

BOTSWANA

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Livestock Information, Sector Analysis
and Policy Branch • **AGAL**



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Data contained in this Livestock Sector Brief are taken from official sources. Official sources are no guarantee for data accuracy and the figures reported in this brief should be taken as indicative and not be used for official purposes. The Food and Agriculture Organization of the United Nations assumes no responsibility for its accuracy, completeness and coherence.

PREFACE

The Livestock Sector Briefs (LSB) are intended to provide a quick overview and an approximate outlook for the livestock sector of the respective country using figures and quantitative indicators originating from official sources. The LSBs are complemented by a synthesis of policy documents available in the public domain.

The majority of the data in the LSBs refer to the country as a whole and come from FAOSTAT, which is available on the internet (<http://faostat.external.fao.org/default.jsp>). FAO, as part of its mandate, compiles information and data on various aspects of food and agriculture from all countries. The data are analysed and interpreted to support FAO's programmes and activities and, in accordance with the basic functions of the Organization, they are disseminated to the public through publications, CD-ROM, diskettes and the Internet. The country level data are officially submitted to the Division for Statistics of FAO (ESS) by various ministries of the respective countries. For details of data collection procedures see <http://faostat.fao.org/abcdq/about.htm>. The figures submitted often display inconsistencies across ministries, for example reported meat production does not always match reported meat consumption when taking into account imports and exports. FAO tries to reconcile the figures, to the effect that FAO statistics may differ from those originally submitted.

The LSBs utilise FAOSTAT data from the following domains: human population, land use, agriculture production, food supply and agricultural and food trade. These are used to derive a standard set of indicators that can quickly be compared across the countries.

Data on the economy are from the World Bank's World Development Indicators CD-Rom, which is also available online <http://www.worldbank.org/data/> and is updated every year. Animal health data are taken from the Office International des Epizooties (OIE) HANDISTATUS II <http://www.oie.int/hs2/>. These are official data supplied by member nations.

For any feedback and comment, please contact:

Pius Chilonda - Livestock Information Analyst
Livestock Information, Sector Analysis and Policy Branch
Animal Production and Health Division
Food and Agricultural Organisation
Viale delle Terme di Caracalla
00100 Rome, Italy

Tel: 00 39 06 57056691
Fax: 00 39 06 57055749
Email: Pius.Chilonda@fao.org

1. GENERAL INFORMATION

Human population, land and socio-economics

Human population	1.8 million
Population density on total land	3.1 persons/sqkm
Annual growth rate (1990-2000)	2.1 %
Population in agriculture	0.8 million
As proportion of total population	44.1 %
Total land area	566,730 sqkm
Agricultural land	259,800 sqkm
As proportion of total land	45.8 %
Land under pasture	256,000 sqkm
As proportion of total land	98.5 %
Irrigated area	10 ha
Agricultural land per 100 people	1,468 ha
Agricultural land per 100 people in agriculture	3,331 ha
Agricultural population density on agricultural land	3.0 persons/sqkm
GDP ¹	7,023 million US\$
GDP annual growth rate (1990-2000)	5.0 %
GDP per capita/year ¹	4,102 US\$
GDP per capita annual growth rate (1990-2000)	2.6 %
Agriculture, GDP	176 million US\$
As proportion of total GDP	2.5 %
Livestock, GDP ¹	156 million US\$
As proportion of agricultural GDP	88.7 %
Human development Rank	128 Ranking ²
Human development index	0.589
Poverty incidence ³	
Total	na %
Urban	na %
Rural	na %

¹Constant 1995 US\$ ² The HDI rank is determined using HDI values to the fifth decimal point – from 177 countries, as compiled by the UNDP; ³ National poverty line; na: not available

Source: World Bank (2002); UNDP (2004); FAO (2005a)

Human population trends

Values expressed in 1,000

Population segment	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Total	987	1,354	1,725	1,770	3.2	2.5
Rural	805	781	860	871	-0.3	1.0
Urban	182	573	866	899	12.2	4.2

Source: FAO (2005a)

Trends in agricultural¹ land

Values expressed in sqkm

Land type	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Total	260,040	260,210	259,800	259,800	0.0	0.0
Cropped ²	4,040	4,210	3,800	3,800	0.4	-1.0
Pastures	256,000	256,000	256,000	256,000	0.0	0.0

¹The sum of area under arable land, permanent crops and permanent pastures

²Arable and permanent crops

Source: FAO (2005a)

