

# LAOS, PEOPLE'S DEMOCRATIC REPUBLIC

Food and Agriculture Organization  
of the United Nations • **FAO**

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



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## TABLE OF CONTENTS

Preface .....	ii
<b>1. General Information.....</b>	<b>1</b>
Human population, land and socio-economics .....	1
Human population trends .....	2
Trends in agricultural land .....	2
<b>2. Livestock Resources.....</b>	<b>3</b>
Livestock populations .....	3
Contribution of different species to total livestock units .....	3
Selected indicators of livestock resources .....	4
Agro-ecological zones and densities of livestock species (2000) .....	5
<b>3. Livestock Production .....</b>	<b>7</b>
Trends in annual production of meat, milk and eggs .....	7
Composition of total meat production .....	7
Carcass weights and percentage slaughtered by species.....	8
Milk yields and proportion of dairy animals.....	8
Egg yields and proportion of laying birds.....	8
Estimated feed used for livestock production.....	9
Trends in annual per capita production of meat, milk and eggs.....	9
<b>4. Consumption of Meat, Milk and Eggs .....</b>	<b>10</b>
Trends in annual consumption of meat, milk and eggs .....	10
Trends in annual per capita consumption of meat, milk and eggs.....	10
Production versus consumption for meat, milk and eggs (2002) .....	11
<b>5. Trade in Livestock and Livestock Products.....</b>	<b>12</b>
Trade in agricultural and livestock products.....	12
Export/import 'dependency' for livestock products .....	12
Trade in live animals .....	14
Trade in livestock products .....	15
<b>6. Livestock Health .....</b>	<b>16</b>
Total number of cases/outbreaks of selected diseases reported in all susceptible species .....	16
<b>7. References and Further Reading.....</b>	<b>18</b>

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.

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## 1. GENERAL INFORMATION

### Human population, land and socio-economics

Human population	5.5 million
Population density on total land	24.0 persons/sqkm
Annual growth rate (1990-2000)	2.4 %
Population in agriculture	4.2 million
As proportion of total population	76.1 %
Total land area	230,800 sqkm
Agricultural land	18,790 sqkm
As proportion of total land	8.1 %
Land under pasture	8,780 sqkm
As proportion of total land	46.7 %
Irrigated area	1,750 ha
Agricultural land per 100 people	34 ha
Agricultural land per 100 people in agriculture	45 ha
Agricultural population density on agricultural land	224 persons/sqkm
GDP <sup>1</sup>	2,640 million US\$
GDP annual growth rate (1990-2000)	6.3 %
GDP per capita/year <sup>1</sup>	477 US\$
GDP per capita annual growth rate (1990-2000)	3.7 %
Agriculture, GDP	na million US\$
As proportion of total GDP	na %
Livestock, GDP <sup>1</sup>	na million US\$
As proportion of agricultural GDP	14.3 %
Human development Rank	135 Ranking <sup>2</sup>
Human development index	0.534
Poverty incidence <sup>3</sup>	
Total	38.6 %
Urban	26.9 %
Rural	41.0 %

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

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

- Laos is a low-income rural economy with livestock estimated to contribute around 9% to GDP. In 1986 the government adopted the New Economic Mechanism (NEM) to transform the centrally planned economy established in 1975 into a market-driven economy. The NEM set out to liberate prices; eliminate subsidies and parastatals; align the exchange rate with the market rate; and encourage private and foreign commercial activities in most sectors of the economy. Following the Asian financial crisis in 1997, the government embarked on a strong stabilization programme, curbing its expenditures, improving tax collection, and imposing monetary controls.

### Human population trends

Values expressed in 1,000

Population segment	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Total	3,205	4,132	5,279	5,529	2.6	2.5
Rural	2,809	3,495	4,261	4,414	2.2	2.0
Urban	397	638	1,018	1,115	4.9	4.8

Source: FAO (2005a)

### Trends in agricultural<sup>1</sup> land

Values expressed in sqkm

Land type	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Total	16,060	16,600	18,360	18,790	0.3	1.0
Cropped <sup>2</sup>	8,060	8,600	9,580	10,010	0.7	1.1
Pastures	8,000	8,000	8,780	8,780	0.0	0.9

<sup>1</sup>The sum of area under arable land, permanent crops and permanent pastures

<sup>2</sup>Arable and permanent crops

Source: FAO (2005a)

- In 1991 Lao PDR adopted a new Constitution which endorsed the principle that land belongs to the State and that individuals are guaranteed rights to use it. Even though land use rights, which are saleable, have not yet been fully distributed, a land market has been developing since 1992. The government has also been establishing a land registry survey for the irrigated areas and promoting a countrywide Land Use Planning exercise to stabilize land use, conserve forests and provide secure tenure to farmers.

