

# Cambodia beef cattle industry<sup>1</sup>

## Highlights

- Cattle and buffalo in Cambodia concentrated in the provinces along the Mekong River, are widely used in the agricultural sector for their draught power and manure.
- Cattle production is primarily based on mixed crop-livestock systems, predominately utilising local yellow breed and Haryana crosses. Very few commercial cattle farms have been developed in Cambodia.
- The commercial market chain, which has been developing for less than 15 years, involves collectors/brokers and traders before animals reach markets.
- Shortage of feed is a critical constraint for increasing cattle production and productivity.
- The processing sector is rudimentary, largely dominated by small scale slaughterhouses.
- Government policy currently focuses on developing cattle and buffalo for draught power – to increase rice production for self-sufficient food consumption.
- Cambodia is a net exporter and a transit country for cattle movement in the Mekong region.
- Unofficial exports of live cattle from Cambodia have reportedly increased in recent years in response to a growing demand from Vietnam. However, the Cambodian cattle industry has to compete with cattle and beef exports from other countries, including Australia.

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<sup>1</sup> Luong Pham (HELVETAS), Dominic Smith (UQ/HELVETAS), Soun Sotheun and Sau Vitau (DAHP) (2015), The Cambodian Beef Industry in “Regional Workshop on Beef markets and trade in Southeast Asian and China”, Ben Tre, Vietnam, 30th November – 3rd December, 2015

## 1. National industry

### 1.1. Background

The population of Cambodia is 15.14 million with over 80% depending on agriculture for their livelihood (World Bank, 2014). Using the official poverty lines introduced by the Cambodian government in 2013, the poverty rate in the country fell sharply from 47.8% in 2007 to 18.9% in 2012 (ADB, 2014b). However, regional differences persist, and about 90% of the poor live in rural areas.

Agriculture remains one of the dominant sectors in the national economy. Agriculture has grown at an average annual rate of 4.5% during 2008–2013 and contributed about 34% to the national gross domestic product during the same period (ADB, 2014a). According to the National Institute of Statistics (2013), the sector employed about 72.3% of Cambodia's workforce in 2012, mainly organised in small farms.

The livestock industry contributes to about 12.8% of the agriculture GDP and approximately 6 % of total GDP (MAFF, 2013). Most livestock are raised by smallholders.

Livestock, especially cattle, support the livelihoods of around 1.4 million smallholders by providing draught power, means of transport, organic fertiliser, meat, and as an asset and source of savings. Traditionally, cattle have been raised for draught power, and have poor body condition, low reproductive rates and a susceptibility to diseases (MAFF, 2013). Cattle raising has potential in Cambodia, but is largely constrained by limited extension and veterinary services as well as weak marketing channels throughout rural areas.

Cambodia is a net exporter and a transit country for cattle in the Mekong region. The production of livestock meets the relatively modest domestic demand for livestock products. Complex trade regulation both in domestic and export markets mean that exports through formal channels represent a small proportion of total exports.

Up until 2008, the majority of cattle flows through Cambodia were to Thailand after which the direction of cattle flows reversed. Due to the strong demand in the region particularly in Vietnam and China since 2008, cattle movement has been from Myanmar/Thailand, transiting in Cambodia, to Vietnam and China.

### 1.2. Macro production statistics

The statistics<sup>2</sup> in Table 1 provide an overview of the cattle and beef industry in Cambodia. Based on the data from Department of Animal Health and Production<sup>3</sup>, the country had 3.43 million cattle head in 2013 (including draught cattle which account for 40-50% of the total cattle number). Growth in cattle numbers in Cambodia is modest (1.1% per annum).

The official slaughter numbers were relatively low compared to other ASEAN countries, at over 100,000 head (growing at 3.3% per annum). The official slaughter levels are lower than the actual slaughtered as the figures may be underestimated, and illegal slaughtering is not included. The low turnoff rate clearly reflects the un-commercialised beef cattle systems in Cambodia. Due to the low turnoff rate, the growth in beef supply per capita in Cambodia increased only slowly over the period 2000-2013 (1.7%).

<sup>2</sup> Data is provided by Department of Animal Health and Production. Cattle numbers are reported at the end of each fiscal year (mid year) which are the same as the FAO data. Data on buffaloes and buffalo meat is not included.

<sup>3</sup> Department of Animal Health and Production is under the Ministry of Agriculture, Forestry and Fisheries.

**Table 1: Key facts about the industry 2001-2013**

		Compounded Annual growth (%)
Herd size (million head 2013):	3.43	1.4%
Turn off/slaughter (million head 2013):	0.11	3.1%
Turn off rate/Slaughter rate (% 2013)	3.2	1.9%
Cattle meat (thousand tonnes 2013) <sup>4</sup>	13	3.1%
Cattle meat supply (kg/person 2013)	0.87	1.7%

Source: adapted from MAAF (2013).