2. LIVESTOCK RESOURCES

Livestock populations

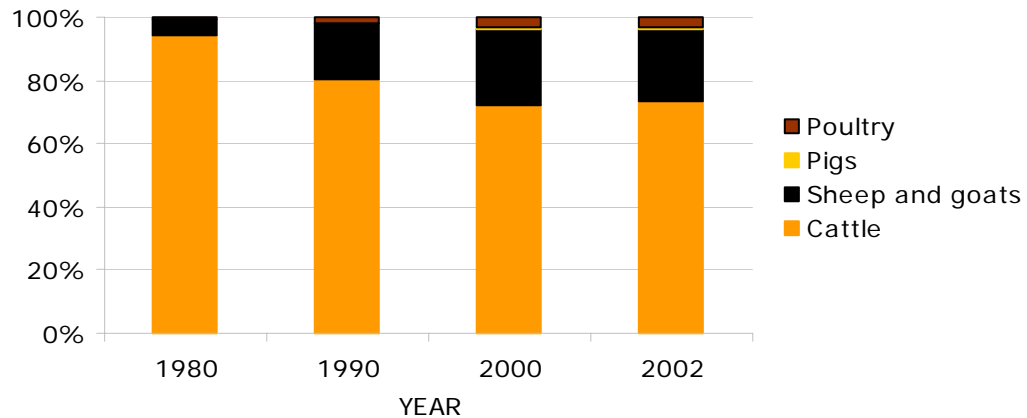
Values expressed in 1,000

Species	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Cattle	2,911	2,200	1,500	1,700	-2.8	-3.8
Sheep and goats	786	2,409	2,570	2,680	11.8	0.6
Pigs	6	16	6	8	10.4	-9.5
Poultry	833	2,126	3,500	4,000	9.8	5.1
Total LUs	1,544	1,365	1,043	1,160	-1.2	-2.7

LU: *Livestock unit*; **conversion factors:** cattle (0.50), sheep and goats (0.10), pigs (0.20) and poultry (0.01)

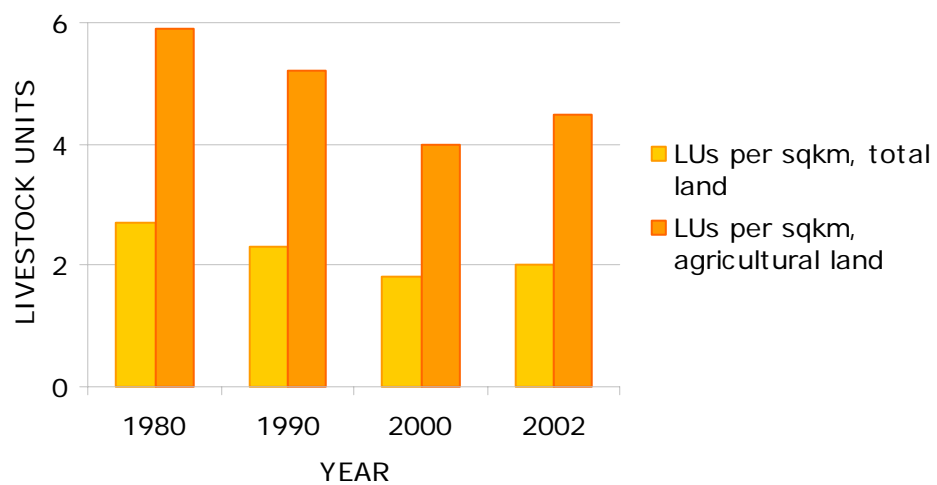
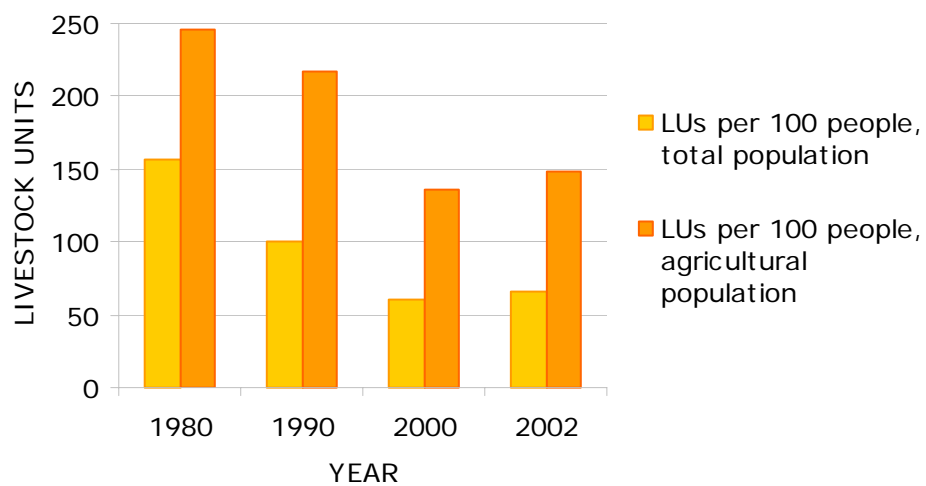
Source: FAO (2005a)