## 2. LIVESTOCK RESOURCES

### Livestock populations

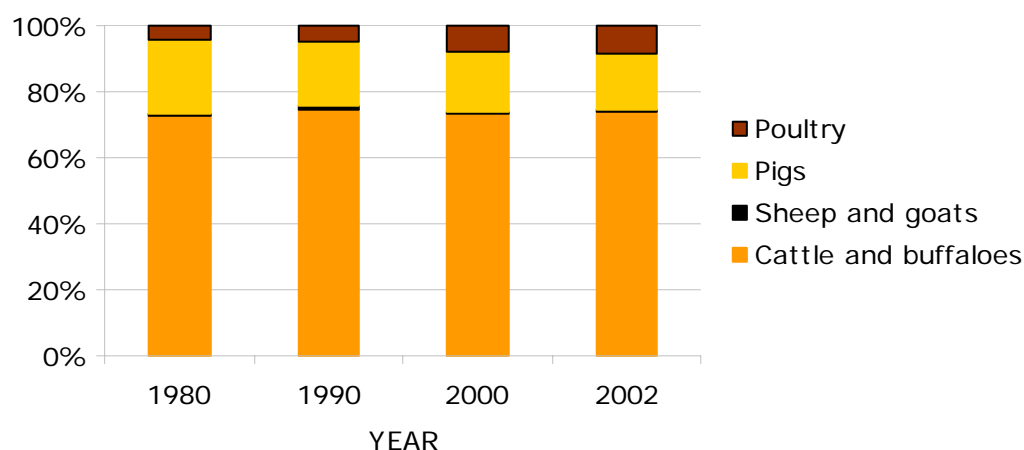
Values expressed in 1,000

Species	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Cattle and buffaloes	1,309	1,914	2,128	2,297	3.9	1.1
Sheep and goats	49	139	121	128	11.1	-1.4
Pigs	1,111	1,372	1,425	1,416	2.1	0.4
Poultry	4,884	8,301	14,885	17,069	5.4	6.0
Total LUs	1,226	1,737	1,952	2,085	3.6	1.2

**LU:** Livestock unit; **conversion factors:** cattle (0.65), buffaloes (0.70), sheep (0.10), goats (0.10), pigs (0.25), poultry (0.01)

