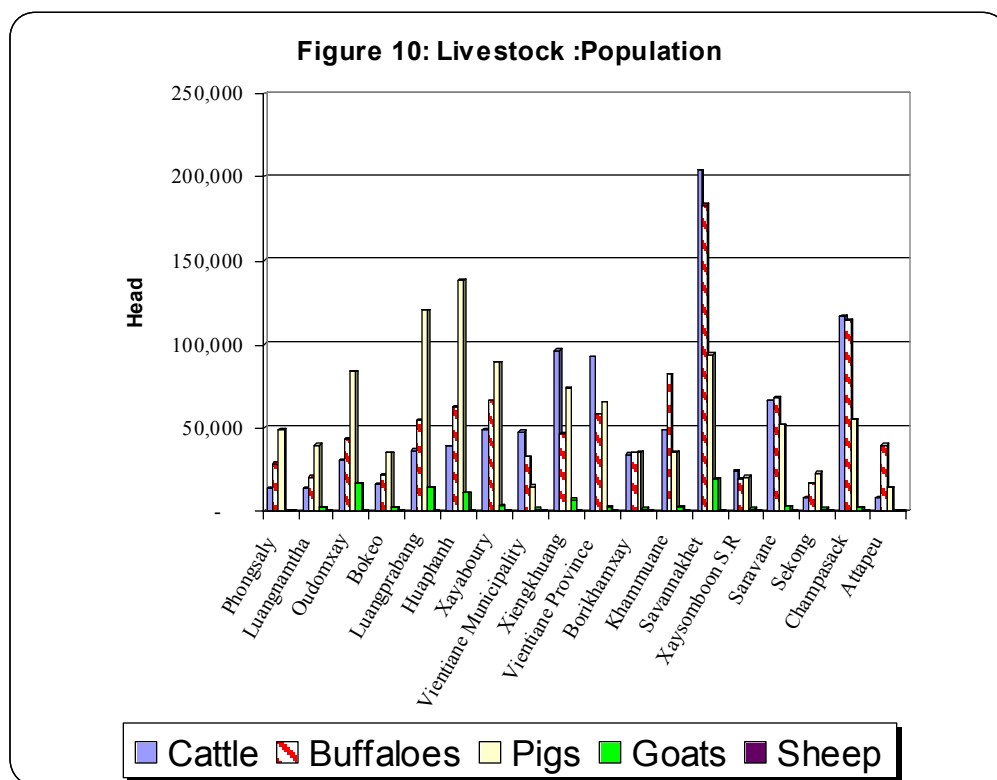


## Profile of the Lao People's Democratic Republic (Lao PDR)

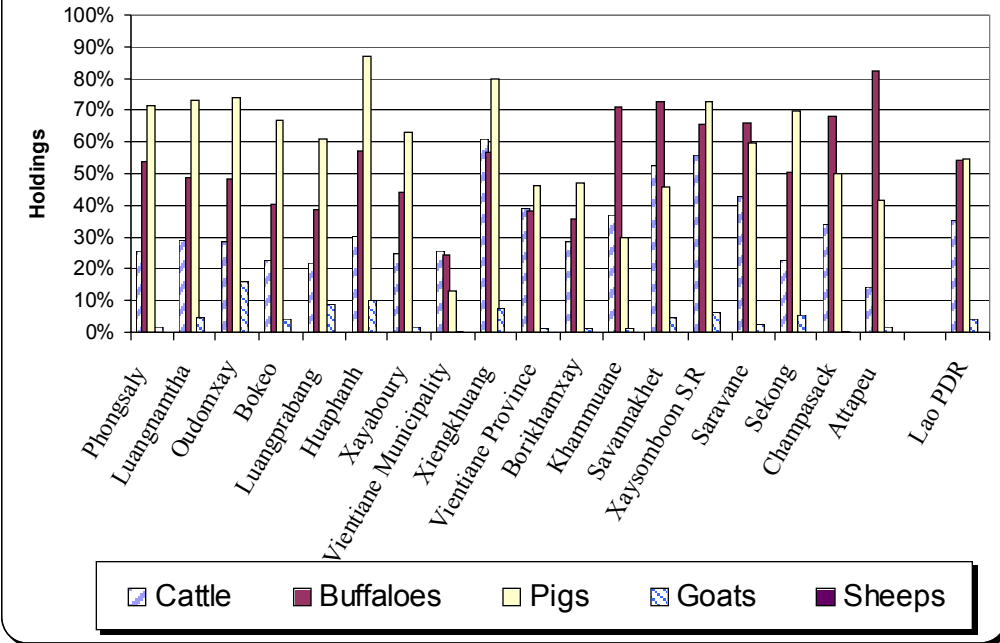
### III. Farming Systems - Livestock:

According to an Agricultural Census conducted in 1999 (Feb. 22 - March 19), the number of animals in the Lao PDR is as follows:

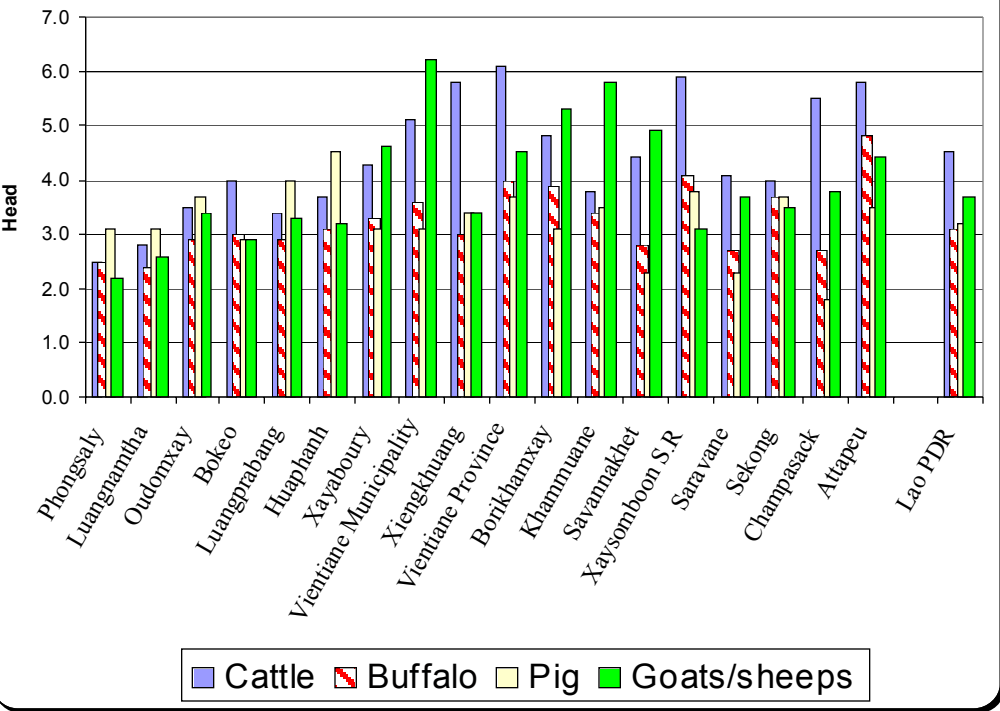
|                                | Lao PDR   | North     | %<br>distrib<br>ution | Centre    | %<br>distrib<br>ution | South     | %<br>distrib<br>ution |
|--------------------------------|-----------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|
| <b>Cattle</b>                  | 944,134   | 198,632   | 21.0                  | 546,471   | 57.9                  | 199,031   | 21.1                  |
| <b>Buffaloes</b>               | 991,945   | 296,579   | 29.9                  | 456,965   | 46.1                  | 238,401   | 24.0                  |
| <b>Pigs</b>                    | 1,036,330 | 553,779   | 53.4                  | 338,773   | 32.7                  | 143,778   | 13.9                  |
| <b>Goats</b>                   | 94,438    | 50,472    | 53.4                  | 36,271    | 38.4                  | 7,695     | 8.1                   |
| <b>Other<br/>livestock</b>     | 39,918    | 26,075    | 65.3                  | 10,880    | 27.3                  | 2,963     | 7.4                   |
| <b>Local chickens</b>          | 9,379,023 | 3,759,889 | 40.1                  | 3,881,037 | 41.4                  | 1,738,097 | 18.5                  |
| <b>Ducks</b>                   | 1,351,294 | 321,669   | 23.8                  | 711,985   | 52.7                  | 317,640   | 23.5                  |
| <b>Commercial<br/>chickens</b> | 289,666   | 6,738     | 2.3                   | 278,342   | 96.1                  | 4,586     | 1.6                   |
| <b>Other poultry</b>           | 194,495   | 91,606    | 47.1                  | 90,839    | 46.7                  | 12,050    | 6.2                   |