### 1.3. Macro drivers of the industry change

The cattle industry in Cambodia is still at an early stage of development. The industry is influenced by a number of drivers. Firstly, Cambodia is increasingly integrating with the region and has enjoyed a decade of macroeconomic stability and growth. The economic reforms initiated in the mid-1980s have progressed the country towards a market economy, including the liberalisation of domestic markets and privatisation of state-owned companies. The GDP growth was at 7.4% in 2013 (World Bank, 2014). Inflation has been low for a number of years, and the exchange rate is relatively stable. As incomes rise, the demand for meat, particularly beef in the country is growing which has stimulated domestic beef production.

Secondly, demand for cattle and cattle products from Vietnam and China has rapidly increased in the past few years. This includes the demand for feeder cattle with high growth potential for feedlots in these countries. As a result, the development of the cattle industry in Cambodia requires significant intensification to consistently supply cattle. However, cattle production in Cambodia is known to be limited by poor husbandry and animal health practices (MAFF, 2013). This affects the country's ability to legally export cattle unless Cambodia takes concrete steps, in particular to create an FMD-free zone (Ear, 2005).

### 1.4. Cattle and beef production

Figure 1 below indicates that the Cambodian cattle herd increased from 2.9 million head in 2000 to 3.4 million head in 2013. However, cattle numbers have steadily declined since 2009 mainly due to mechanisation in cultivation and transportation (MAFF, 2013). This also increased the slaughter number (Figure 1).

The slaughter number<sup>5</sup> shows a fluctuation but in an increase trend. The official slaughter number reached a peak at 115,973 head in 2011, and then dropped to 108,272 head in 2013. The sharp increase in the turnoff number since 2008 was due to: (1) increase in the demand from Vietnam and China; (2) increased mechanisation reduced the need for draught cattle, thus more cattle were brought for draught. However, the official figures might be underestimated and did not record illegal slaughtering (MAFF, 2013).

The official beef production figures were based on the slaughter number. The average weight per head for this estimation was 250 kg, with carcass weight 120 kg/head (MAFF, 2013). The cattle meat production increased slowly from 8,764 tonnes in 2001 to 12,992 tonnes in 2013 (Figure 1). These official figures seem to be understated as the turnoff number was underestimated, and illegal slaughtering was not recorded.

<sup>4</sup> The cattle meat production figures were calculated from reports on the number of cattle slaughtered. Average cattle brought for slaughter is 250kg/head with carcass weight 48%, therefore the average carcass weight is 120kg/head.

<sup>5</sup> Official figures reported from Provincial Offices of Animal Health and Production

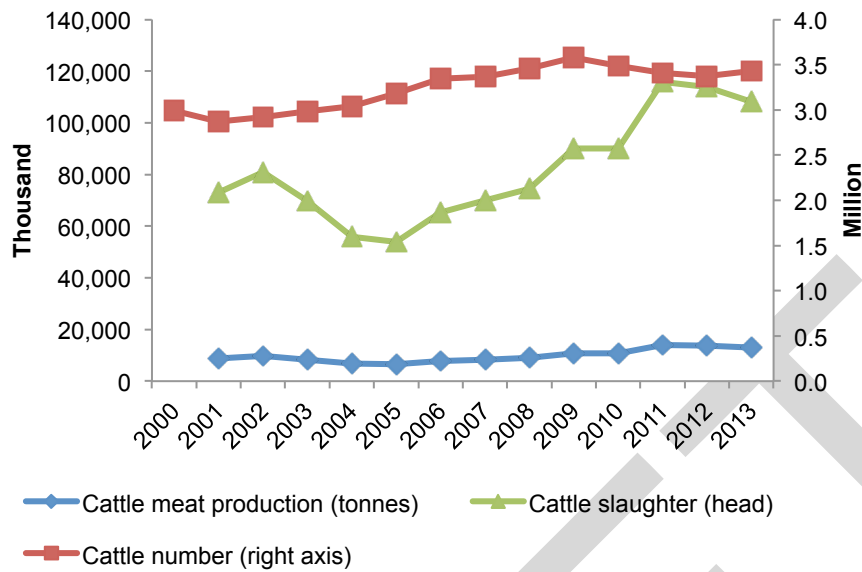


Figure 1: Cattle production in Cambodia

Source: MAFF 2013

## 2. Regional distribution

Cambodia is divided into 20 provinces and 4 municipalities. Provinces and municipalities have an administrative centre and are collectively divided into 185 districts and 1,609 communes.