Contribution of different species to total livestock units



Source: FAO (2005a)

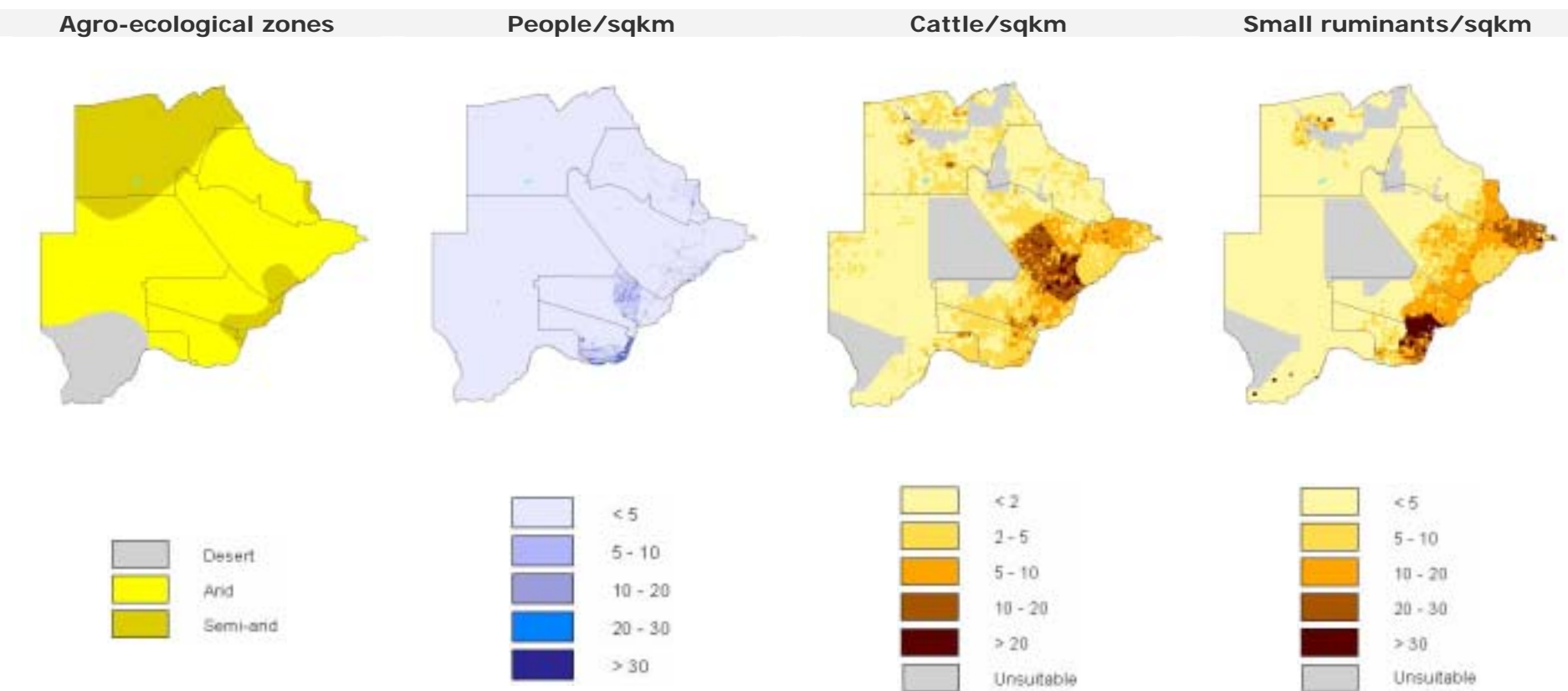
Selected indicators of livestock resources



Source: FAO (2005a)