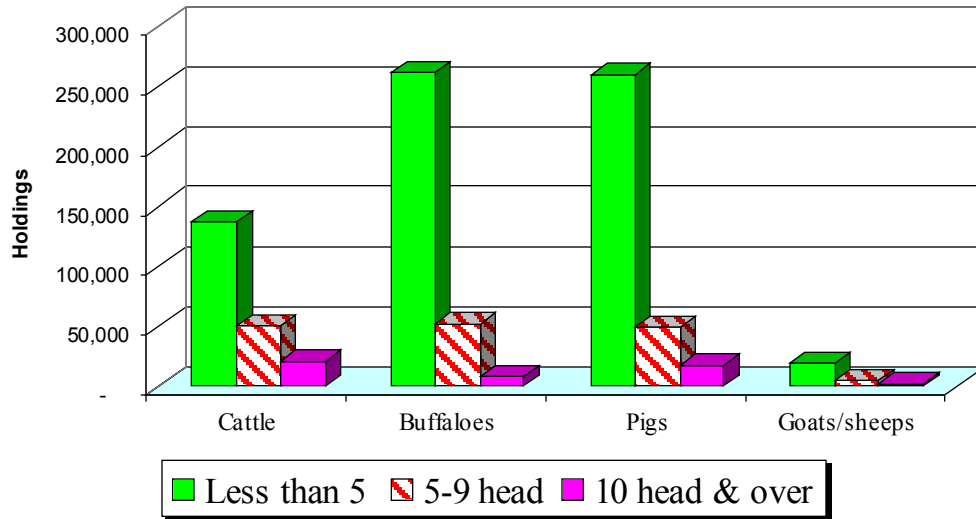
**Figure 11: Holdings with livestock**



**Figure 12: Average herd size**



**Figure 13: Holdings with different herd sizes**



## Number of Cattle:

In March 1999, there were an estimated 944,134 cattle in the whole country.

In the Lao PDR, there are about 592,650 holdings with livestock, 208,140 of which (35%) raised cattle.

At the provincial level, Xiengkhuang province had the biggest percentage (61%) of holdings rearing cattle. This is followed by Xaysomboon S.R with 56%, Savannakhet with 52%, Saravane with 43%, Vientiane province with 39%, Khammuane with 37%, Champasack with 34%, Huaphanh with 31%, Luangnamtha and Borikhamxay both with 29%, and Oudomxay with 28%. Attapeu province with only 14% of total holdings rearing cattle has the smallest number of holdings. (See Figure 14).

Savannakhet province, with 22% of the cattle population, has the most cattle. In second place come Champasack with 12%, followed by Xiengkhuang and Vientiane provinces (both with 10%). Saravane province comes next with 7% then Xayabury, Khammuane and Vientiane Municipality (all with 5%) and Huaphanh, Luangprabang and Borikhamxay (all with 4%). Luangnamtha, Phongsaly, Attapeu and Sekong provinces (all with only 1%) of the total population each have the smallest number of cattle. (See Figure 15).

In the whole country, 66% of the cattle owners had less than five head of cattle. 10% of the total number of holdings with cattle had ten or more animals. (See Figure 16.)

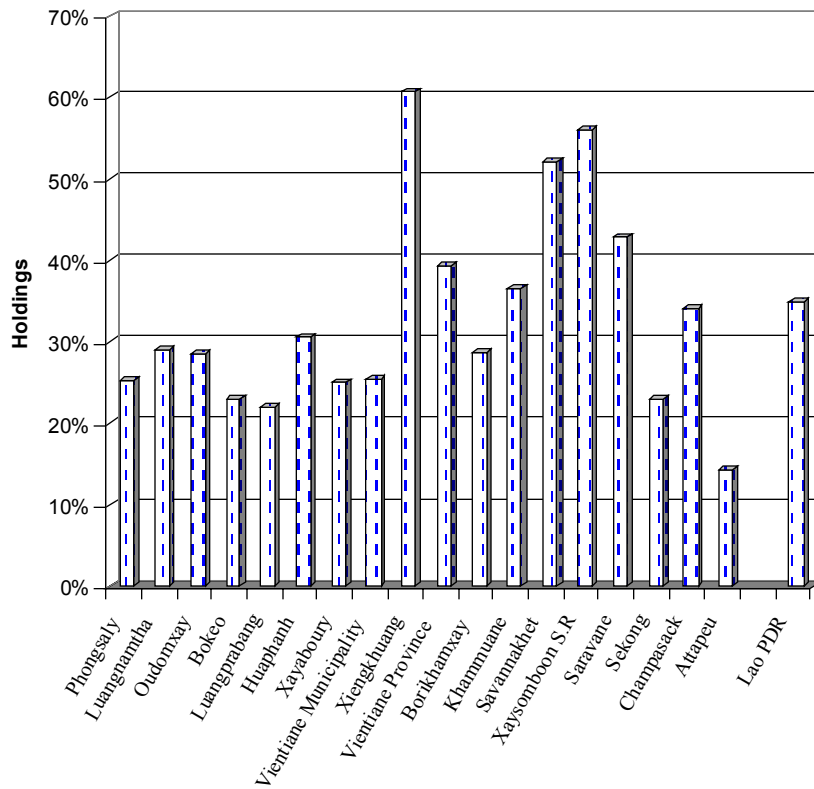
In both the Central and the Southern Regions the average herd size was 4.9. This is above the national average of 4.5.