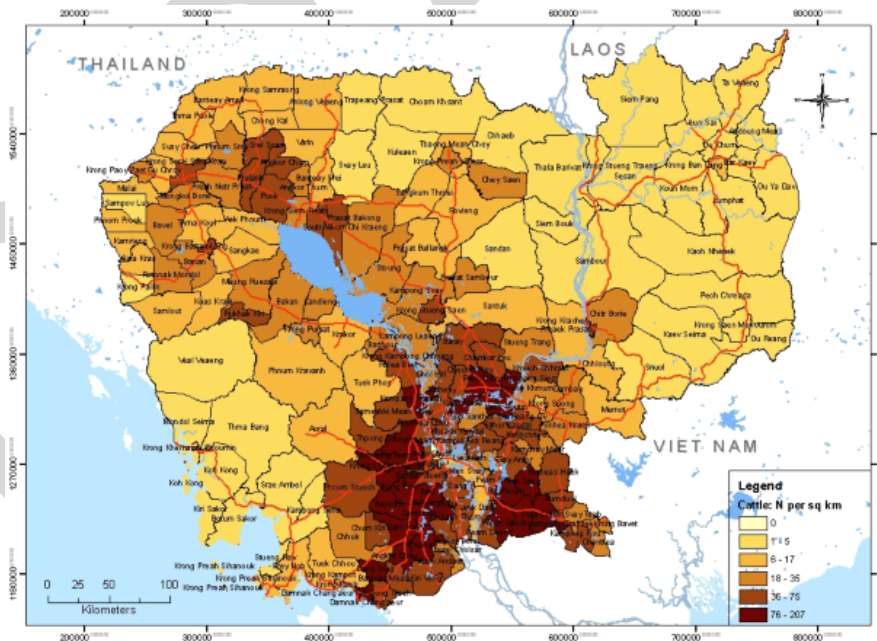


Figure 2: Cattle density in Cambodia.

Source: Department of Animal Production and Health (2012)

Cattle are distributed throughout the country as shown in the cattle density map (number of cattle per square km<sup>2</sup>) in Figure 2. Cattle are highly concentrated in the rice growing provinces of southern Cambodia. This is reflected by the fact that cattle are predominantly kept for draught power, soil preparation and manure production for rice growing.

Takeo province in the southern part of the country has the largest and most dense cattle population at 106.0 cattle per km<sup>2</sup>, followed by Kep at 84.6 head per km<sup>2</sup> and Prey Veng at 67.3 head per km<sup>2</sup> (Sitha, 2012). The provinces with lowest cattle densities are Mondulkiri at 1.0 head per km<sup>2</sup> and Koh Kong at 0.6 head per km<sup>2</sup>. [could include table as you did for Myanmar]

### 3. Policy

Recognising that poverty reduction is an integral part of social reconciliation and key to maintaining political stability, the government of Cambodia declared poverty alleviation as its single most important long term goal in 1996, and the eradication of poverty as the central thrust of the Socio-Economic Development Plans (SEDP I and II).

Crops and livestock are central to achieving self-sufficient food consumption. Most government policies have focused on increasing crop production and food security, including rehabilitating selected irrigation and drainage systems and physical infrastructure, promoting fertiliser use and accelerating expansion of the cultivation of abandoned land (Vuthy & Ra, 2011).

For the livestock sector, even though it is recognised that livestock play an important role in food security and rural household economy, there is a lack of clear direction or strategy for cattle development in Cambodia. The priority issue of the government is animal health service and disease prevention and control, concentrating more on pig and chicken industries. There are some policies that address issues such as vaccination and marketing arrangements for cattle and buffalo movements between Cambodia and its neighbouring countries.

With respect to cattle policy, the primary objective of government is to ensure adequate supply of draught power for rice production to ensure food security. To this end, government imported Hariana genetics in the 1960s and Brahman genetics in the 1980s. While this policy objective was met, this was not followed by additional support to maintain the introduced breed types. For instance, except for the early years, there have been no active extension activities to help owners adapt to the higher nutritional demands of pure or crossbred Brahman.

The Government has also put the cattle industry in the prioritised list of the Governmental Rectangular Strategy for Growth, Employment, Equity and Efficiency. However the Rectangular Strategy does not contain any performance indicators or benchmarks, only vague commitments for its implementation.