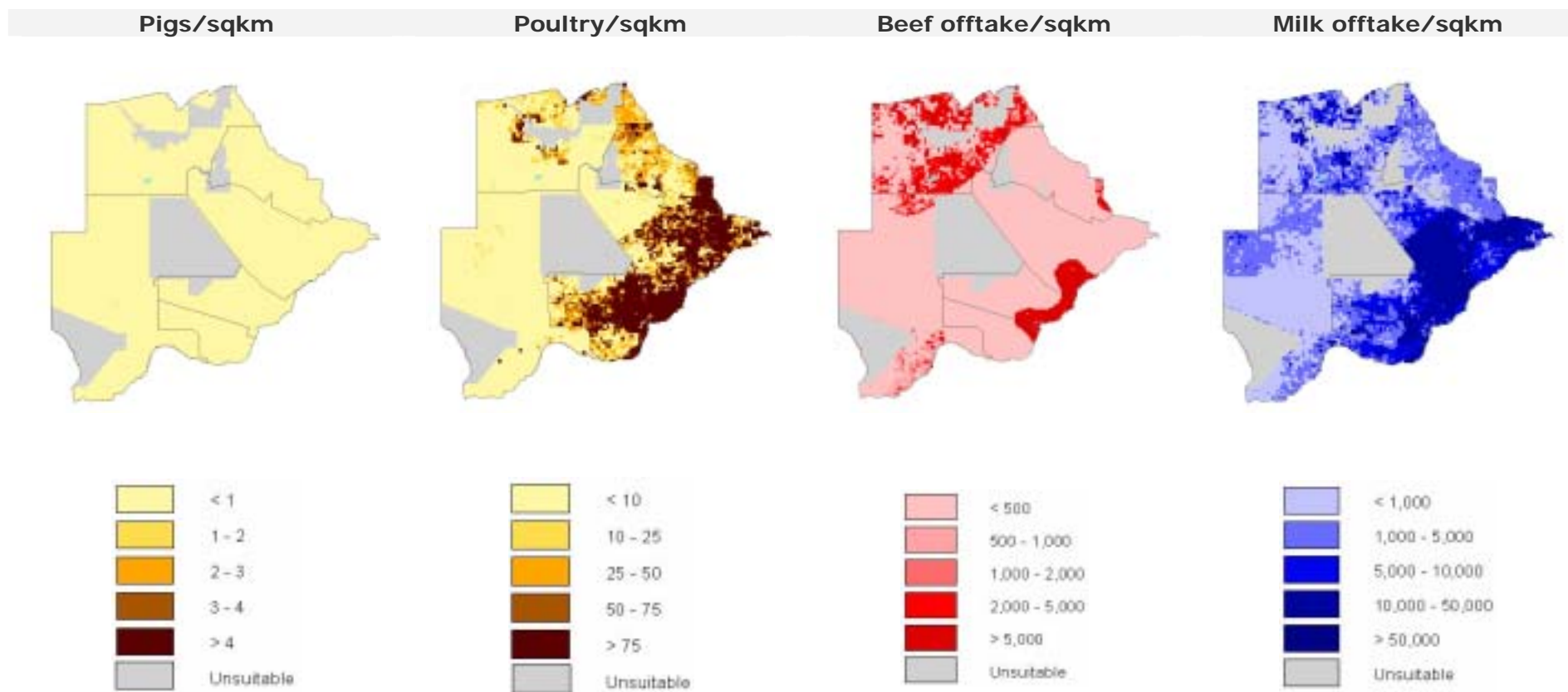
Agro-ecological zones and densities of livestock species (2000)

Density calculated on total land area¹



¹Densities for livestock populations and production are based on total land suitable for livestock production

Source: FAO (2001); LandScan (2002), FAO (2005b)



Source: FAO (2005b); FAO (2003)

3. LIVESTOCK PRODUCTION

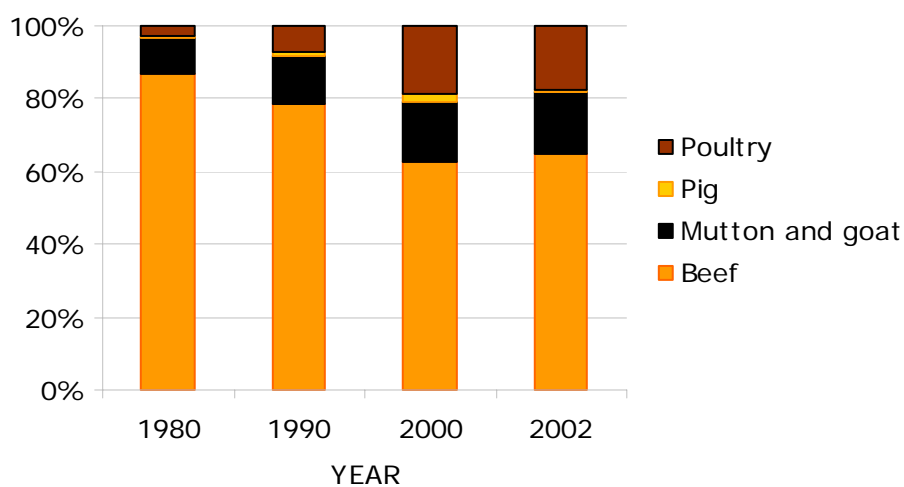
Trends in annual production of meat, milk and eggs