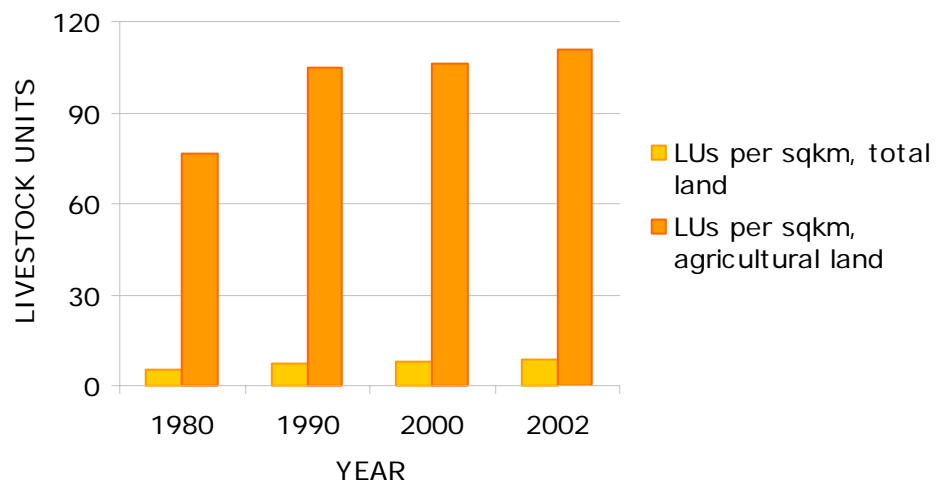
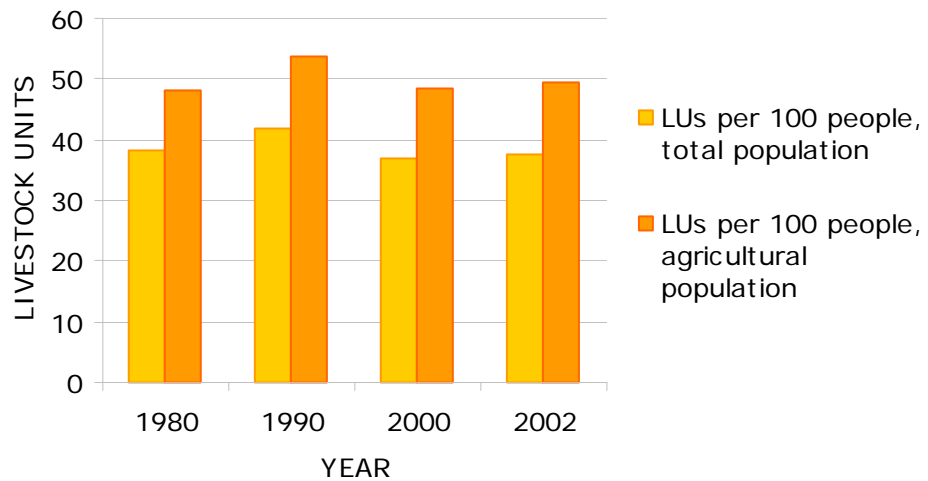
Source: FAO (2005a)

### Contribution of different species to total livestock units



Source: FAO (2005a)

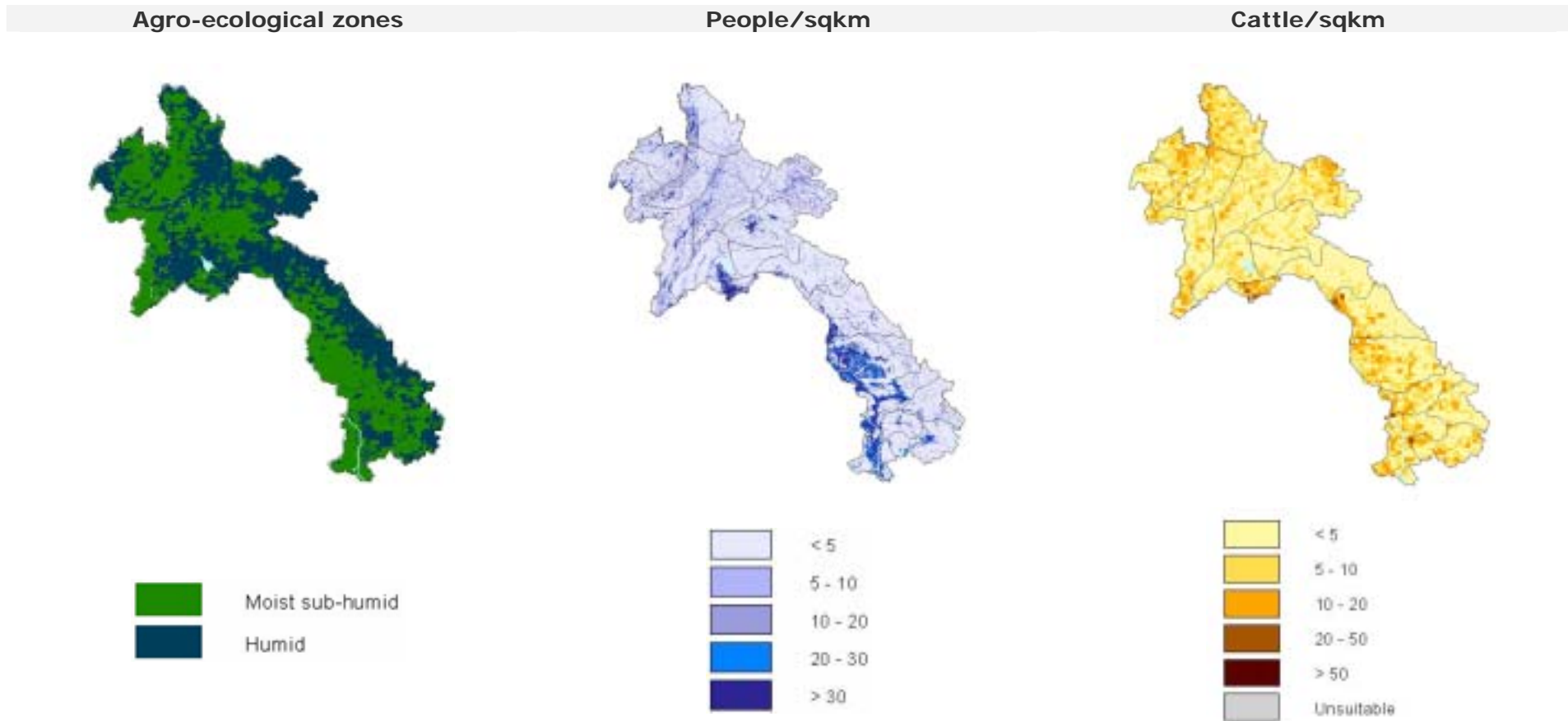
## Selected indicators of livestock resources