### 4. Cattle marketing and trade systems

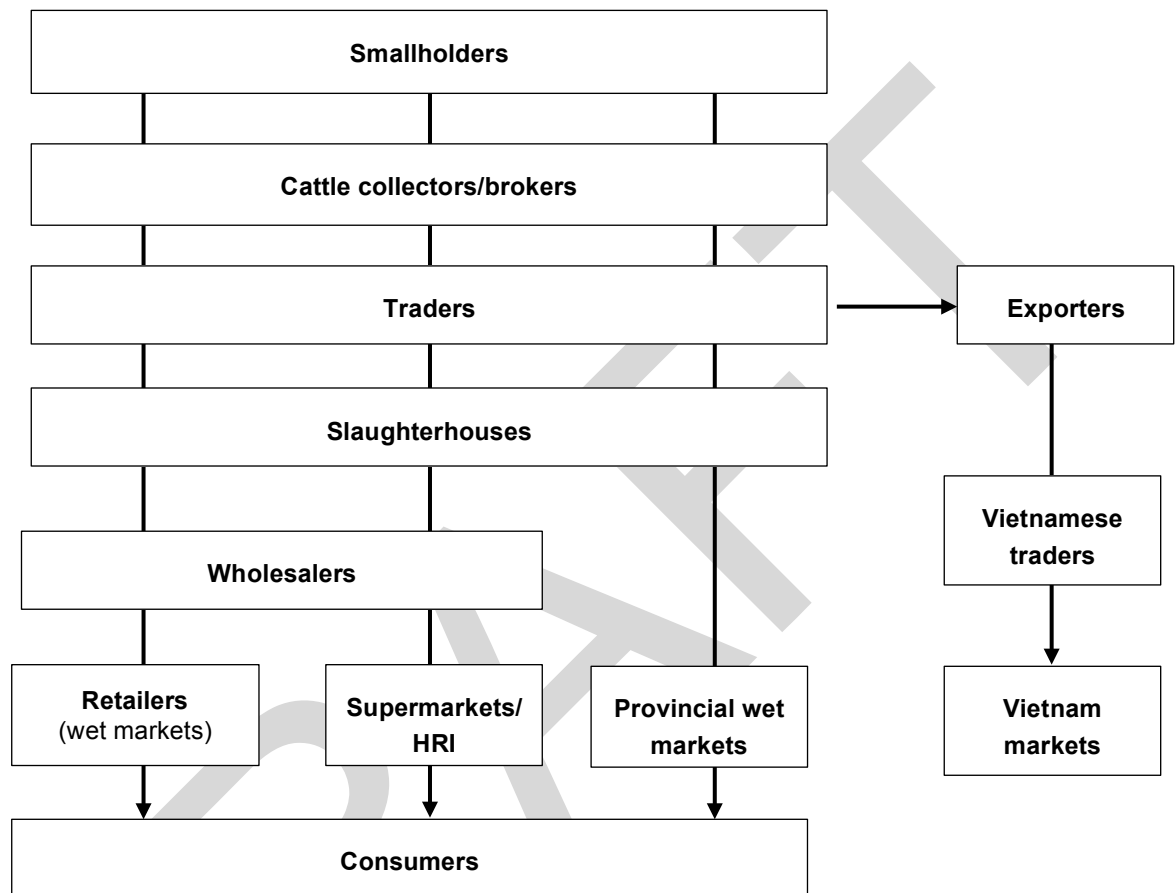
In Cambodia, cattle production is based on mixed crop-livestock systems smallholders. The commercial market chain for cattle in Cambodia has been operating for only about 15 years.

Due to the difference in market size and demand, market chains at provincial markets are different from the Phnom Penh markets. For the Phnom Penh markets, cattle comes through all stages of the market chain from smallholders, collectors, traders, slaughterhouse, wholesalers, retailers and consumers (Figure 3). In provincial markets there is wholesaler stage so after slaughter beef goes directly from retailers to consumers.

Marketing at the commune/village level is conducted by cattle collectors who often live in the same village as cattle smallholders. Transactions are in cash based on visual estimates of meat yield of the cattle. Traders often buy 1-5 cattle per month, and their profit is based greatly on their knowledge and experience in buying cattle from farmers.

There are different levels of cattle traders in Cambodia. All traders who buy and sell cattle and cattle products in Cambodia are required to pay certain taxes and fees to the Ministry of Agriculture, Forestry and Fisheries (MAFF). These fees must be paid on a per-head basis in order for the trader to be issued with a movement permit from District Office of AHP. Small traders often travel between communes and districts, and have a network of collectors at village level. Each small cattle trader deals with 5 to 10 cattle collectors. In practice, small traders don't get a cattle movement permit, but a certificate of ownership is issued by village

head or commune leader. They buy and sell 15-20 head per month, and pay cash to collectors after reaching an agreement.



**Figure 3: Cattle market chain in Cambodia.**

Source: adapted from Muniroth et al.(2014)

Medium-sized inter-provincial traders are also required a cattle movement permit from DAHP to trade cattle across a provincial border or transport cattle to Phnom Penh. They rely on a network of 5-10 small traders but regularly buy cattle directly from collectors. On average, inter-provincial traders trade 60-100 head per month.

Large traders are required to apply for a quarterly license from the MAFF to conduct inter-provincial or cross-border movement of cattle. The license limits trading to a maximum quota of 1,000 cattle/buffaloes per quarter. Most of the traders involved with the transit of cattle from Thailand/Myanmar to Vietnam or in the export of local cattle from Cambodia to Vietnam will purchase a movement permit from large livestock trading companies instead of DAHP. These trading companies are highly influential through high level connections with the Ministerial level and thus offer some protection for traders operating under their system.

## 5. Inputs sector

### 5.1. Feed

Due to climatic variability and arable land devoted primarily to rice production, cattle in Cambodia experience a year-round feed deficiency. During the rainy season (typically from

June to November), rice growing occupies a large portion of arable land, cattle are typically tethered and fed with native grasses by grazing along the roadside.

