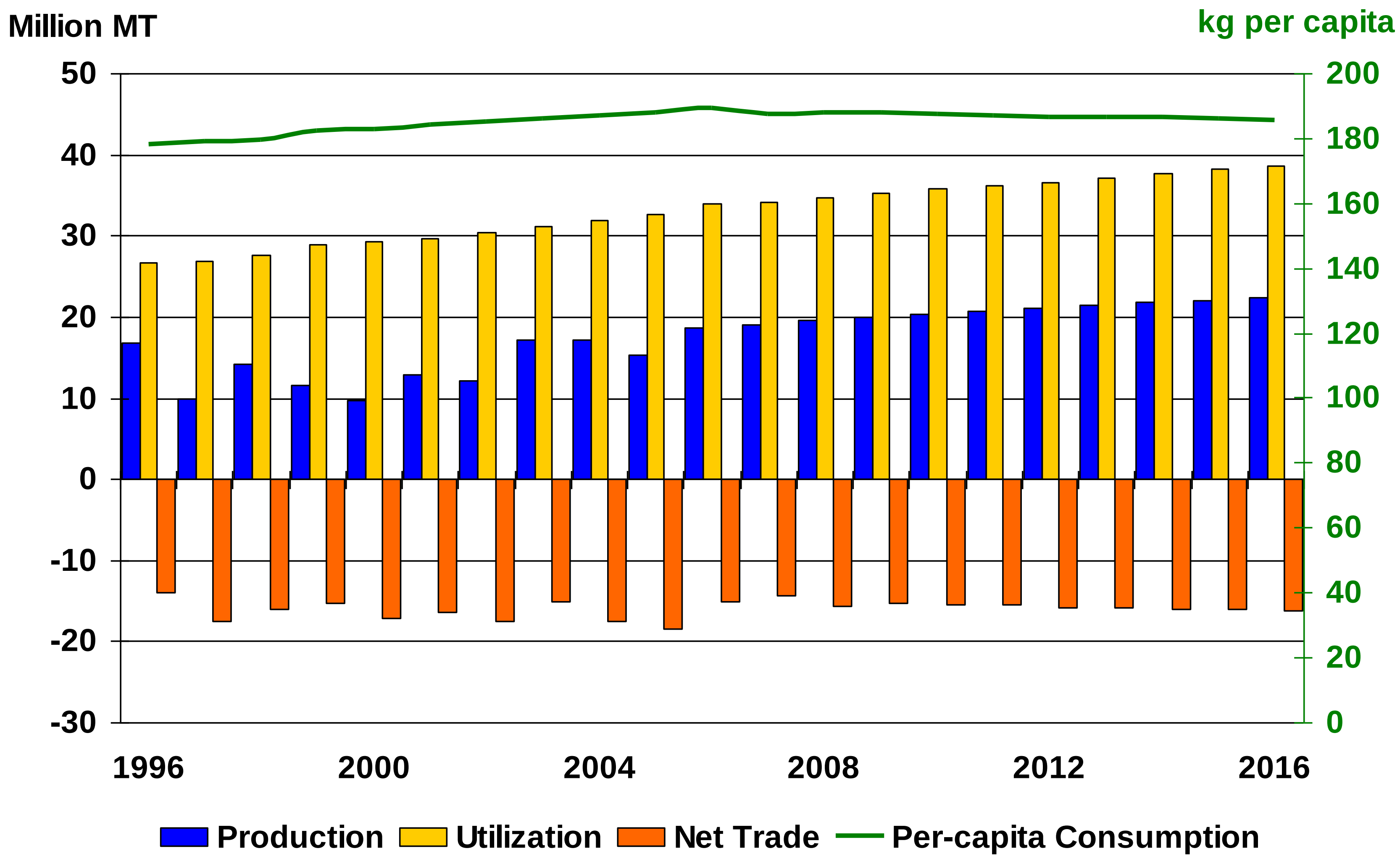
- North Africa
- Sub-Sahara LDC Africa
- Sub-Sahara other (non-LDC)

Major result is growing net imports of foods

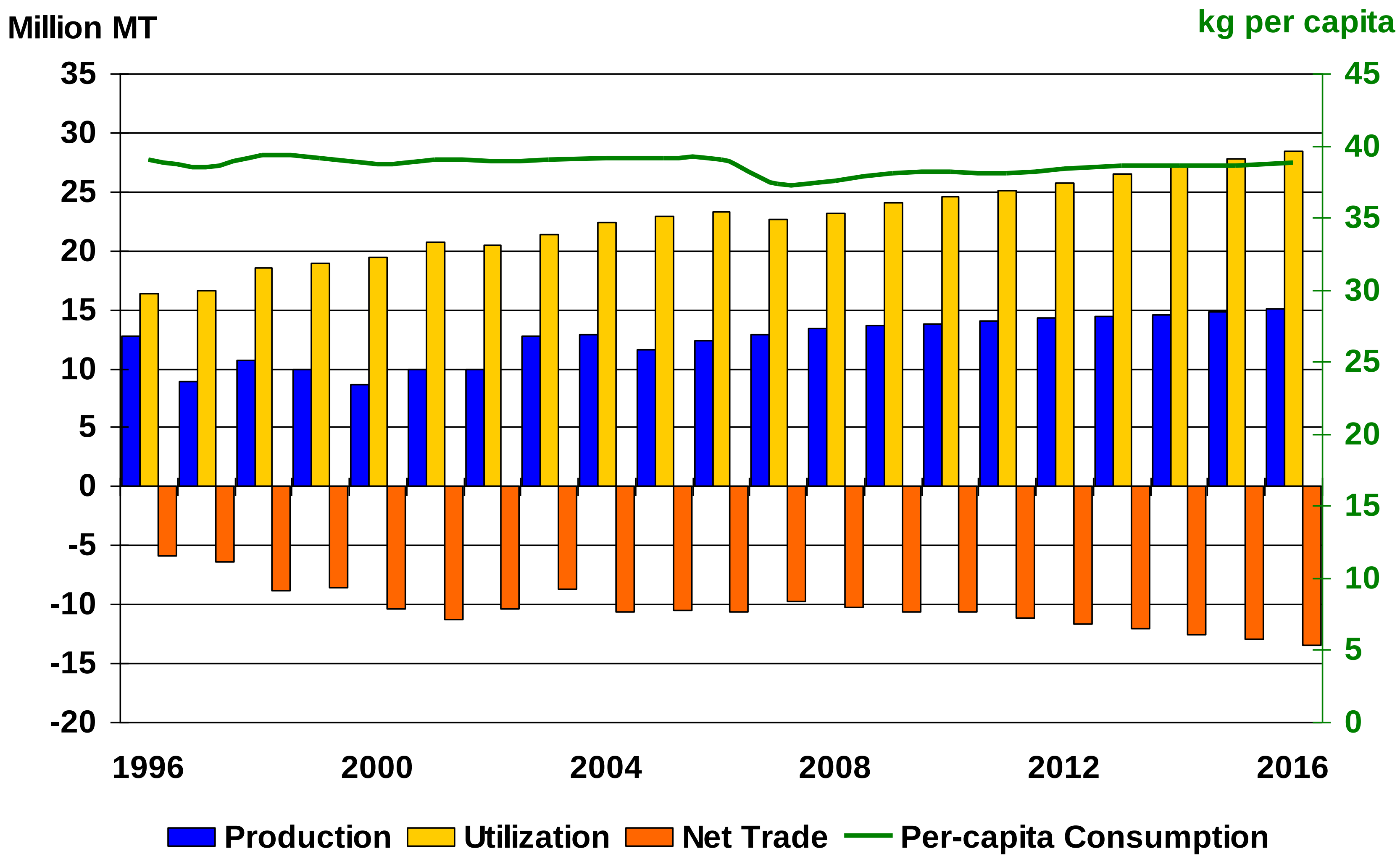
North Africa

- Algeria
- Egypt
- Other North Africa
  (Libya, Tunisia, Morocco)