Source: FAO (2005a)

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

Density calculated on total land area<sup>1</sup>

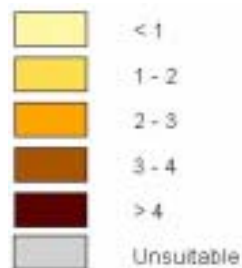


<sup>1</sup>Densities for livestock populations and production is based on total land suitable for livestock production

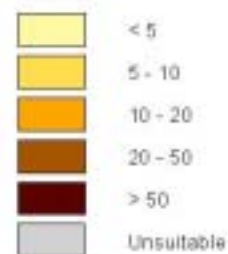
Source: FAO (2001); LandScan (2002); FAO (2005b)



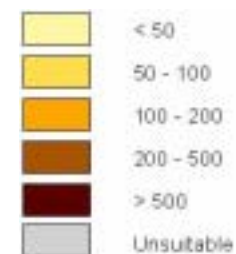
## Sheep/sqkm



## Pigs/sqkm



## Poultry/sqkm



Source: FAO (2005b)

- Virtually all of the livestock production is traditional, extensive and low input. The greatest difference is encountered between the predominantly lowland areas in the Mekong Corridor zone and the upland areas of the Sloping Lands zones. Cattle and buffalo are mostly found in the Central Region, where they are grazed on the vacant cropping area for most of the year, but are also grazed extensively in the Sloping Lands zone. Pig production is an important livelihood activity of highland people, and most farmers tend to raise local chickens. Commercial pig and poultry operations are found near population centres such as Vientiane, and are mostly small cottage industries with few employees.

### 3. LIVESTOCK PRODUCTION

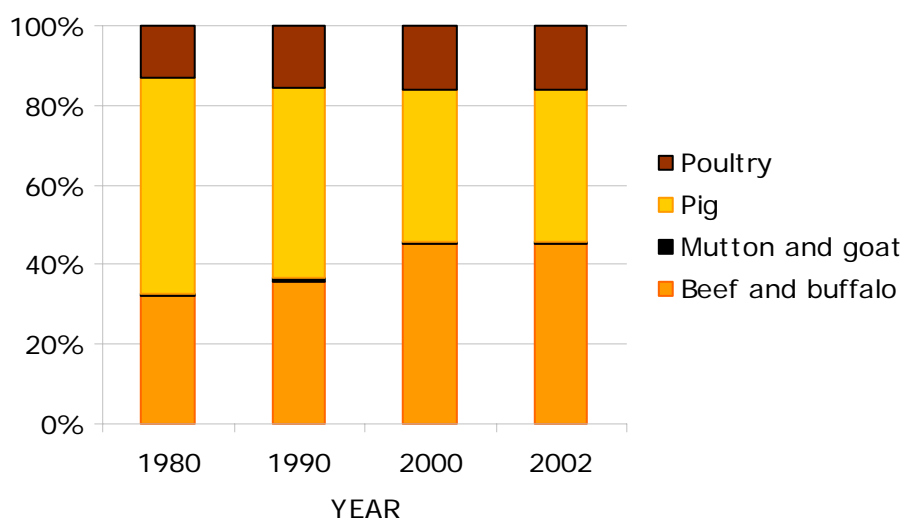
#### Trends in annual production of meat, milk and eggs