During the dry season (typically December to May), grasses are scarce, and cattle are usually fed with rice straw and tethered on rice stubble. Tree forages such as bamboo or tamarind are sometimes fed to working animals during the cropping period. In both seasons, rice straw provides roughage but is of limited nutritional value to cattle. These feeding regimes are low in protein and high in crude fibre (Devendra & Leng, 2011). Low nutrition limits growth body condition, reproduction and productivity and increases susceptibility to disease (Young et al., 2013).

Nutrition has been identified the single most problem contributing to low productivity of cattle in smallholder systems in Cambodia. Efforts to improve the digestibility of rice straw and improved N intake have not been successful due smallholder perceptions on returns on labour. Planting forages has been suggested for smallholder farmers to improve their cattle production (Miranda et al., 2011) but is also seen as labour intensive.

## 5.2. Breeds and breed improvement

Cambodian cattle are predominantly *Bos indicus* and consist of the local breed, Haryana and crossbred (local breed crossed with Haryana), and other breeds such as Brahman. The local yellow cattle, called Gor Srok or Gor Khmer, are most common breed as they are relatively tolerant of low maintenance, poor feed supply and inadequate disease prevention (Serey et al., 2014). The local breed cattle are yellow in colour, having a small hump, and typically mature weight of between 250-300 kg.

Haryana cattle, introduced from India, are tall and narrow framed with a hump, usually white in colour. The Haryana crosses typically reach around 400-450 kg. Crossbred (Haryana x Local cattle) are found in Kampong Cham, Kandal and other provinces along the Mekong River where forages are abundant year round. Brahman crosses are less adapted to Cambodian conditions as they have higher feed requirements and seem to have poor breeding ability.

Breeding is often from mating of free-roaming cattle where bulls are not selected. The smallholders' preferred breeding approach is to use selected superior bulls, often sourced from within the village with a fee for service (fee vary between USD4 to USD6.5 per service depending on the area and quality of the bull).

The predominance of the local cattle breed is possibly due to a lack of breeding activities such as artificial insemination and breeding stock selection. Artificial insemination is not popular among Cambodian farmers. Besides, local breeds also receive a higher price which is a disincentive for smallholder farmers to consider breeding (Muniroth et al., 2014).

## 5.3. Disease and veterinary service

Cattle production in Cambodia is constrained by trans-boundary animal diseases (TADs) including foot-and-mouth disease (FMD) and haemorrhagic septicaemia (HS). Vaccination is provided or subsidised by the Department of Animal Health and Production (DAHP) Services twice a year.

DAHP and its provincial offices of animal health and production (OAHP) are responsible for animal health services and have the major role in the management of animal health disease outbreaks in Cambodia. Veterinary epidemiological and diagnostic services within DAHP are provided by the National Animal Veterinary Research Institute (NaVRI). The DAHP however has limited transport and insufficient skilled personnel in its central and provincial offices. Furthermore its limited budget is mostly expended on operating State livestock farms and in salaries. Private veterinarians are very few and constrained by a lack of access to vaccines and drugs, inadequate cold-chain facilities, and lack of technical knowledge.

The government has established a system of village animal health workers (VAHW) and a disease control program to support major disease prevention in cattle and buffaloes. The DAHP is represented by a VAHW in almost every village (12,474 VAHWs in 2010) (MAFF, 2013). They work closely with village heads to implement animal health campaigns and

activities recommended by MAFF and DAHP. As farmers pay fees for service and drug delivery, the VAHW system is designed to be market-based and sustainable (Stratton, 2011). The study conducted by Stratton (2011) suggested that VAHWs had good contact with farmers (61.5% of VAHWs visit more than one farm each day), and high rates of disease reporting (72.5% of VAHWs report diseases immediately and 73.6% report monthly). However, the VSHW income from this work is low, with about half of VSHWs earning 20-40% of their household income, and only 1.1% of VSHWs survive solely from this work. This indicates the unwillingness to pay of farmers for these services.

## 6. Cattle production systems

Cattle production in Cambodia is primarily raised in traditional mixed crop-livestock systems by smallholder farmers. An average smallholder farmer raises between 2 to 10 head. Approximately 90% of cattle and buffalo is produced by smallholder farmers. It is reported by an official from Department of Animal Health and Production that there are only around 60 large commercial farms around the country.

Harding et al. (2007) reported that there are two basic systems of cattle production in Cambodia, but each has the same constraint.

**In the lowland areas (90% of cattle)**, the land is dominated by rice. Cattle spend most of the wet season tethered near the house or on the side of the roads to avoid damaging the rice paddy. In the dry season, cattle in the lowland areas graze on the rice stubble, where they actually gain condition. This low input system is characterised by low output and poor reproductive performance. There is more land available **in upland areas**. However, a significant proportion of this land is unavailable for cattle production because the government has conceded it to private companies. This is one of the reasons that in spite of the land availability, only around 10 per cent of total cattle are in upland areas.

The single largest constraint faced by cattle producers in Cambodia is feed availability. This is linked to the labour constraint faced by smallholders and the availability of grazing land. A significant expansion in cattle numbers in the country is unlikely to be a viable option unless there is a significant intensification of production and a shift away from the current smallholder subsistence based production system (Harding et al., 2007).