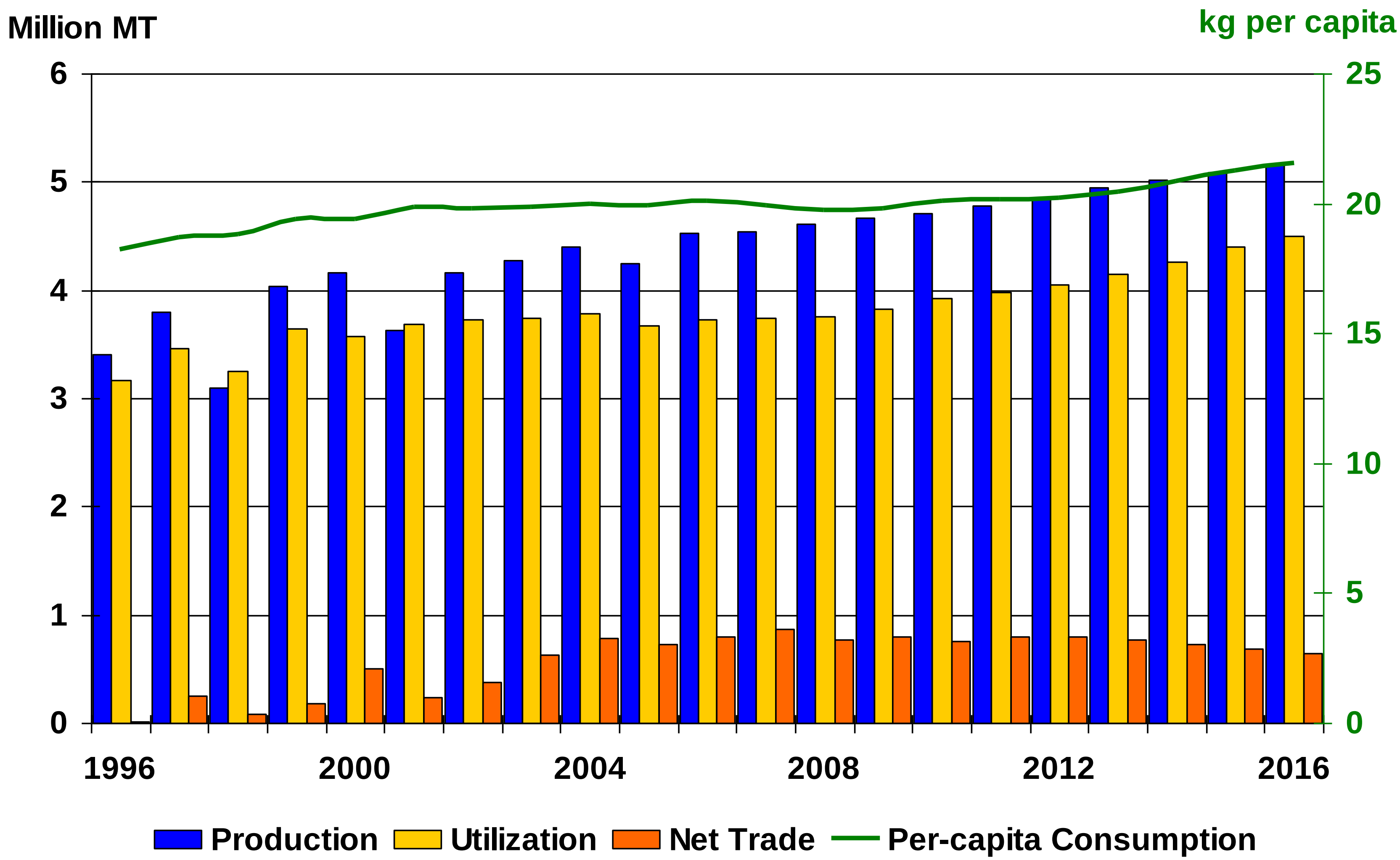
Wheat Production, Utilization, Net-Trade and Per-capita Food Use of North African Countries



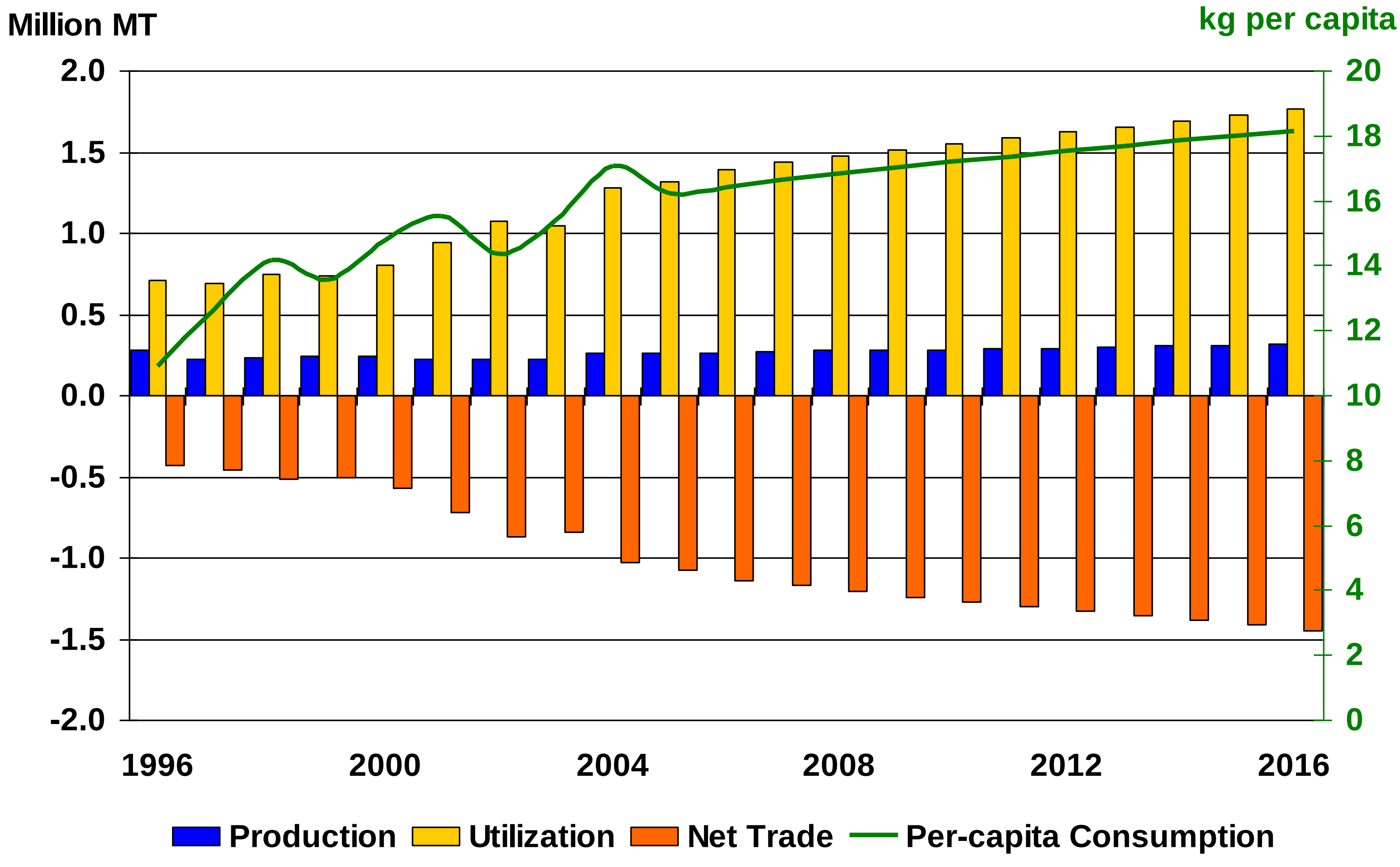
Coarse Grain Production, Utilization, Net-Trade and Per-capita Food Use of North African Countries



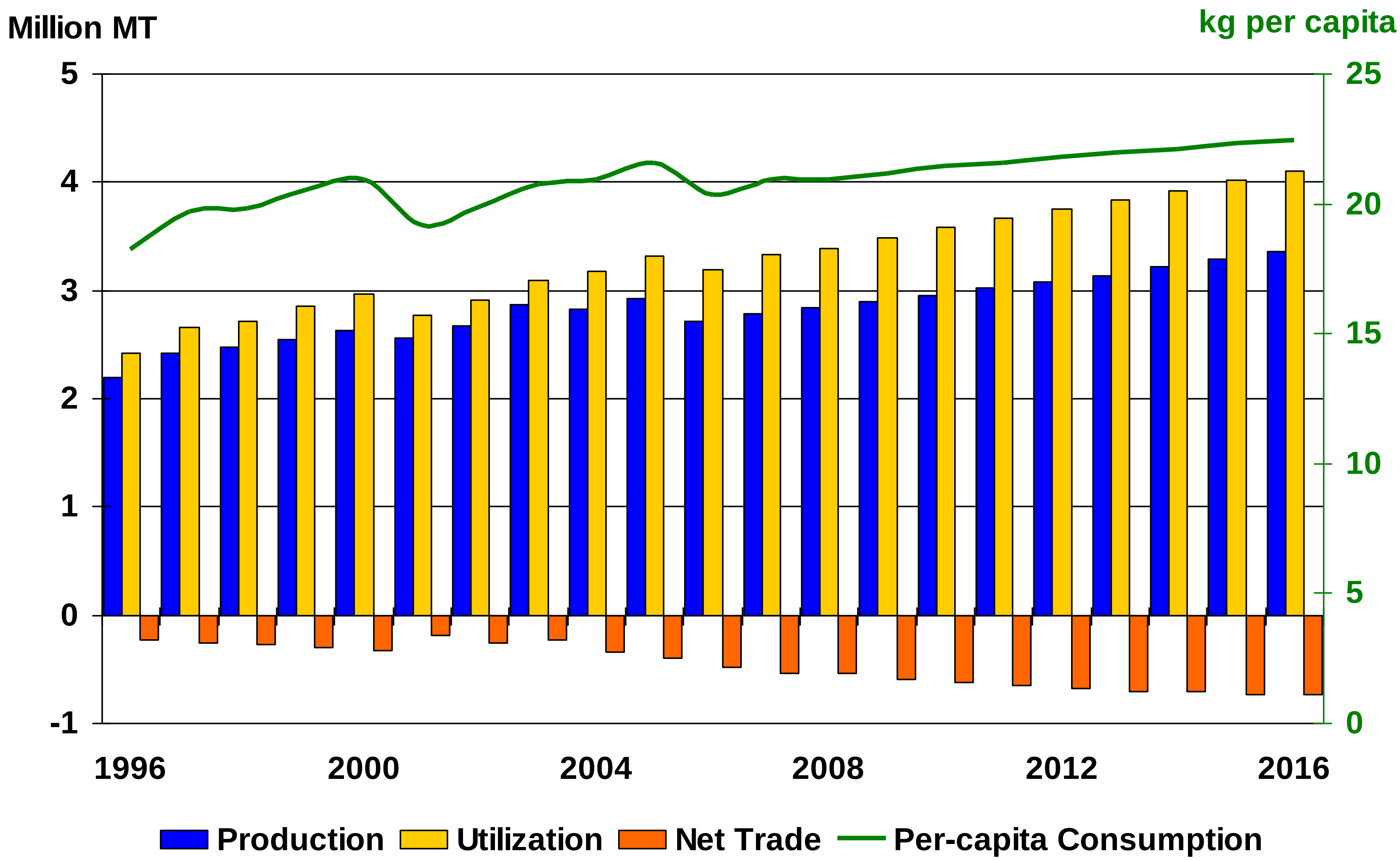
Rice Production, Utilization, Net-Trade and Per-capita Food Use of North African Countries