In Vientiane province the average herd size was 6.1 animals. This was higher than the Northern, Central, and Southern Regions and the national levels (3.5, 4.9, 4.9 and 4.5 respectively).

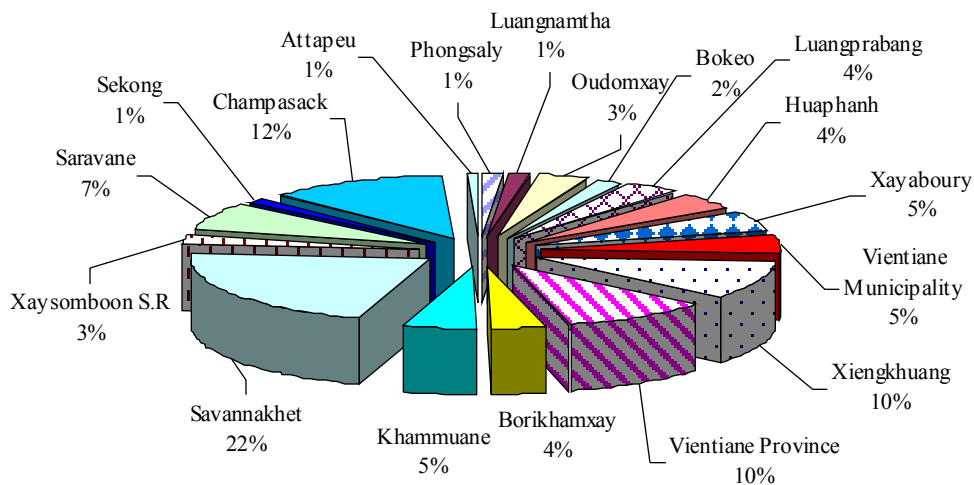
Phongsaly province had the smallest average cattle herd size (2.5). Most of the rest of the country, Savannakhet, Xayabury, Saravane, Bokeo, Sekong, Khammuane, Huaphanh, Oudomxay, Luangprabang, and Luangnamtha provinces, had less than national average cattle herd size. (See Figure 17.)

In all the provinces, 12% of cattle are under one year of age. About two thirds of cattle are 2 years and over. Of these, 151,962 were males and 455,550 were females. Thus, females outnumber males by 3.0 to 1. (See Figure 18.)

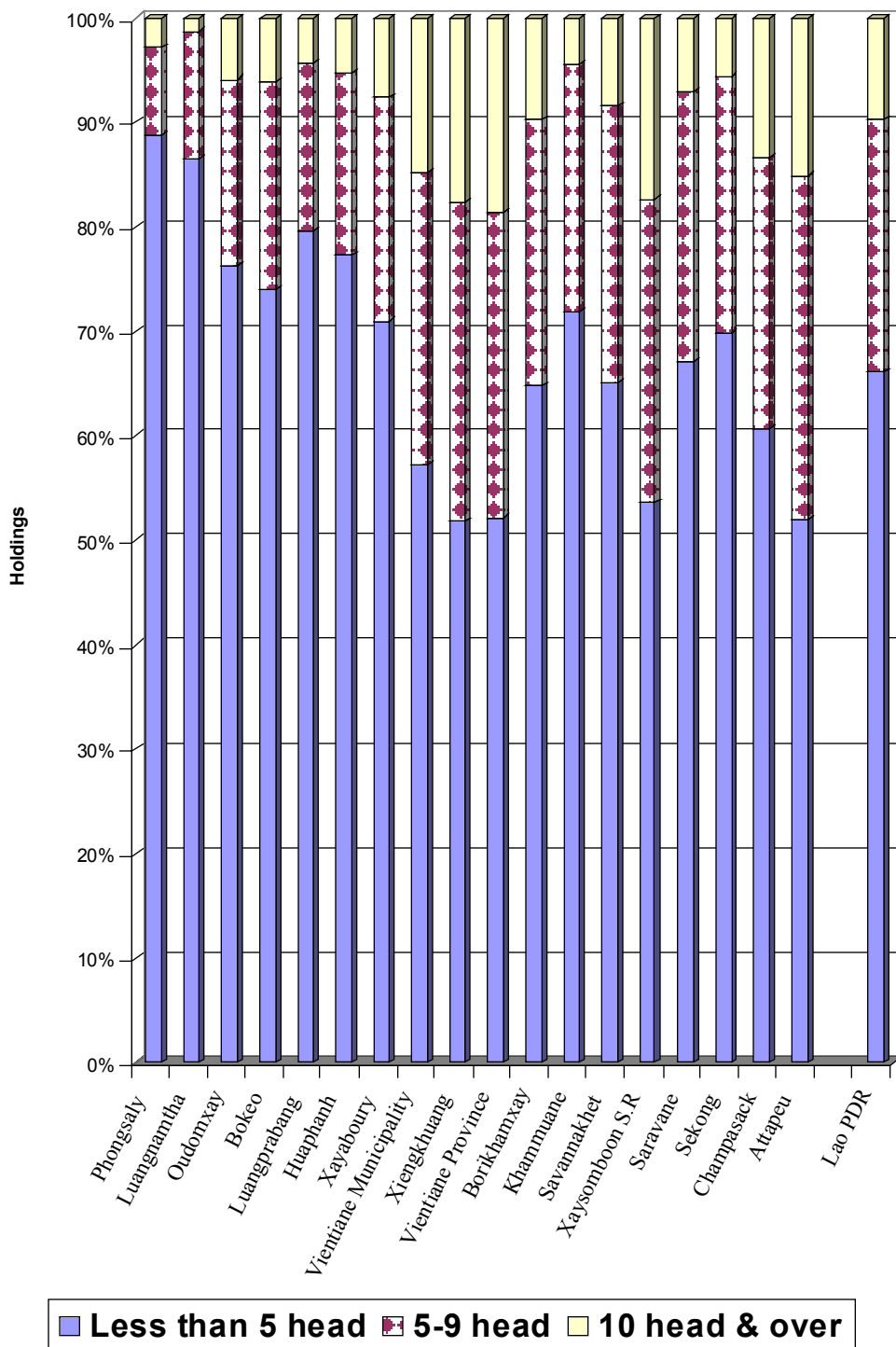
**Figure 14: Holdings with cattle, 1999**