1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Meat, total	30.7	43.9	73.0	82.9	3.6	5.2
Beef and buffalo	9.9	15.7	33.0	37.6	4.7	7.7
Mutton and goat	0.1	0.3	0.4	0.5	12.2	2.6
Pig	16.6	20.9	27.6	31.6	2.3	2.9
Poultry	4.1	6.9	11.9	13.3	5.5	5.6
Milk, total	3.2	4.7	6.0	6.0	3.9	2.5
Eggs, total	4.3	4.3	10.3	12.9	0.1	9.0

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	83.0	83.0	110.2	127.3	7.5	10.7	13.5	13.1
Buffaloes	110.0	110.0	110.0	110.0	7.5	7.0	14.7	14.5
Sheep								
Goat	14.0	14.0	14.0	14.0	15.4	17.0	25.3	27.5
Pigs	20.0	20.0	26.4	24.8	74.7	76.0	73.5	89.7
Poultry	0.8	0.8	1.0	0.8	98.9	99.5	82.9	96.9

Blanks represent no data

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	200	200	200	200	3.6	2.8	2.7	2.5
Buffaloes								

Blanks represent no data

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	5.2	5.2	5.6	5.5	16.7	9.8	13.7	15.1

Source: FAO (2005a)

## Estimated feed used for livestock production

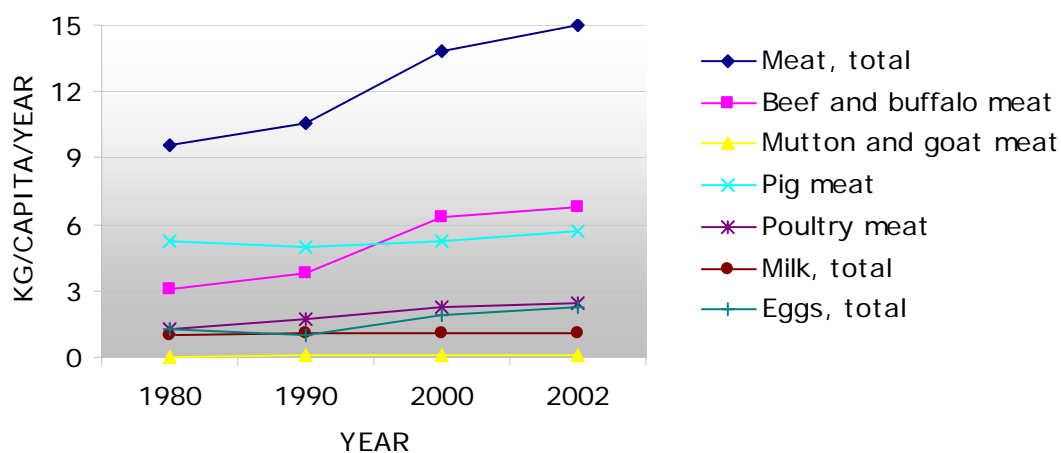
1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Maize	0.8	5.0	12.0	14.0	19.4	9.1
Barley						
Sorghum						
Millet						
Wheat						
Brans	83.6	122.6	178.5	196.5	3.9	3.8
Rice Paddy, equivalent	52.7	75.4	110.1	120.8	3.7	3.9
Roots and Tuber, dry equivalent	4.1	4.6	5.8	4.7	1.0	2.4
Pulses						
Oil crops	0.0	0.0	0.0	0.0		

Blanks represent no data

Source: FAO (2005a)

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



Source: FAO (2005a)

- Over the past two decades meat supply witnessed positive growth; however, the above tables and figures reveal that increased number of animals made up the entire level of growth of output, while productivity remained stagnant. Productivity levels (as defined by carcass weight) are in fact particularly low as compared to developing countries' average (around -26% for bovine; -40% for chicken; -64% for pigmeat, and -60% for milk).
- (i) The Socioeconomic Development Plan for 2001–2005 emphasizes increased livestock production and productivity as strategic poverty reduction measures; (ii) the National Growth and Poverty Eradication Program (NGPEP) recognizes low

productivity and livestock diseases as priority issues for the poor, and loss of livestock as one of the main causes of poverty. Development targets include a meat supply of 60 kg/capita/year and increased export of meat products for a total value of around \$50 million by 2020.