Oilseeds Production, Utilization, Net-Trade and Per-capita Vegetable Oil Use of North African Countries



Meat Production, Utilization, Net-Trade and Per-capita Food Use of North African Countries



Sub-Sahara Africa - LDC

- **East Africa**

(Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Madagascar, Malawi, Rwanda, Somalia, Sudan, Uganda)

- **Southern Africa**

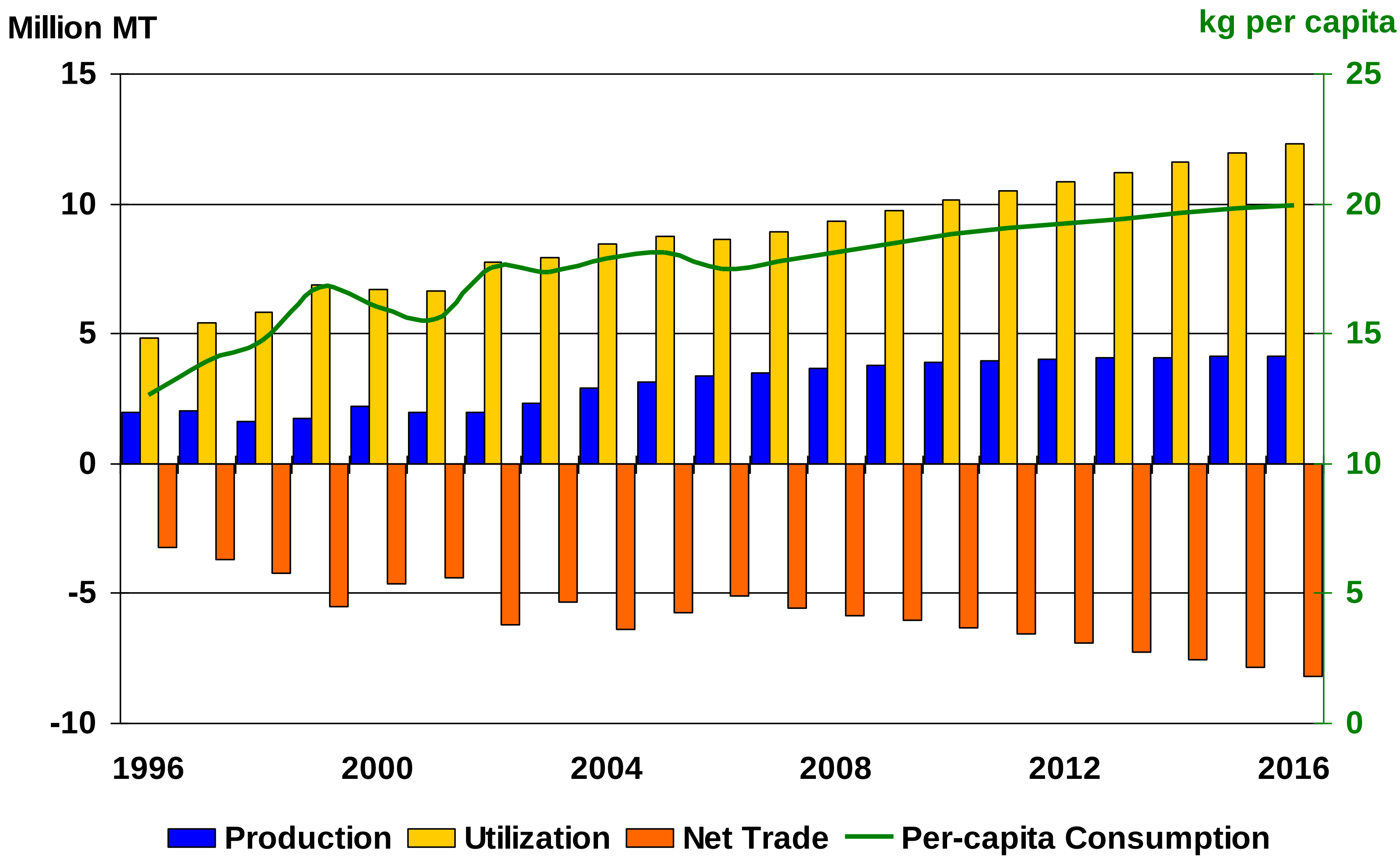
(Angola, Central African Republic, Chad, Dem Republic of Congo, Equatorial Guinea, Lesotho, Sao Tome and Principe)

- **West Africa**

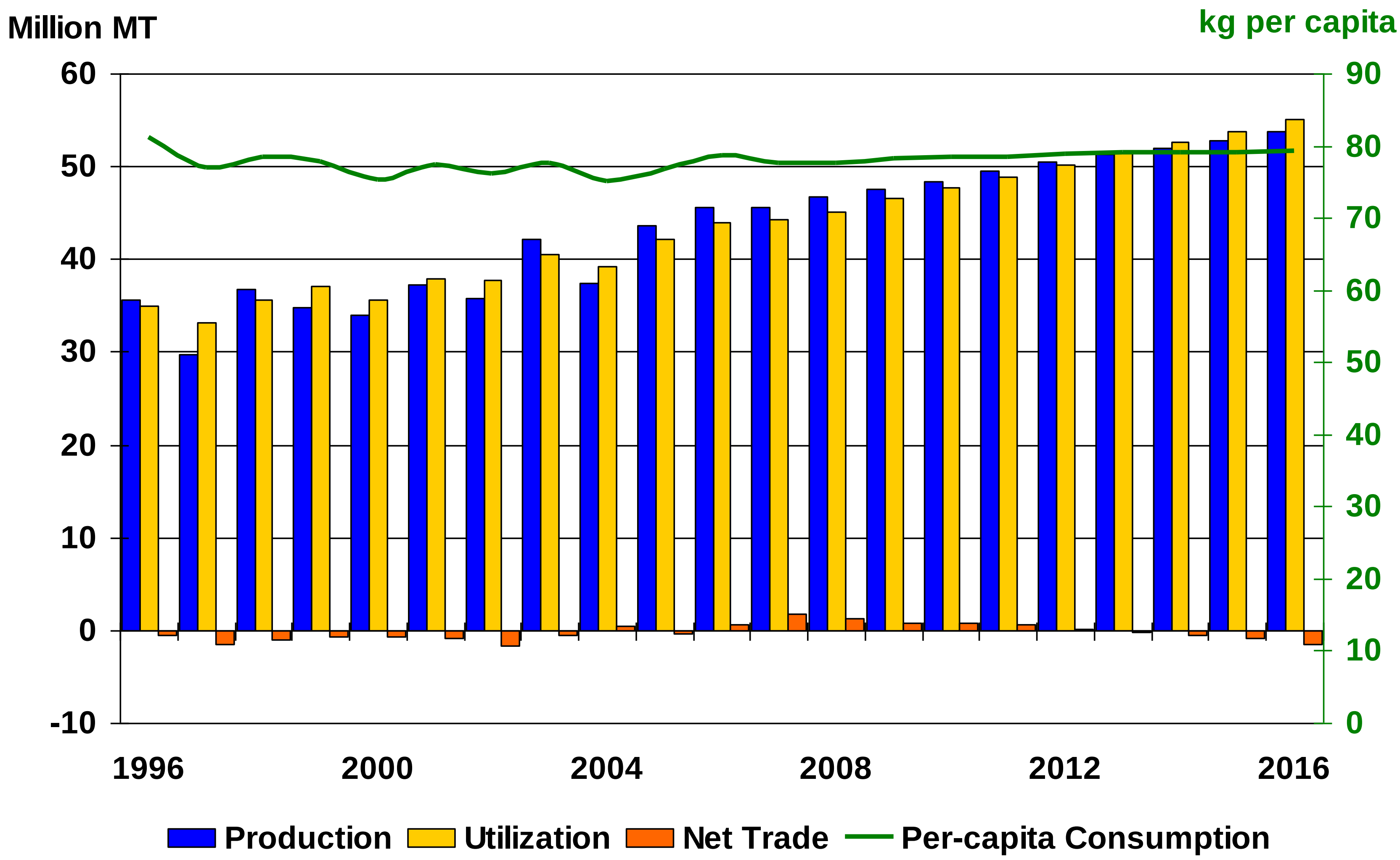
(Benin, Burkina Faso, Cape Verde, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone, Togo)