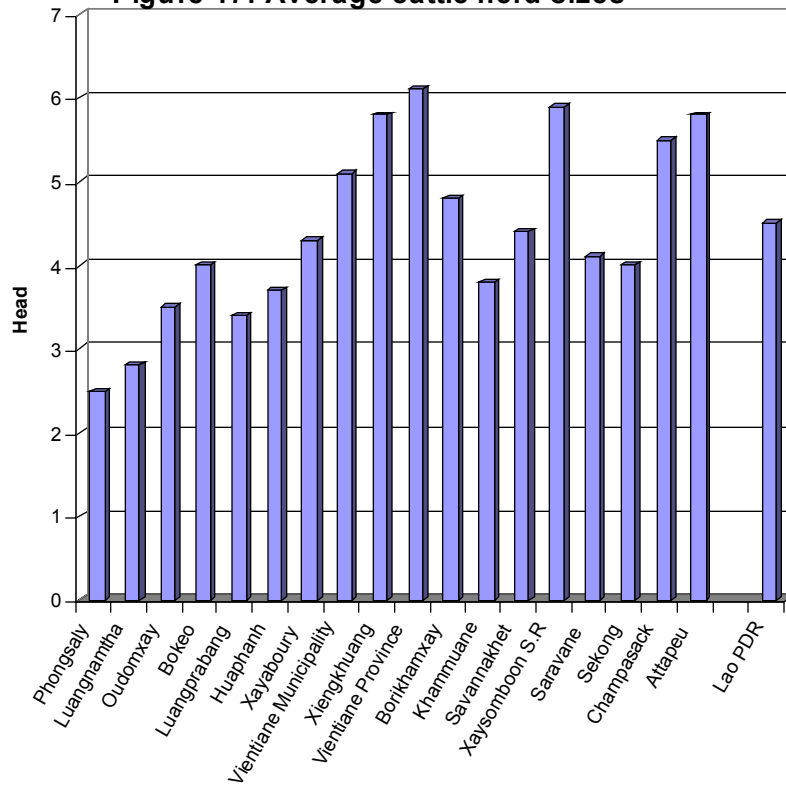
**Figure 15: Percent distribution of cattle in Lao PDR, 1999**



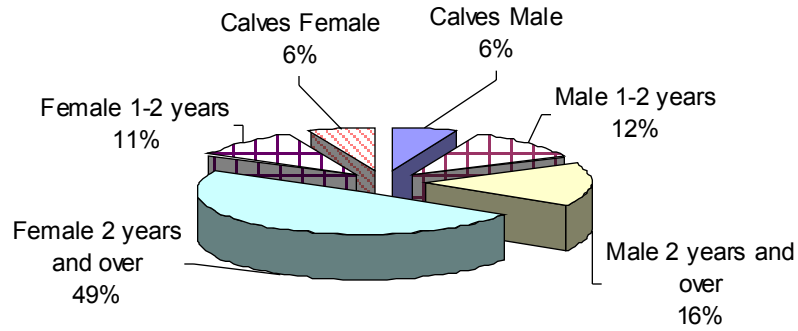
**Figure 16: Cattle showing different herd sizes, 1999**



**Figure 17: Average cattle herd sizes**



**Figure 18: Cattle herd structure**



### Number of Buffalo:

In March 1999, there were an estimated 991,945 buffaloes in the whole country.