#### 4. CONSUMPTION OF MEAT, MILK AND EGGS

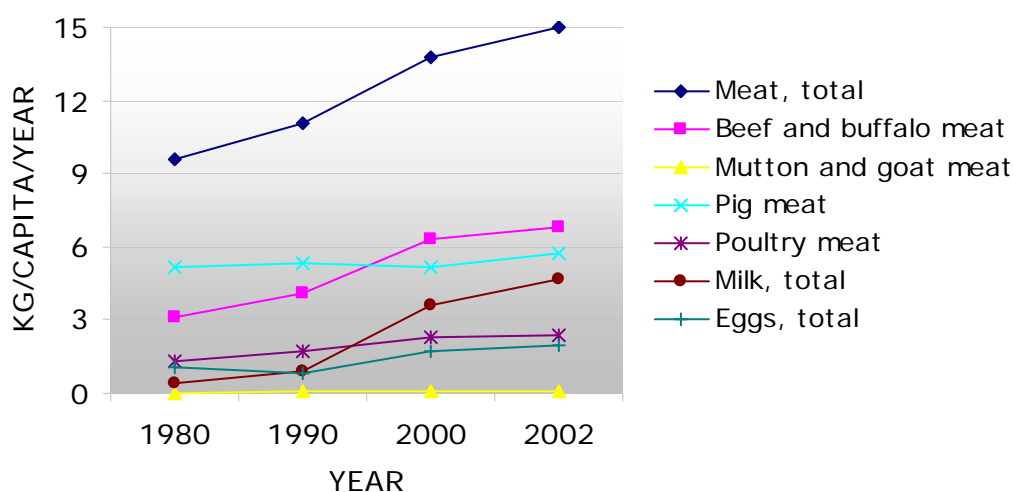
##### Trends in annual consumption of meat, milk and eggs

1,000 metric tonnes

Product	Year				Annual growth rate (%)	
	1980	1990	2000	2002	1980-1990	1990-2000
Meat, total	30.7	45.9	73.0	82.9	4.1	4.7
Beef and buffalo	9.9	16.8	33.0	37.6	5.4	7.0
Sheep and goat	0.1	0.3	0.4	0.5	12.2	2.6
Pig	16.6	21.9	27.6	31.6	2.8	2.4
Poultry	4.1	6.9	11.9	13.3	5.5	5.6
Milk, total	1.4	3.6	19.0	25.7	9.6	18.1
Eggs, total	3.7	3.5	8.9	11.1	-0.5	9.9

Source: FAO (2005a)

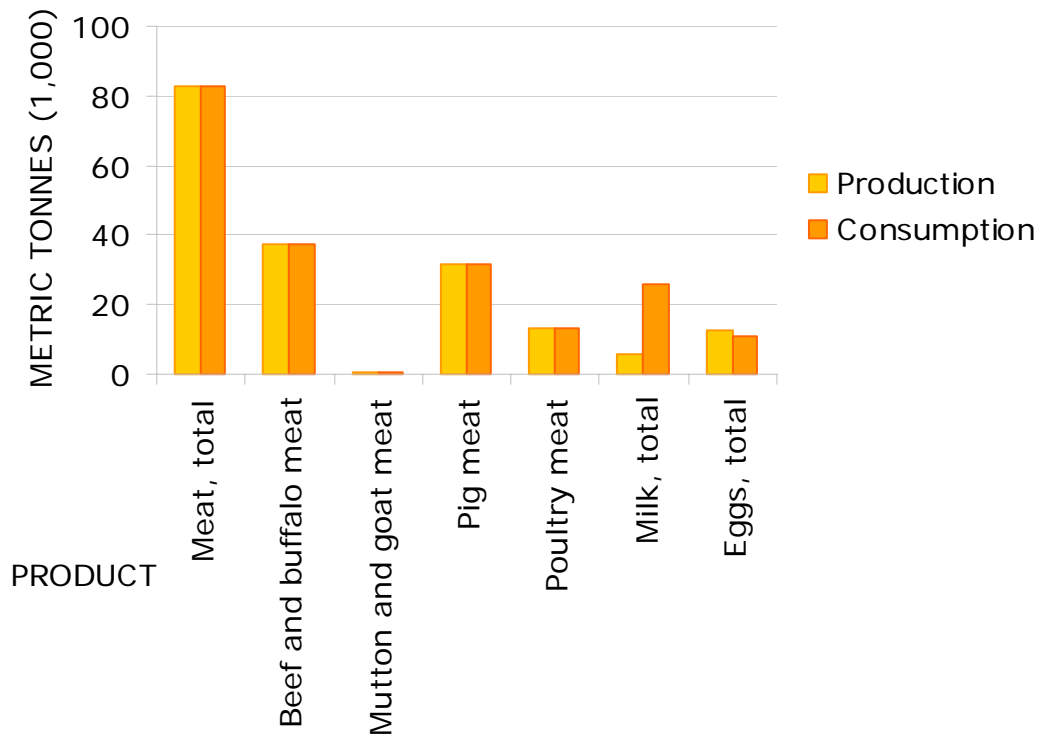
##### Trends in annual per capita consumption of meat, milk and eggs