To increase cattle production and incomes, Miranda et al. (2011) recommend two management strategies for smallholder farmers in Cambodia. The first is to fatten cattle for two to four months before sale to increase live weight, condition, meat yields and sale price. The second is to improve cow-calf production and therefore calving rates, Good quality feeds must be provided to cows during the lactation [especially early lactation]. Weaning of calves at an early age (40 to 70 days) will help cows to return to oestrus and conceive during the breeding season (Miranda et al., 2011).

## 7. The processing sector

The cattle processing sector in Cambodia is dominated by a number of small slaughterhouses. In 2014, there were 25 slaughterhouses that have hygienic standards (Royal Government of Cambodia, 2014). The slaughterhouse in Phnom Penh is licensed by DAHP and in a province by PDAHP. Usually cattle arriving at a slaughterhouse are held overnight and slaughtered early in the morning. Cattle are slaughtered in traditional ways using simple tools such as knives and axes. The cattle are not weighed before slaughter, but the carcass is weighed before distributing to wholesalers. Carcasses are usually divided [quartered / halved, butchered?] for transport and distribution to markets.

Slaughterhouses are service kill plants for integrated butcher-traders. Service fees in Phnom Penh were about 20,000 Riels (US\$5) per head, while provincial slaughterhouse charges are between 10,000 to 15,000 riels per head (Muniroth et al., 2014). There are two large slaughterhouses in Phnom Penh (Boeng Salang and Chroy Chang Va) and four smaller slaughterhouses. Chroy Chang Va processes around 300 to 400 cattle per day, while Boeng Salang slaughterhouse slaughters 120 to 150 head per day. The cattle slaughtered in Phnom



Penh tend to be lighter animals while the better types are exported to Vietnam. About 600 head are slaughtered in Phnom Penh per day.

A veterinarian is present at the slaughterhouse to inspect cattle before slaughtering and stamping on beef after slaughtering. A certificate to food safety is also provided to ensure that the meat is safe for consumption. Provincial veterinarians charge 3,000 riels per head and tax 3,500 riels per head. Poor hygiene and arrangement at provincial slaughterhouses are of concern. Some slaughterhouses do not have any effluent drainage systems of water for cleaning.

Post-slaughter, there appears to be little or no differentiation between cuts and offal as meat and offal are of equal value to consumers for their flavour in local dishes and protein value. Also, there appears to be little differentiation in terms of types of cattle or weight, age or sex of animals to be slaughtered (Harding et al., 2007). That is, processing does not target animals with certain characteristics for local consumption.

## 8. Beef markets and consumption

After slaughtering, beef and offal are distributed through wholesalers (in Phnom Penh) and retailers throughout the country. The wholesalers/retailers link to the butchers through networks.

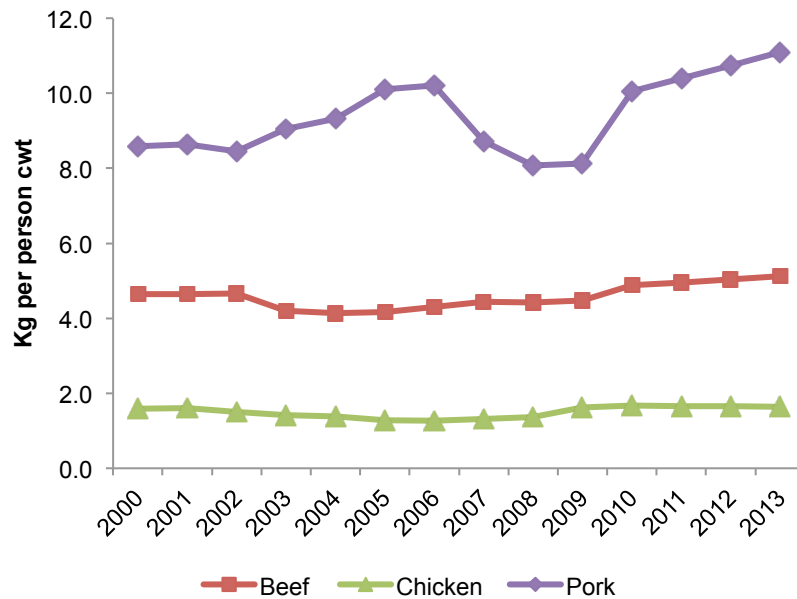
Phnom Penh is the largest market for beef in Cambodia. Wholesalers buy the whole carcass from butchers after slaughtering and manage their own butchering for different markets. Beef is distributed to retail outlets early in the morning. Two major types of retail outlets in Phnom Penh are wet markets and supermarkets. Supermarkets account for a small market share compared to wet markets and restaurants.

In the provinces, carcasses are usually cut after slaughtering for transport and distribution to retailer markets. Beef is distributed and sold to consumers on the same day.