- **Mozambique**
- **Tanzania**
- **Zambia**

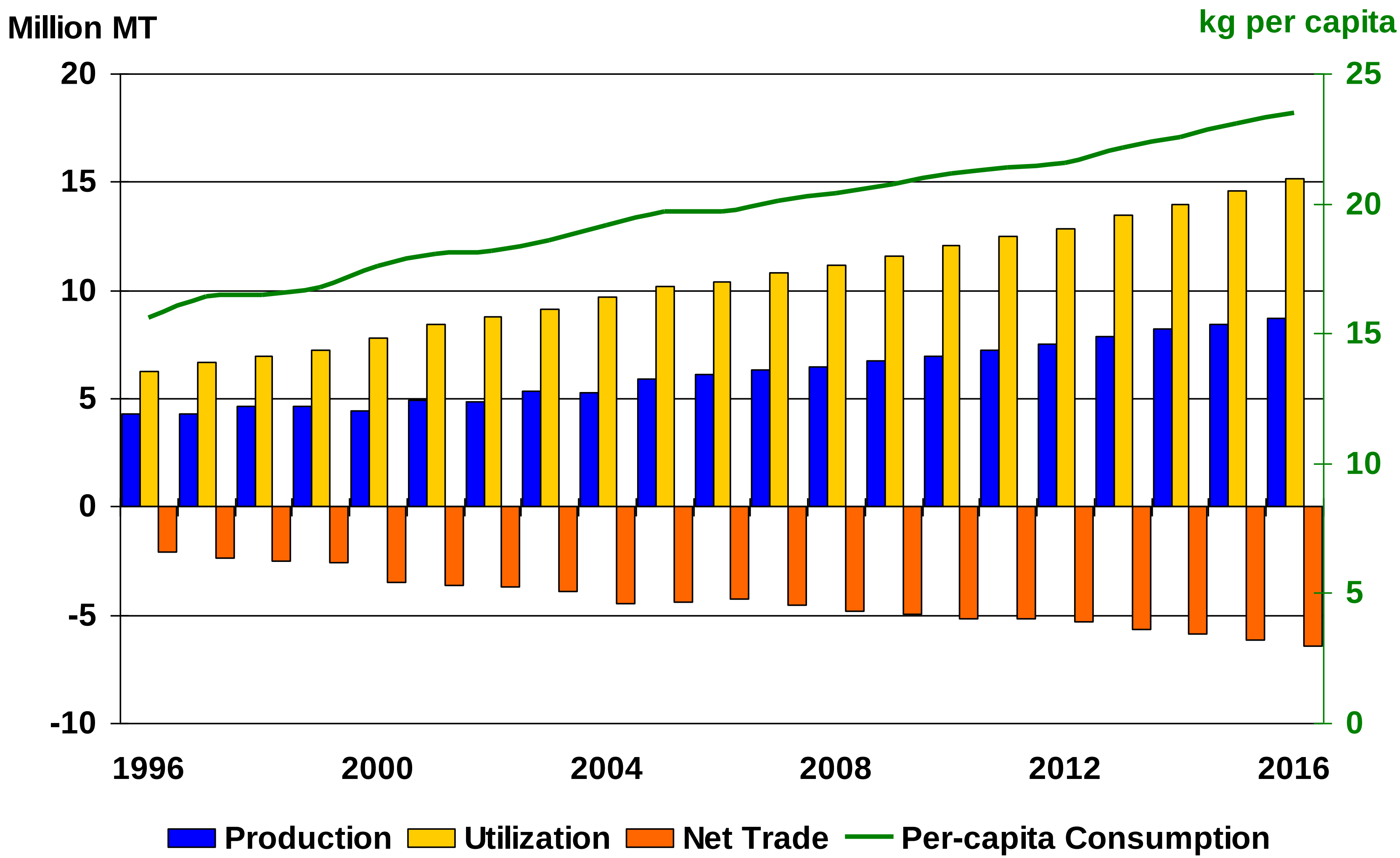
Wheat Production, Utilization, Net-Trade and Per-capita Food Use of African LDC



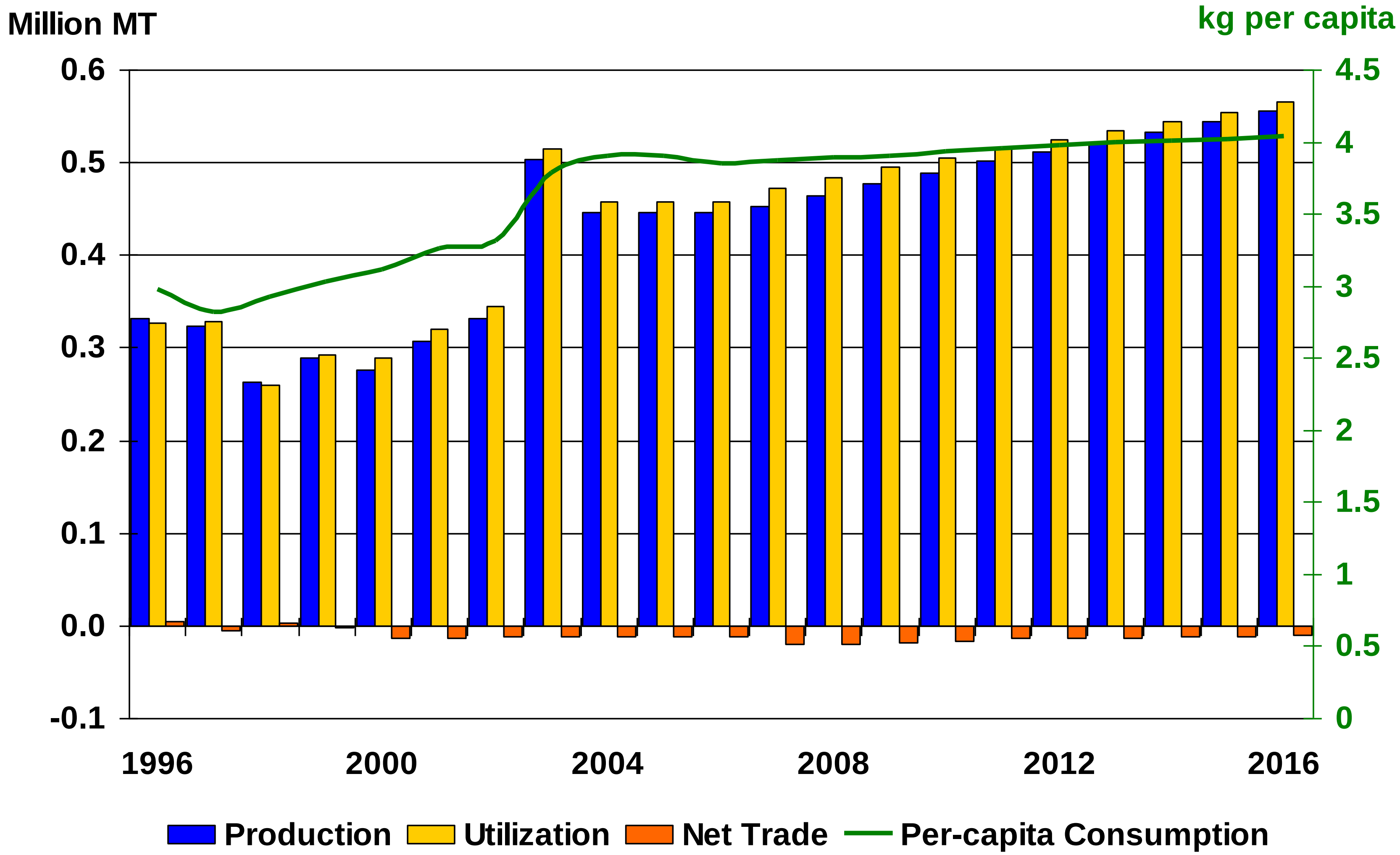
Course Grain Production, Utilization, Net-Trade and Per-capita Food Use of African LDC