Source: FAO (2005a)

- Growing population and per-capita income have led to increased meat and milk demand in the last two decades. Meat and milk consumption, however, are below developing countries' average (–49% kg per capita for bovine meat; –86% for pigmeat; –93% for chicken; –89% for milk).

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



Source: FAO (2005a)

## 5. TRADE IN LIVESTOCK AND LIVESTOCK PRODUCTS

### Trade in agricultural and livestock<sup>1</sup> products

Values in million US\$

Product	Exports				Imports			
	1980	1990	2000	2002	1980	1990	2000	2002
Total		98.1				212.2		
Agricultural	1.9	34.5	33.4	15.4	8.2	11.6	76.4	85.6
% agricultural		35.1				5.4		
Livestock	0.0	22.0	12.3	4.5	1.7	3.2	4.8	9.7
% livestock		22.4				1.5		

Blanks represent no data

<sup>1</sup>Total 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	0.00	0.00	0.01	0.01	0.00	2.35	0.01	0.03
Beef and buffalo	0.00	0.00	0.00	0.00	0.00	6.20	0.00	0.00
Sheep and goat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pig	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.06
Poultry	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.06
Milk, equivalent	0.00	0.00	0.00	0.00	633.33	294.16	72.35	84.34
Eggs, total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	0.00	0.00	0.00	0.00	0.00	2.35	0.00	0.03
Beef and buffalo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sheep and goat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pig	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.04
Poultry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Milk, equivalent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eggs, total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: FAO (2005a)

- Lao PDR runs a trade deficit of which around 20% is due to agricultural trade imbalance. Primary imports include non-alcoholic beverages, sugar and rice; main exports are coffee, live buffaloes and cattle and hides. In particular, about 75% of cattle and buffalo produced are consumed domestically and the remaining 25% are exported. Thailand is a major export market, with Lao PDR supplying approximately

20% of livestock demand, accounting for approximately 100,000 animals per year (much of this export occurs through unrecorded and unregulated border trade).

- Since 1997 Lao PDR is a member of the Association of Southeast Asian Nations (ASEAN) and is committed to a tariff reduction schedule under the ASEAN Free Trade Area (AFTA): all import duties are to be eliminated by 2015, with some sensitive products to follow by 2018. Through the framework of ASEAN, the country maintains a commercial and economic cooperation agreement with the European Union. Laos applied for WTO membership in July 1997, and submitted the Memorandum on its Foreign Trade Regime in March 2001. The government has also signed bilateral trade agreements with Mongolia, China, Vietnam, Poland, Bulgaria, and other Eastern European countries.