In wet markets, beef sold to consumers for in-home consumption is generally cut off in chunks from parts of carcasses. There appears little differentiation between beef products. The only cut that is readily identified is fillet due to its value to local niche local consumers and foreigners. The absence of different products is due to types of dishes that are cooked. In Cambodia, much of the beef is consumed in minced, shaved and cubed (Harding et al., 2007). Meat from any part of the carcass can be used in these dishes. A common use of beef is Samlaa Ko Phet or Tamarind Beef Curry using beef cut into thin strips. Loc Lac is another common dish that uses marinated cubed beef cooked on skewers. Beef is also used in noodle soup.

The strength of the current beef market chain is the speed with which product is used by final consumers and because it is low cost and operationally efficient. This ensures the maintenance of reasonable food safety outcomes. However, the lack of differentiation of beef products, refrigeration and uncertainties about food safety as well as lack of a grading system and common 'beef language' (cut descriptions) are all contributors to the fact that western hotels and restaurants import frozen boneless beef.

Figure 4 shows that meat consumption has increased slightly from 4.6 kg per capita per year in 2000 to 5.1 kg per capita per year in 2013. Beef consumption is higher than chicken, but only half of pork consumption.

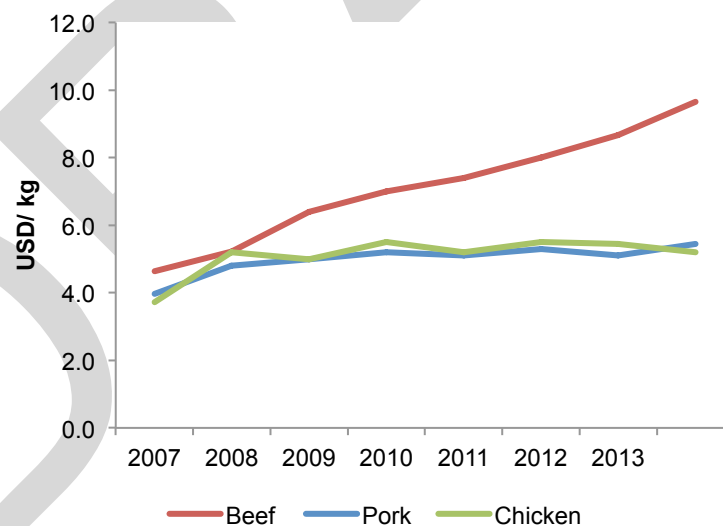


**Figure 4: Meat consumption in Cambodia**

Source: adapted from MAFF (2013) and FAO (2014)

## 9. Beef prices

The increased demand for live cattle from Vietnam and China as well as growing demand in urban areas has put a strong pressure on beef prices in Cambodia in recent years.



**Figure 5: Meat retail prices in Cambodia (2010 constant prices)**

Source: adapted from MAFF (2014)

Figure 5 shows retail meat prices in Cambodia in the period 2007-2013. Beef prices<sup>6</sup> increased sharply compared with those of the most highly consumed pork. Between 2007 and 2014, beef prices increased at an average of 9.7% per year, while pork and chicken prices remained

<sup>6</sup> The data was based on figures from the Ministry of Agriculture, Forestry and Fisheries, 2014.

stable. The beef price increases conforms to regional and international trends, which suggest an integrated cross-border beef market.

## 10. International trade

### 10.1. Beef imports

Industry officials report that frozen boneless beef is imported from Australia for western hotels and restaurants, where quality is important and local cattle do not meet quality requirements for the cuisine. However, the lack of formal data on this trade precludes quantification of volumes.

### 10.2. Live cattle trade

There are two types of cross-border live cattle movement in Cambodia: transit movement of cattle between Thailand and Vietnam, and export of local cattle from Cambodia to Vietnam. Traders involved in cross-border movement of cattle are supposed to obtain a movement permit from DAHP. However, most traders involved with the transit of cattle from Thailand/Myanmar to Vietnam, and in the export of local cattle will purchase a movement permit from large livestock trading companies. These trading companies will help traders to move their cattle to the desired market without interruption.

Transit of cattle from Thailand/Myanmar, through Cambodia to Vietnam:

Since 2008, cattle from Thailand/Myanmar have transited through Cambodia to Vietnam. The main entry sites for cattle moving from Thailand to Cambodia are Bantey Meanchey, Oddar Meanchy and Battambang provinces. In each of these provinces, there are several entry points along the border. The majority of cattle imported for transited to Vietnam use the Or Bey Choun and Nang Chan routes. Normally, transit through Cambodia takes about one day from the Thai border to the Vietnam border depot in the south-eastern Cambodian provinces of Kampot, Takeo, Svay Rieng and Kampong Cham (Figure 6).