Nation-wide about 592,650 holdings reared livestock, 322,139 (54%) of these raised buffaloes.

At the provincial level, Attapeu province had the biggest percentage (82.2%) of holdings rearing buffalo. This is followed by Savannakhet with 72.7%, Khammuane with 70.8%, Champasack with 67.9%, Saravane with 65.8%, Xaysomboon S.R with 65.6%, Huaphanh and Xiengkhuang (with 57.0% and 56.4% respectively). In the rest of the country the total holdings rearing buffalo did not exceed 54%. (See Figure 19.)

Savannakhet province, with 18.5% of the buffalo population, has the most buffalo. In second place comes Champasack with 11.5%. Khammuane is next with 8.3%, followed by Saravane and Xayabury (with 6.8% and 6.7% respectively), Huaphanh with 6.3%, Vientiane with 5.9%, Luangprabang with 5.5%, Xiengkhuang with 4.7%, Oudomxay with 4.3%, and Attapeu with 4.0%. Sekong province with only 1.7% of the total population has the smallest number of buffalo. (See Figure 20.)

The majority of buffalo owners have just a few animals. About 52% of the buffalo owners in all the provinces had only one or two head of buffalo. Only 2.5% of the total holdings with buffaloes had ten or more animals. (See Figure 21.)

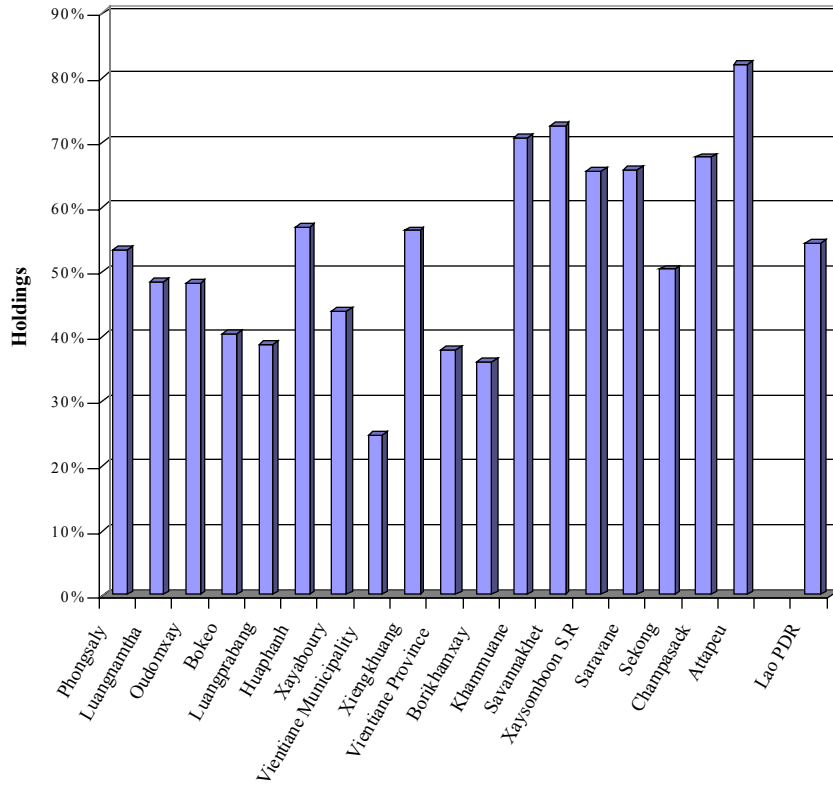
In the Central Region of the country, the average herd size was 3.2. This is above the national average of 3.1.

In Attapeu province the average herd size was 4.8 animals. This was higher than the Northern, Central and Southern Regions and the national levels (2.9, 3.2, 3.0 and 3.1 respectively).