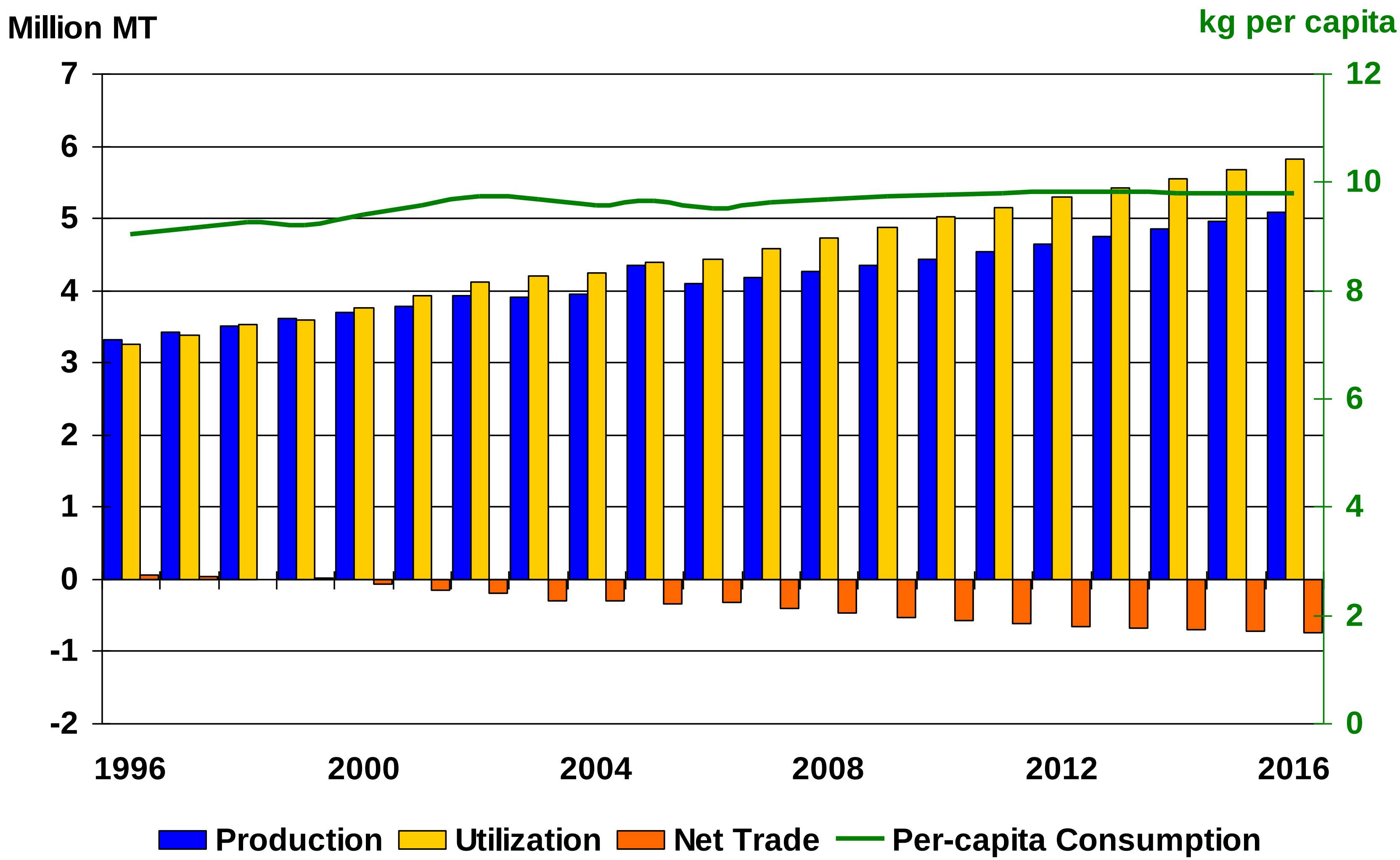
Rice Production, Utilization, Net-Trade and Per-capita Food Use of African LDC



Oilseeds Production, Utilization, Net-Trade and Per-capita Vegetable Oil Use of African LDC



Meat Production, Utilization, Net-Trade and Per-capita Food Use of African LDC



Other Sub-Sahara Africa

- **Other west Africa**

(Côte d'Ivoire, Saint Helena)

- **Other east Africa**

(British Indian Ocean Territories, Kenya,, Mauritius, Mayotte, Réunion, Seychelles, Zimbabwe)