**Figure 6: Pathways of live cattle trade.**

Source: Cock at el (2009)

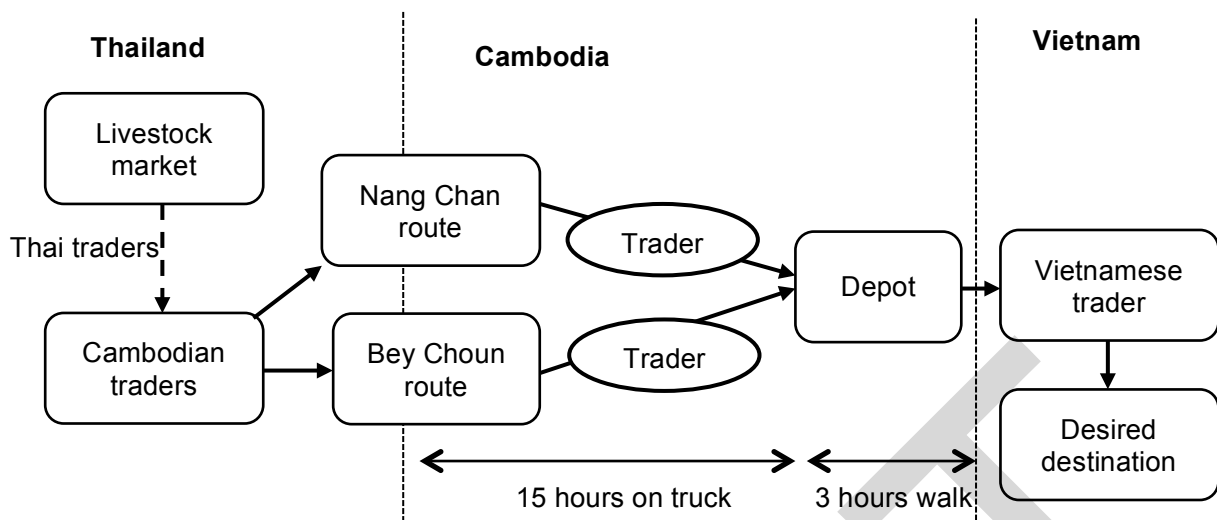
Cambodian traders are assisted by Thai local traders to source cattle from Thailand. The Cambodia traders often pay for the animals in full before they are taken over the border. Thai

villagers are usually hired to walk the cattle over the border into Cambodia. On arrival at the Cambodia side of the border, the animals are checked by provincial veterinary officials before loading into large trucks for moving to the Cambodia-Vietnam border. It often takes around 15 hours to arrive at the destination.

On the arrival of the Cambodia-Vietnam border, the cattle are moved into a depot, which is located close to the border. Vietnamese traders can come and purchase cattle from these depots. Cambodian villagers are hired to walk the cattle from the depot to the Vietnamese side of the border (three hours). The cattle are then moved to a government designated quarantine area where the animals are kept for disease control purpose.

the cattle trade into Vietnam is mostly unofficial. Cattle sold unofficially transit uninterrupted through the Vietnam border, whereas animals passing through official gates are required to undertake 14 days quarantine within Vietnam, and traders pay fees to keep the cattle at the quarantine area. In addition, the recent spread of FMD also affects the formal trade. The whole movement route is presented in Figure 7.

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**Figure 7: Cattle movement from Thailand transit through Cambodia to Vietnam.**

Source: adapted from Cocks et al. (2009)

In 2009, about 20 trading companies were involved in the export of up to 150,000 cattle per year into Vietnam. It is estimated that during 2010-2012, about 1,000- 1,500 head per week were imported from Thailand through Banteay Meanchey province and 500-700 head per week through Battambang province for export to Vietnam. However, the figure has dropped dramatically to about 150 head per week in Banteay Meanchey province, and about 100 head through Battambang since 2013. This equates to a dramatic decrease from 110,000 head in 2012 to about 13,000 head in 2013.

The decline in the number of cattle imported from Thailand for Vietnam markets is due to high cattle prices in Thailand and Myanmar. In addition, Vietnam has increased imports of cattle from Thailand through Laos, and there has been a rapid increase in the cattle imports into Vietnam from Australia.

#### Export of Cambodian cattle to Vietnam

Cambodian cattle are also exported to Vietnam. The official figure reported by the Department of Animal Health and Production that around 20,000 feeder and slaughter cattle were exported to Vietnam in 2013. According to Cocks et al. (2009), the pathways of movement of local cattle are similar to that the transit cattle. The route for cross-border movement between Cambodia and Vietnam is similar to that of the transiting cattle. The trade systems to source local cattle from villages/ communes are described in Section 4: cattle marketing and trade systems.

It is expected that in the future, the cattle industries in the region will become more specialised and commercially oriented. The Vietnam market will demand higher quality feeder cattle for feedlots. To be competitive, Cambodia will need to provide a large number of quality cattle at similar weight and specifications for entry into feedlots. It may be hard for Cambodian smallholders to produce cattle that can compete with feeder or slaughter cattle from Australia – on either “quality” or yields and processing efficiencies. Therefore, there is a need to accurately analyse and predict the impact of changes and other changes of basic conditions on industry development, and also on livelihoods of smallholders and other stakeholders involved in the cattle and beef sector in Cambodia.

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