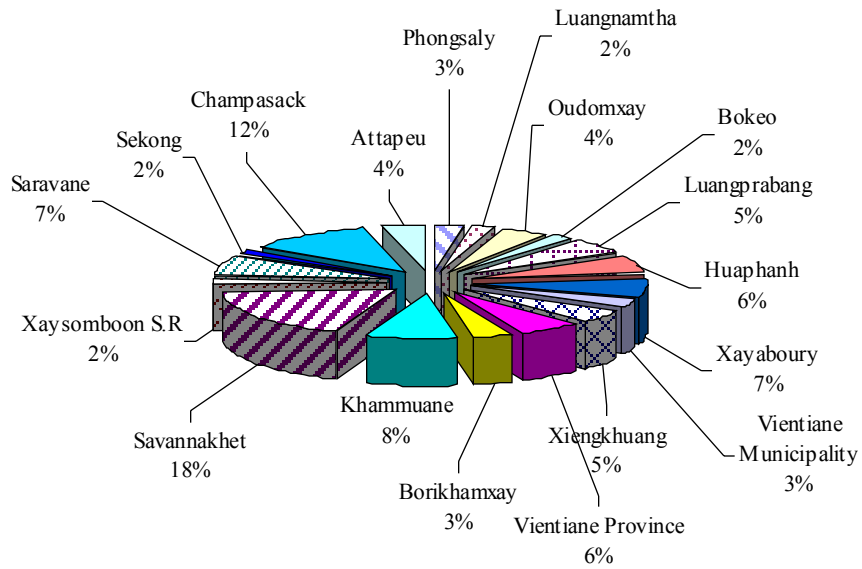
The smallest average buffalo herd size of 2.4 was recorded in Luangnamtha. (See Figure 22.)

In the Lao PDR, 6% of buffalo are under one year of age. Buffalo aged 3 years and over make up 67% of all buffalo. Of these 183,333 were males and 470,440 were females. Thus, females outnumber males by 2.6 to 1. (See Figure 23.)

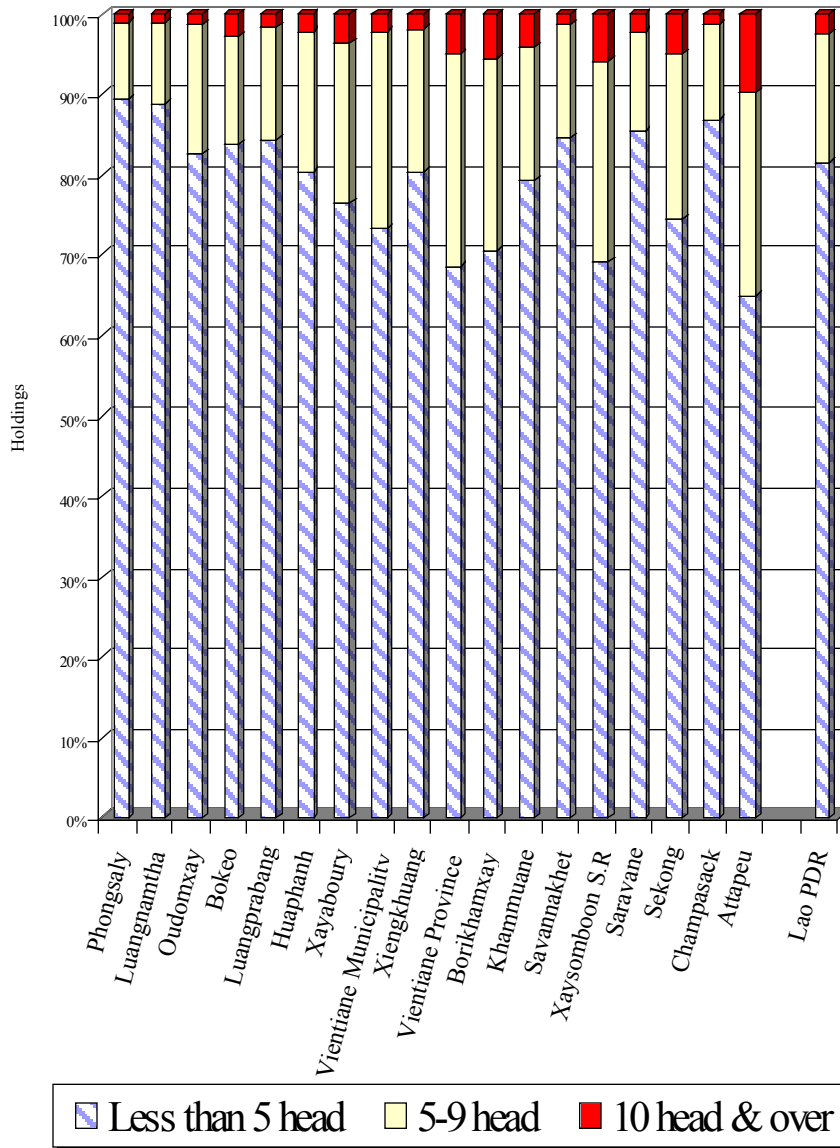
**Figure 19: Holdings with buffaloes, 1999**