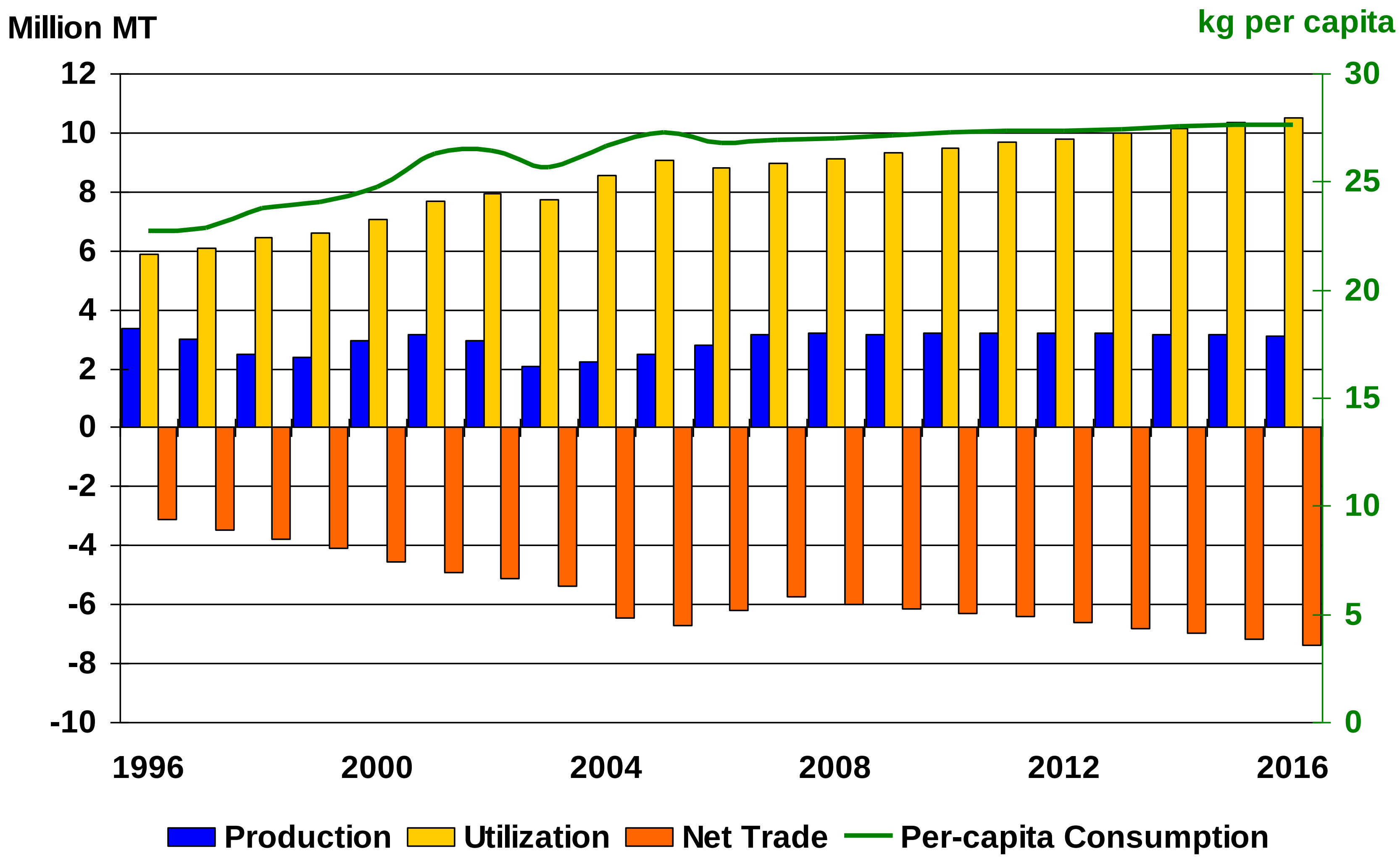
- **Other south Africa**

(Botswana, Cameroon, Gabon, Namibia,

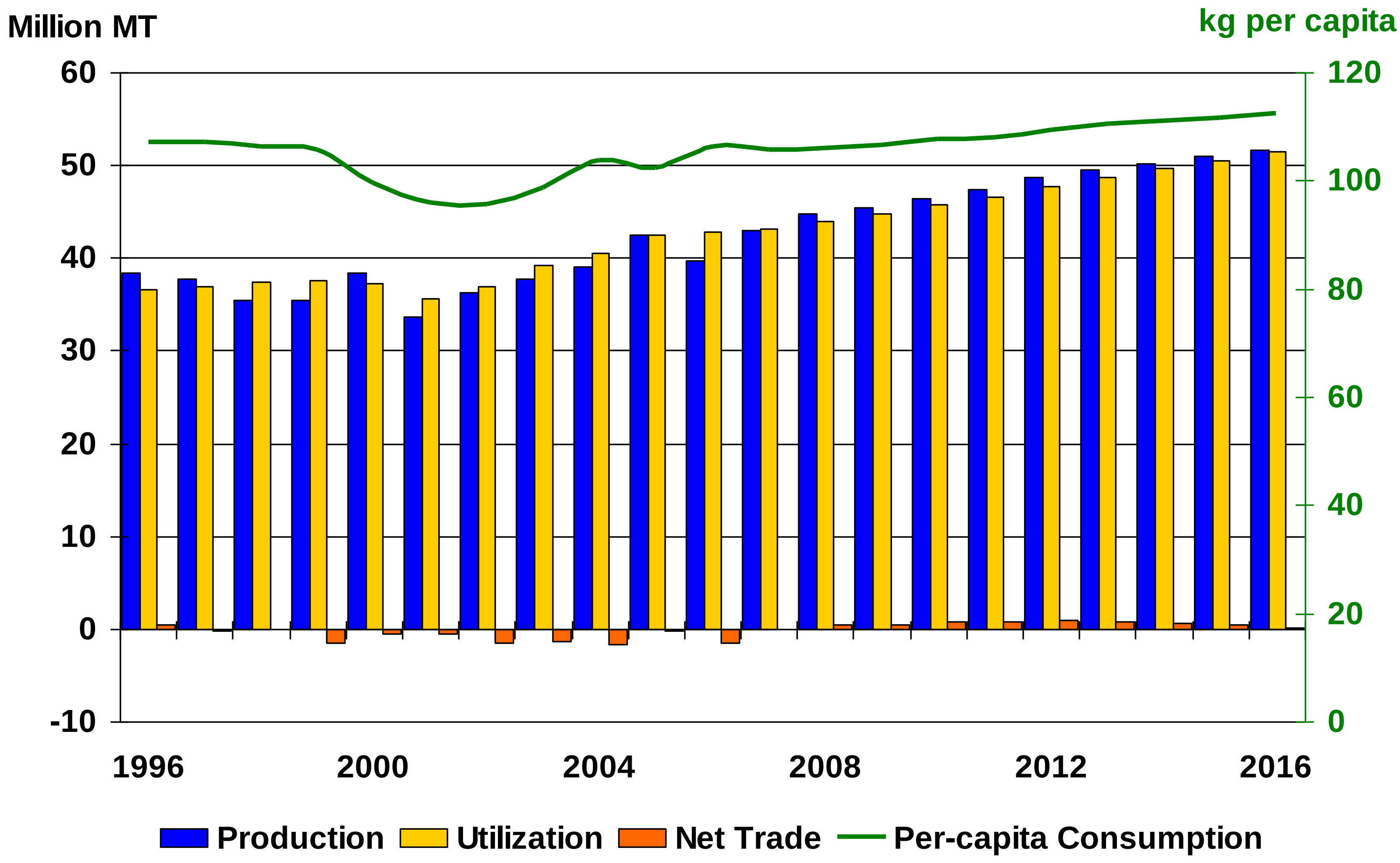
Republic of Congo, Swaziland)

- **Nigeria**
- **Ghana**
- **South Africa**

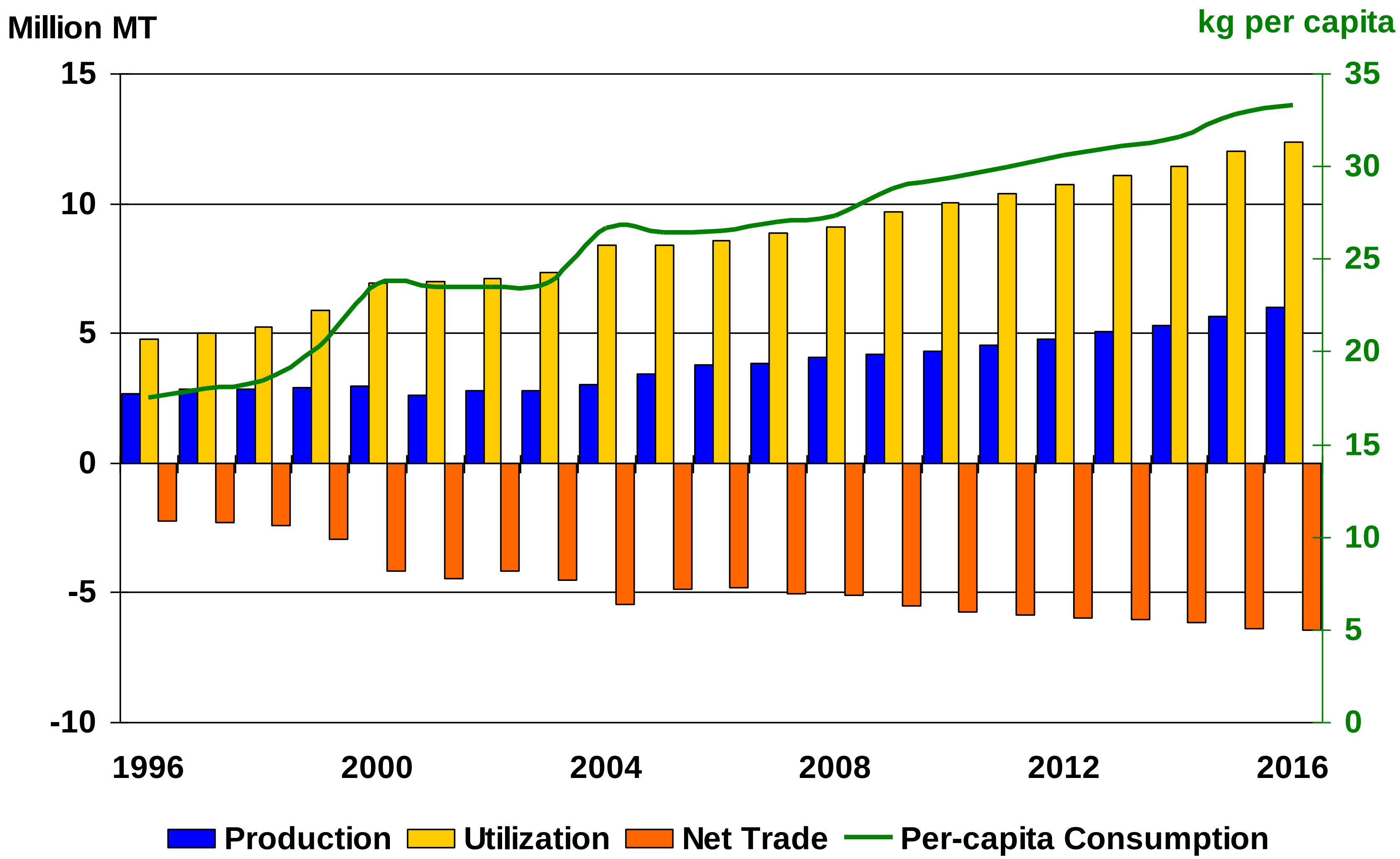
Wheat Production, Utilization, Net-Trade and Per-capita Food Use of Other Sub-Sahara Countries