1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Meat, total	38.8	59.5	58.7	59.9	4.4	-0.1
Beef	28.6	41.9	29.0	31.0	3.9	-3.6
Mutton and goat	3.3	6.9	7.7	8.0	7.8	1.1
Pig	0.2	0.7	0.9	0.4	10.4	3.5
Poultry	0.8	3.8	8.8	8.3	16.4	8.6
Milk, total	93.8	115.4	105.4	105.4	2.1	-0.9
Eggs, total	0.8	1.9	3.2	3.2	9.9	4.9

Source: FAO (2005a)

Composition of total meat production



Source: FAO (2005a)

Carcass weights and percentage slaughtered by species

Species/year	Carcass weight (kg/animal)				Percentage slaughtered/year			
	1980	1990	2000	2002	1980	1990	2000	2002
Cattle	203.1	214.0	196.0	200.0	4.8	8.9	9.9	9.1
Sheep	14.0	14.0	14.0	14.0	30.6	32.2	32.4	32.6
Goat	12.0	12.0	12.0	12.0	34.4	22.0	23.0	22.4
Pigs	50.0	50.0	50.0	50.0	81.7	81.5	310	93.8
Poultry	0.8	0.8	0.8	0.8	126.1	225.8	314.3	260.0

Source: FAO (2005a)

Milk yields and proportion of dairy animals

Species/year	Milk yield (kg/year)				Percentage milked			
	1980	1990	2000	2002	1980	1990	2000	2002
Cattle	350	350	350	350	8.9	14.5	19.3	17.1

Source: FAO (2005a)

Egg yields and proportion of laying birds

Species/year	Eggs (kg/year)				Percentage laying			
	1980	1990	2000	2002	1980	1990	2000	2002
Chicken	1.8	1.8	1.8	1.8	50.4	50.8	50.0	43.8

Source: FAO (2005a)

Estimated feed used for livestock production

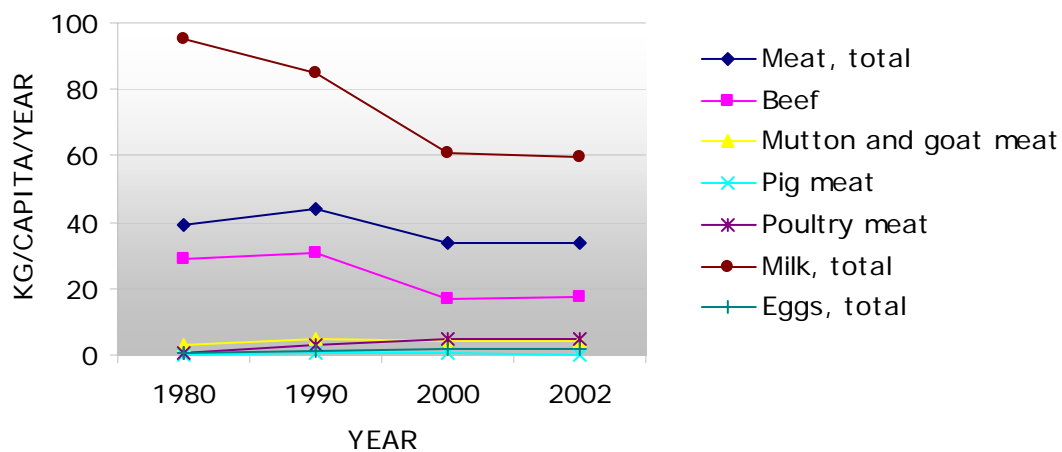
1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Maize	5.0	5.0	2.3	3.0	0.0	-7.6
Barley	0	0	0	0		
Sorghum						
Millet						
Wheat						
Brans	2.9	8.4	11.0	10.7	11.1	2.7
Rice Paddy, equivalent						
Roots and Tuber, dry equivalent						
Pulses						
Oil crops	0.0	0.0	0.4	0.0	-1.6	31.6