## 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
<b>Quantities (count)</b>												
Cattle and buffaloes	0	0	0	70,000	0	70,000	54,500	44	54,456	35,275	1	35,274
Sheep and goats		0	0		0	0		0	0		0	0
Pigs		0	0		0	0		351	-351		2,021	-2,021
Poultry (1,000)		0	0		0	0		82	-82		189	-189
<b>Value (1,000 US\$)</b>												
Cattle and buffaloes	0	0	0	22,000	0	22,000	12,000	16	11,984	4,476	0	4,476
Sheep and goats		0	0		0	0		0	0		0	0
Pigs		0	0		0	0		49	-49		321	-321
Poultry (1,000)		0	0		0	0		184	-184		305	-305
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22,000</b>	<b>0</b>	<b>22,000</b>	<b>12,000</b>	<b>249</b>	<b>11,751</b>	<b>4,476</b>	<b>626</b>	<b>3,850</b>

**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
<b>Quantities (metric tonnes)</b>												
Meat, total	0	0	0	0	1,080	-1,080	5	8	-3	5	26	-21
Beef and buffalo		0	0		1,040	-1,040		0	0		0	0
Mutton and goat		0	0		0	0		0	0		0	0
Pig	0	0	0	0	0	0	5	0	5	5	18	-13
Poultry		0	0		0	0		8	-8		8	-8
Other	0	0	0	0	40	-40	0	0	0	0	0	0
Milk, equivalent		9,120	-9,120		10,592	-10,592		13,715	-13,715		21,694	-21,694
Eggs, total		0	0		0	0		0	0		0	0
Hides and skins	0	0	0	0	0	0	441	0	441	18	0	18
<b>Value (1,000 US\$)</b>												
Meat, total	0	0	0	0	1,100	-1,100	5	5	0	5	44	-39
Beef and buffalo		0	0		1,100	-1,100		0	0		0	0
Mutton and goat		0	0		0	0		0	0		0	0
Pig	0	0	0	0	0	0	5	0	5	5	39	-34
Poultry		0	0		0	0		5	-5		5	-5
Other	0	0	0	0	0	0	0	0	0	0	0	0
Milk, equivalent	0	1,700	-1,700	0	2,060	-2,060	0	4,556	-4,556	30	9,039	-9,009
Eggs, total		0	0		0	0		0	0		0	0
Hides and skins	0	0	0	0	0	0	276	0	276	19	0	19
<b>Total</b>	<b>0</b>	<b>1,700</b>	<b>-1,700</b>	<b>0</b>	<b>3,160</b>	<b>-3,160</b>	<b>281</b>	<b>4,561</b>	<b>-4,280</b>	<b>54</b>	<b>9,083</b>	<b>-9,029</b>

**Net trade:** Exports less Imports

Blanks represent no data

Source: FAO (2005a)

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## 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							
Avian Influenza <sup>1</sup>	.../...		.../...	(1999)	(1999)	(1999)	
Bluetongue	000		-	-	-	-	
BSE <sup>2</sup>							
CBPP <sup>3</sup>	000		-	-	-	-	
Classical swine fever	.../...	.../...	.../...	.../...	368/14	250/6	
Foot and mouth disease	.../...	.../7	.../...	200/...	3,100/...	728/...	9,457/...
Lumpy skin disease							
Newcastle disease	.../...	.../...	.../...	.../...	(2000)	.../...	
Peste des petits ruminants	000		-	-	-	-	
Rift Valley fever							
Rinderpest	(1966)		-	-	-	-	
Sheep and goat pox	000		-	-	-		
Swine vesicular disease							
Vesicular stomatitis							

<sup>1</sup> Highly pathogenic avian influenza

<sup>2</sup> Bovine spongiform encephalopathy

<sup>3</sup> 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)

- A serious constraint to livestock production is the high animal mortality rate due to widespread incidence of animal diseases. More than 80% of chickens are said to die every year in upland villages, sporadic disease epidemics frequently kill most pigs, and the mortality rate of buffalo calves due to internal parasites is estimated at 30–40%.
- The Animal Health Division (AHD) in the Department of Livestock and Fisheries is responsible for disease diagnosis and control; quarantine; the veterinary extension network; and vaccine production, distribution and use with partial cost recovery. AHD, however, has only the most basic information system to record and analyze animal health status, and find it difficult to prioritize the use of scarce resources for animal diseases.
- One relevant AHD activity is the training and support of village veterinary workers (VVs), who are smallholders that assist in animal health matters at the village level and receive no official salary. To date, approximately 6,400 VVs have been trained and AHD intends to train at least one VV for each of the 12,000 villages in the country.

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