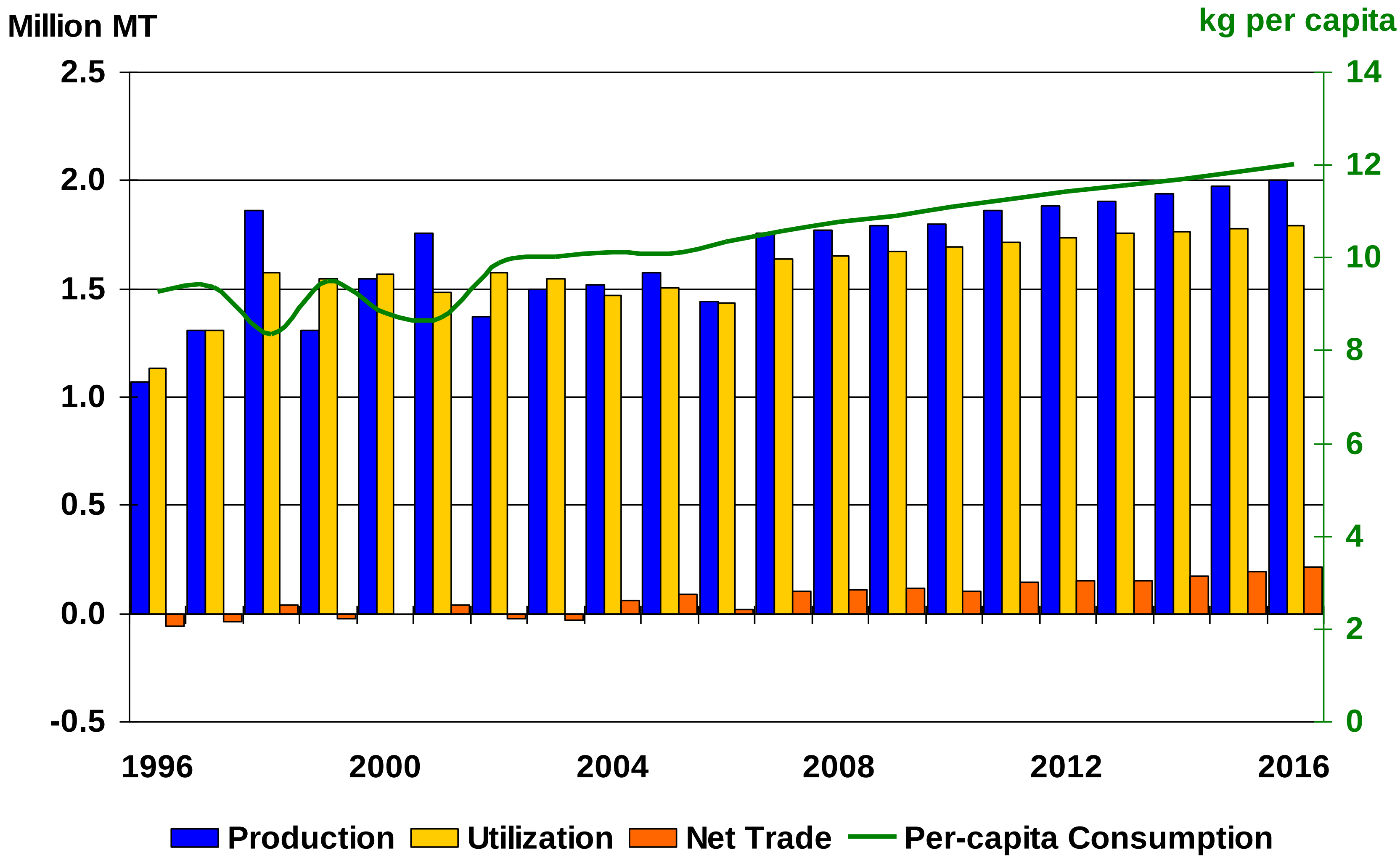
Coarse Grain Production, Utilization, Net-Trade and Per-capita Food Use of Other Sub-Sahara Countries



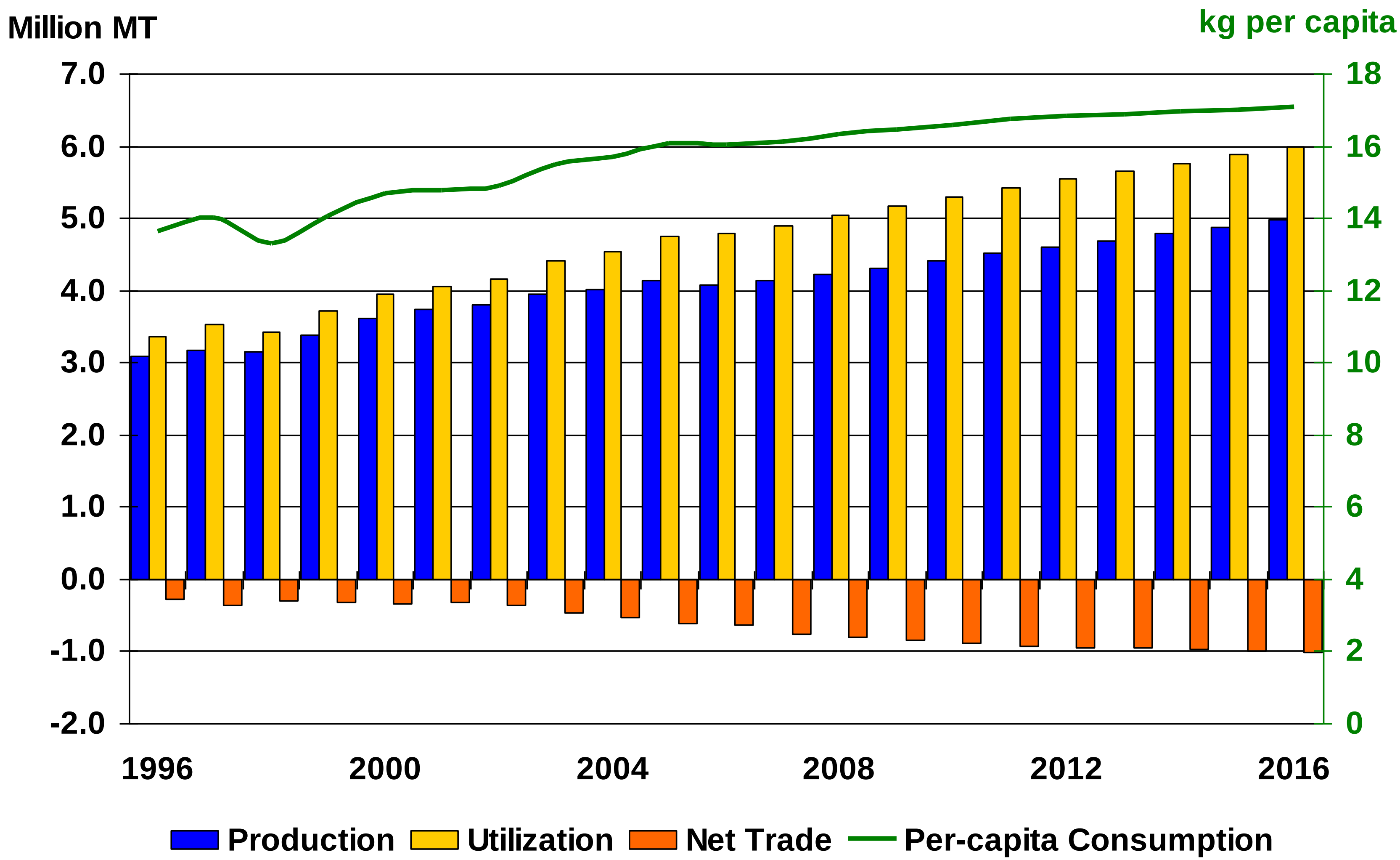
Rice Production, Utilization, Net-Trade and Per-capita Food Use of Other Sub-Sahara Countries



Oilseeds Production, Utilization, Net-Trade and Per-capita Vegetable Oil Use of Other Sub-Sahara Countries



Meat Production, Utilization, Net-Trade and Per-capita Food Use of Other Sub-Sahara Countries



Is intra-Africa trade a good prospect? Currently intra-African trade of major food groups is small: 2002-05 averages

Products	Africa's export to: World	Africa's export to: Africa	% of Intra-trade	Africa's import to: World	Africa's import to: Africa	% of Intra-trade
	(……..million US$………)			(……..million US$………)		
Cereals	868	558	64.3	7477	451	6.0
Oils and Fats	622	190	30.5	2176	213	9.8
Oilseeds	282	75	26.6	374	63	16.9
Dairy Products	197	115	58.3	1437	112	7.8
Meat and Meat Products	245	122	49.8	871	55	6.4
Sugar [1/]	993	313	31.5	1274	233	18.3
Vegetables and Fruits [2/]	3557	266	7.5	1294	278	21.5
Beverages	844	271	32.1	502	134	26.7
Live Animals	315	163	51.6	150	39	26.0
Coffee, Cocoa, Tea	4363	321	7.4	717	304	42.5
Spices	237	18	7.6	84	23	27.2
Other food products	4380	869	19.8	3743	897	24.0
Total	16904	3280	19.4	20099	2803	13.9

Notes:

1/ Includes sugar confectionery; 2/ Includes roots and tubers

Source: COMTRADE

Regional Economic Agreements (REAs) have not increased the share of Intra-African trade in agriculture (shares of exports/imports of group with Africa)

	1996-99	2002-05
Agricultural Exports		
AMU	23.0	27.1
COMESA	44.5	34.7
ECOWAS	25.1	24.5
ECCAS	56.3	27.2
SADC	30.7	27.6
EAC	41.7	37.4
CEN-SAD	27.9	30.5
Africa	29.6	27.4
Agricultural Import		
AMU	32.2	24.3
COMESA	28.2	23.8
ECOWAS	17.4	16.3
ECCAS	21.8	16.7
SADC	28.2	22.3
EAC	25.6	14.8
CEN-SAD	29.2	21.6
Africa	26.0	20.6