Blanks represent no data

Source: FAO (2005a)

Trends in annual per capita production of meat, milk and eggs



Source: FAO (2005a)

4. CONSUMPTION OF MEAT, MILK AND EGGS

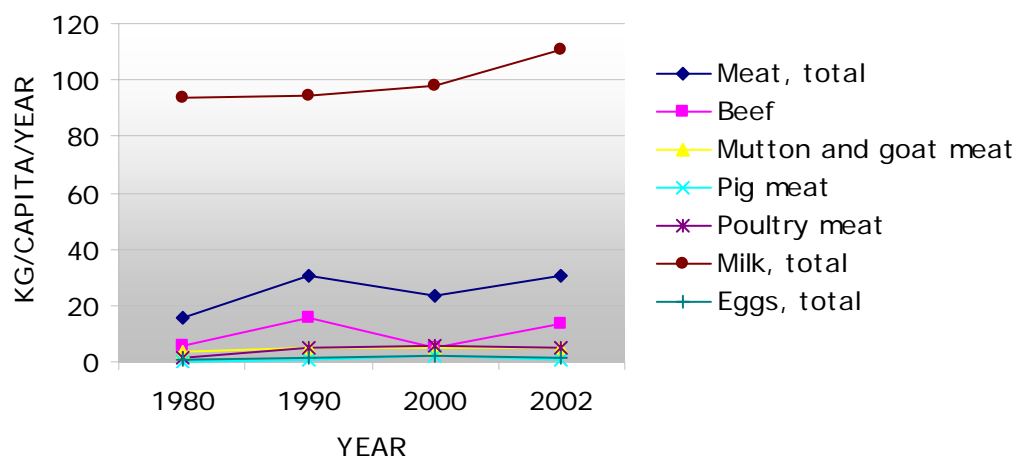
Trends in annual consumption of meat, milk and eggs

1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Meat, total	15.3	41.2	39.9	54.3	10.4	-0.3
Beef	5.5	21.6	8.6	23.7	14.6	-8.8
Sheep and goat	3.3	6.3	8.0	8.8	6.8	2.5
Pig	0.3	1.3	3.6	1.3	13.9	11.1
Poultry	1.5	6.4	9.4	8.4	15.6	4.0
Milk, total	92.6	128.0	169.4	195.8	3.3	2.8
Eggs, total	0.9	1.9	3.4	2.8	7.5	6.0

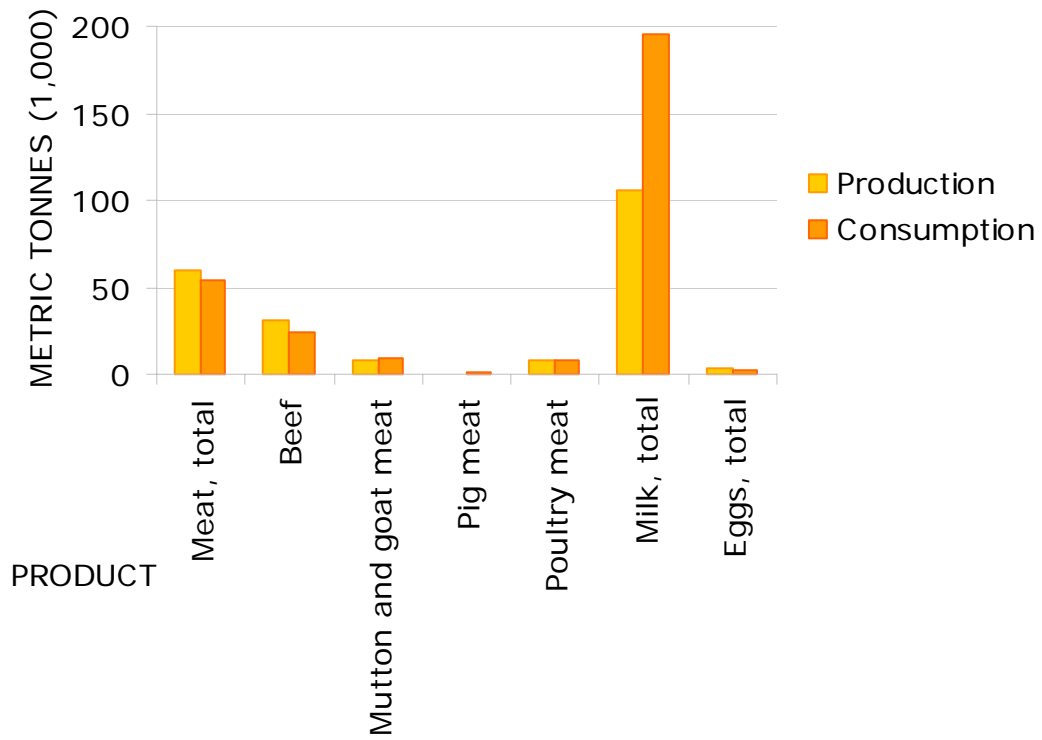
Source: FAO (2005a)