Source: COMTRADE

Agricultural average applied tariffs in Africa are at world average levels and contain a lot of “water” (Agrifood tariffs 2000-2)

Countries	Simple Average		Weighted average		Binding overhang	Tariff lines	
	Applied %	Bound %	Applied %	Bound %	% of bound rate	Lines bound zero	Total lines
All industrial countries	24.1	47.7	14.1	24.9	43.4	1,652	5695
East Asia & Pacific average	17	48.6	39.1	59.4	34.2	112	4466
South Asia Average	23	100.9	22.3	132.4	83.2	10	3129
Europe & Central Asia	13.9	29.1	15.8	51.1	69.1	412	6429
Latin America & Caribbean	13.4	59.2	18.4	51.8	64.5	55	18726
Middle E & N Africa	31	61	22.4	50	55.2	6	4039
Sub-Saharan Afr	17.5	74.6	16.2	73.5	78.0	78	17117
High income: non OECD	14.4	57.8	61.8	79.6	22.4	61	6267
All developing	16.3	61.7	24.4	60	59.3	723	59610
Upper middle inc	13.7	56.5	23.1	54.1	57.3	377	13541
Lower middle inc	18	51.4	14.4	41.8	65.6	230	19043
Low income	17	75.7	15.5	95.6	83.8	55	20759
World	17	60.5	18	38.2	52.9	2,375	65305

Average applied agricultural tariffs in Africa are not too high and not too variable across origins or across products (reference year 2001)

	cereals	rice	oilseeds	fr & veg	sugar	plant based fibers	meats and live animals	dairy products	vegetable oils and fats	beverages and tobacco	other agric. primary	other food products
ROECD	5.3	11.9	0.8	11.2	7.5	6.0	10.5	9.1	9.9	62.7	13.8	16.0
ANZ	6.3	15.4	9.0	2.7	54.3	2.9	12.3	19.2	7.0	28.8	4.8	15.5
NAM	9.3	8.8	3.9	15.6	38.4	2.5	14.7	24.1	20.2	24.1	11.5	21.8
CHIND	12.4	21.1	9.9	12.3	25.7	5.1	10.3	11.5	14.7	32.3	25.7	24.3
ARGBRA	14.7	7.4	5.0	8.5	19.6	8.7	12.8	11.1	8.0	16.4	36.9	17.2
RLAM	3.4	5.2	12.6	40.1	16.9	8.8	9.5	24.9	11.9	19.7	13.5	12.5
EU27	19.1	11.7	13.9	23.3	22.5	2.3	24.8	14.4	12.9	35.1	19.3	23.2
URS	30.5	2.5	16.2	7.4	5.2	1.5	3.6	11.3	18.4	34.4	17.1	24.3
NEAST	24.0	11.3	16.0	20.3	23.2	1.7	31.5	15.7	25.8	37.5	16.1	19.4
RASIA	8.8	32.6	6.9	15.0	25.8	3.8	24.1	14.0	21.6	50.9	17.6	21.3
AFRICA	4.7	6.5	16.8	14.1	12.2	3.2	7.4	11.5	6.0	27.8	7.8	12.4
ROW	26.4	17.9	0.7	14.7	7.2	2.4	17.1	21.7	5.6	55.1	28.6	10.6
AVERAGE	**13.7**	**12.8**	**9.3**	**15.4**	**21.5**	**4.1**	**14.9**	**15.7**	**13.5**	**35.4**	**17.7**	**18.2**

Post 1980 developments. Despite liberalization and structural adjustment programs, production structure has not changed much in commodity dependent developing economies (mostly LDCs)

	Ratio of the value of production of exportables to the total value of agricultural production (percent)			Ratio of the value of production of importables to the total value of agricultural production (percent)		
	1980-82	1989-91	2001-03	1980-82	1989-91	2001-03
Africa (24 ctries)	23.1	22.1	21.8	24.7	25.7	25.0
Latin Am. Carib (11 ctries	48.1	52.8	48.0	45.0	43.8	41.8
Oceania (3 ctries)	45.8	39.3	37.1	8.4	9.5	12.6

Main reason for African agricultural stagnation. Rural smallholders are constrained to use inputs and capital very inefficiently. Excess labor, low use of inputs and capital

Tanzania rural household survey results (2003-4)						
	Kilimanjaro			Ruvuma		
	All	Poor	Non Poor	All	Poor	Non Poor
Marginal product of land divided by the price (value) of land	1.5	1.9	1.2	0.8	0.7	0.9
Marginal product of labour divided by the market value of labour	0.4	0.6	0.3	0.3	0.2	0.3
Marginal product of inputs divided by the market price of inputs	13.9	14.0	5.1	5.1	5.5	4.5
Marginal product of productive capital divided by the cost of capital	5.6	6.2	5.3	11.1	19.8	5.4

Source: Sarris, Savastano, Christiaensen, 2007

Reasons for factor market distortions and low productivity in African agriculture

- Institutional lack of productive credit and capital (due to declines in interlinkages between factor markets in last two decades)
- Lack of adequate non-farm rural income opportunities
- Lack of insurance and safety nets, necessitating large rural household investments in self insurance and diversion from productive investments
- Lack of appropriate price signals (low transmission from world markets, and very high marketing margins due to low marketed volumes and inadequate infrastructure)

Decrease in agricultural marketing margins much more effective in growth and poverty alleviation than trade liberalization

Tanzania. Simulated changes in household welfare from changes in specific conditions or policies (CGE model results)

(percentage change from base)						
	Rural Poor	**Rural NP Uned**	**Rural NP Educ**	**Urban Poor**	**Urban NP Uned**	**Urban NP Educ**
10% decrease in all agric marketing margins	5.07	3.69	7.43	9.35	7.86	7.03
50% import tariff cut	-0.09	-0.16	1.47	2.23	1.72	1.36
10% increase in prices of export crops	0.41	0.16	1.31	2.32	1.52	0.93
10% increase in prices of all agric imports	0.06	-0.10	0.10	0.16	0.12	-0.06
Above three scenarios combined	0.35	-0.12	2.82	4.65	3.30	2.17

Source. Conforti and Sarris, 2007

Policies to managing the transition to a more developed agricultural sector

- To maintain low wages for industrialization, and to ensure food security, need to have cheap food. Implies emphasis on domestic production increases to maintain quantities of food, and/or open markets for food imports. However, unless productivity increases are enough to compensate farmers for lower prices, price incentives to farmers may need to be maintained by supported prices (directly or through tariffs).
- When domestic production suffers a negative shock, and imports keep prices down, farmers may suffer more. Need to balance cheap food needs of the urban poor with income needs of farmers. Direct compensatory support to farmers of some type maybe in order (allowed under article 6 of the UR AoA). However, limitation is fiscal cost.
- Maintaining price stability requires flexible domestic and trade policies

Dynamic comparative advantage in agriculture and industry

- Agriculture generally characterized (at least at early phases) by constant internal economies of scale but perhaps large external scale economies (a large productive sector facilitates cost reducing infrastructure, market development and other investments).
- Industrial sector characterized by both internal and external economies.
- At early phases of agric development emphasis on research, infrastructure, education. Less on markets, but need to avoid catastrophic price declines
- At intermediate stages of agricultural development emphasis on market development. Policies to deal with market failures.
- As agriculture develops further policy emphasis shifts to value addition, risk management, quality, etc.

Trade policies to facilitate agricultural development in the context of faster growth

- At early stages of agricultural development agriculture generally taxed, directly and/or indirectly. Trade policy relatively liberal.
- At intermediate stages of agricultural development trade policy may need to support domestic policies of developing markets and correcting market failures. Second best trade policies maybe necessary in face of domestic market failures. (Most relevant for Africa)
- At later stages of agricultural development restructuring towards more labour and capital intensive products, may necessitate intermediate levels of protection, but need to alleviate concerns for food security and import surges (need safeguards).
- At later stages of agricultural development trade policy may need to be selective and target non-trade concerns. Special and sensitive products?
- Need trade policy flexibility at all stages.
- At early stages of agricultural development such as that of most African countries more emphasis on tariff policy because of market failures. At later stages of agricultural development more emphasis on direct domestic support policies. Important to keep options open at both stages.

Conclusions: Major challenges to reversing the productivity gap in African agriculture and enhancing trade

- Need much faster African agricultural productivity growth to deal with growing food dependence and stagnating overall growth
- Need to reflect on and implement new institutional ways to interlink credit and output-labour markets (producer associations, contracting, etc).
- Emphasize more efficient use of existing technologies rather than expensive investments in new technologies. African agricultural productivity can improve considerably by better applications of existing technologies
- Need to invest so as to lower marketing margins and thus enhance producer returns
- Need to increase the use of market based insurance mechanisms for producers, to release private productive capital.
- May need time bound infant industry type of protection or other support for selected agro-industrial sectors, perhaps on a regional basis, until infrastructure improves and marketing margins decline