Trends in annual per capita consumption of meat, milk and eggs



Source: FAO (2005a)

Production versus consumption for meat, milk and eggs (2002)



Source: FAO (2005a)

5. TRADE IN LIVESTOCK AND LIVESTOCK PRODUCTS

Trade in agricultural and livestock¹ products

Values in million US\$

Product	Exports				Imports			
	1980	1990	2000	2002	1980	1990	2000	2002
Total	563	2,087	3,220	2,667	705	1,887	2,076	1,947
Agricultural	51	79	119	49	107	222	393	273
% agricultural	9.1	3.8	3.7	1.8	15.1	11.8	18.9	14
Livestock	46	62	84	42	15	37	49	50
% livestock	8.2	3.0	2.6	1.6	2.1	1.9	2.3	2.5

¹Total trade in goods and services expressed in current US\$. Source: World Bank (2002)
Agricultural trade refers to all agricultural products, while livestock trade refers to trade in livestock products and live animals. Source: FAO (2005b)

Export/import 'dependency' for livestock products

Product	Exports as percentage of production				Imports as percentage of consumption			
	1980	1990	2000	2002	1980	1990	2000	2002
Meat, total	64.23	35.06	36.21	22.24	10.11	8.76	8.43	3.14
Beef	84.07	47.85	70.25	42.57	13.36	1.19	8.04	0.66
Sheep and goat	0.21	4.15	0.00	0.00	0.61	0.68	3.82	8.86
Pig	0.00	8.49	0.86	0.53	27.93	43.38	46.11	46.80
Poultry	0.00	0.62	0.00	0.00	43.62	40.18	6.46	0.76
Milk, equivalent	0.19	0.13	0.36	0.58	34.85	53.90	87.08	84.25
Eggs, total	0.00	0.00	0.00	0.00	38.22	15.38	20.68	15.57

Source: FAO (2005a)

Product	Net exports as percentage of production				Net imports as percentage of consumption			
	1980	1990	2000	2002	1980	1990	2000	2002
Meat, total	60.23	28.98	30.47	29.96	0.00	0.00	0.00	0.00
Beef	81.50	47.24	67.86	45.61	0.00	0.00	0.00	0.00
Sheep and goat	0.00	3.53	0.00	0.00	0.40	0.00	3.82	8.86
Pig	0.00	0.00	0.00	0.00	27.93	38.95	45.89	46.65
Poultry	0.00	0.00	0.00	0.00	43.62	39.80	6.46	0.76
Milk, equivalent	0.00	0.00	0.00	0.00	34.66	53.79	86.86	83.94
Eggs, total	0.00	0.00	0.00	0.00	38.22	15.38	20.68	15.57

Source: FAO (2005a)

Trade in live animals

Species	1980			1990			2000			2002		
	Export	Import	Net trade	Export	Import	Net trade	Export	Import	Net trade	Export	Import	Net trade
Quantities (count)												
Cattle	0	1,000	-1,000	1	7,324	-7,323	78	14,446	-14,368	7	150	-143
Sheep and goats	0	2,000	-2,000	0	3,023	-3,023	8	2,514	-2,506	0	3,174	-3,174
Pigs	0	300	-300	0	1,853	-1,853	40	14,143	-14,103	0	1,527	-1,527
Poultry (1,000)	0	250	-250	9	2,287	-2,278	11	6,541	-6,530	9	5,240	-5,231
Value (1,000 US\$)												
Cattle	0	641	-641	0	2,907	-2,907	17	1,424	-1,407	2	20	-18
Sheep and goats	0	122	-122	0	120	-120	0	114	-114	1	382	-381
Pigs	0	31	-31	0	83	-83	1	207	-206	0	45	-45
Poultry (1,000)	0	156	-156	113	1,487	-1,374	134	3,016	-2,882	135	1,360	-1,225
Total	0	950	-950	113	4,597	-4,484	152	4,761	-4,609	138	1,807	-1,669

Net trade: Exports less Imports

Blanks represent no data

Source: FAO (2005a)

Trade in livestock products

Product	1980			1990			2000			2002		
	Export	Import	Net trade	Export	Import	Net trade	Export	Import	Net trade	Export	Import	Net trade
Quantities (metric tonnes)												
Meat, total	24,915	1,549	23,367	20,852	3,611	17,241	21,236	3,363	17,873	13,325	1,704	11,621
Beef	24,038	735	23,303	20,067	257	19,810	20,357	692	19,665	13,197	156	13,041
Mutton and goat	7	20	-13	288	43	245	0	307	-307	0	780	-780
Pig	0	96	-96	56	549	-493	8	1,667	-1,659	2	618	-616
Poultry	0	650	-650	24	2,562	-2,538	0	607	-607	0	64	-64
Other	870	48	-918	417	200	-617	871	90	-961	126	86	-211
Milk, equivalent	177	32,291	-32,114	152	69,017	-68,865	380	147,514	-147,134	608	164,952	-164,344
Eggs, total	0	350	-350	0	290	-290	0	698	-698	0	442	-442
Hides and skins	2,210	0	2,210	1,847	211	1,636	5,121	28	5,093	2,320	69	2,251
Value (1,000 US\$)												
Meat, total	42,442	2,800	39,642	59,069	3,988	55,081	71,830	5,201	66,629	36,825	2,434	34,391
Beef	40,429	1,261	39,168	56,944	435	56,509	71,398	1,279	70,119	36,762	155	36,607
Mutton and goat	7	66	-59	460	106	354	0	882	-882	0	845	-845
Pig	0	364	-364	163	1,002	-839	31	2,156	-2,125	4	1,039	-1,035
Poultry	1	1,041	-1,040	112	1,734	-1,622	0	606	-606	0	147	-147
Other	2,005	68	-2,073	1,390	711	-2,101	401	278	-679	59	248	-307
Milk, equivalent	42	10,284	-10,242	42	25,952	-25,910	111	36,453	-36,342	111	44,425	-44,314
Eggs, total	0	425	-425	5	437	-432	0	1,903	-1,903	0	741	-741
Hides and skins	3,286	13	3,273	2,811	1,154	1,657	11,754	64	11,690	3,175	121	3,054
Total	45,770	13,522	32,248	61,927	31,531	30,396	83,695	43,621	40,074	40,111	47,721	-7,610

Net trade: Exports less Imports

Blanks represent no data

Source: FAO (2005a)

6. LIVESTOCK HEALTH

Total number of cases/outbreaks of selected diseases reported in all susceptible species

Disease	1997	1998	1999	2000	2001	2002	2003
African swine fever	(11/1987)	(11/1987)	.../1	(06/1999)	(06/1999)	(06/1999)	(06/1999)
Avian Influenza ¹	000	000	000	000	000	000	000
Bluetongue	(1994)	(1994)	(1994)	1/1	
BSE ²	000	000	000	000	000	000	000
CBPP ³	(12/1995)	(12/1995)	(12/1995)	(12/1995)	(12/1995)	(12/1995)	(12/1995)
Classical swine fever	000	000	000	000	000	000	000
Foot and mouth disease	(09/1980)	(09/1980)	(09/1980)	(09/1980)	(09/1980)	67/2	27/4
Lumpy skin disease	2/1	1/1	8/8	73/67	1/1	2/2	4/3
Newcastle disease	1/1	28/28	12/12	(11/1999)	68/15	6/6	2/2
Peste des petits ruminants	000	000	000	000	000	000	000
Rift Valley fever	000	000	000	000	000	000	000
Rinderpest	(1899)	(1899)	(1899)	(1899)	(1899)	(1899)	(1899)
Sheep and goat pox	000	000	000	000	000	000	000
Swine vesicular disease	000	000	000	000	000	000	000
Vesicular stomatitis	000	000	000	000	000	000	000

¹ Highly pathogenic avian influenza

² Bovine spongiform encephalopathy

³ Contagious bovine pleuropneumonia

no./no. number of cases/outbreaks, ... no information, - disease not reported, 000 disease never reported; (month/year) date of the last reported occurrence of the disease in previous years

Source: OIE (2004)

7. REFERENCES AND FURTHER READING

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