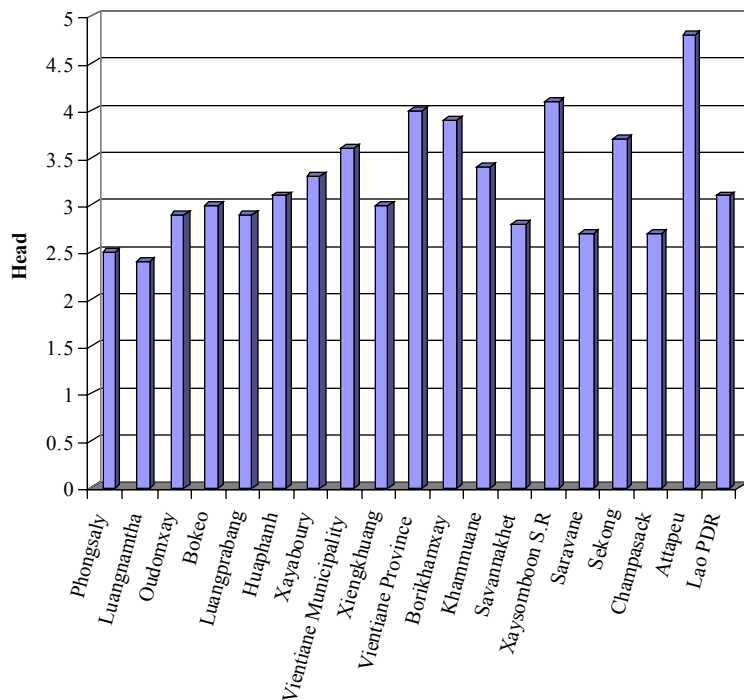
**Figure 20: Percent distribution of buffalo in Lao PDR, 1999**



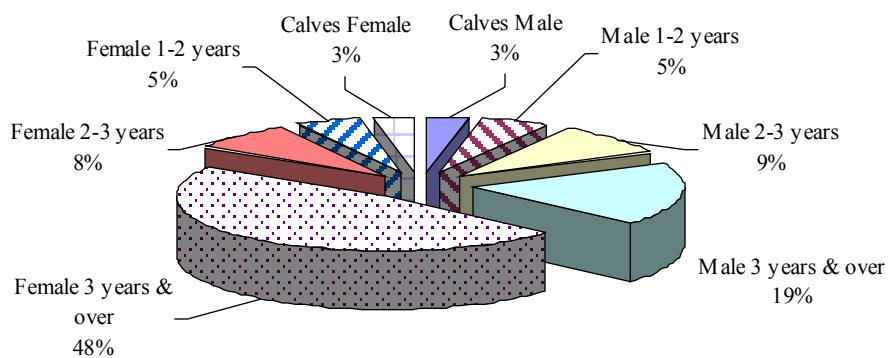
**Figure 21: Buffalo with different herd size, 1999**



**Figure 22: Average buffalo herd size, 1999**



**Figure 23: Buffalo herd structure, 1999**



### Number of Pigs:

In March 1999, there were an estimated 1,036,330 pigs in the whole country.

Altogether there were 592,650 holdings with livestock, 327,500 (55%) of which kept pigs.

As for the provinces, 87.0% of the total holdings with livestock in Huaphanh province raised pigs, compared with 80.0% in Xiengkhuang, 73.6% in Oudomxay, 73.1% in Luangnamtha, 72.5% in Xaysomboon S.R, 71.7% in Phongsaly, 69.6% in Sekong, 66.7% in Bokeo, 63.1% in Xayabury, 60.8% in Luangprabang, 59.6% in Saravane, and 50.3% in Champasack province. Vientiane Municipality with 13.2% of total holdings rearing pigs has the smallest number. (See Figure 14).

Huaphanh province, with 13.3% of the pig population, has the most pigs. Second comes Luangprabang with 11.6%. Savannakhet province is next with 9.1%, followed by Xayabury (8.6%), Oudomxay (8.0%), Xiengkhuang (7.1%), then Vientiane province (6.5%), Champasack (5.3%), Saravane (5.0%), Phongsaly (4.7%), and finally Luangnamtha (3.8%). Vientiane Municipality and Attapeu provinces (both with 1.4%) of the total population have the smallest number of pigs. (See Figure 25.)

The majority of pig owners have just a few animals. About 80% of the total number of holdings with pigs had less than 5 animals. 15% of holdings with pigs had between 5 and 9 animals. (See Figure 26.)

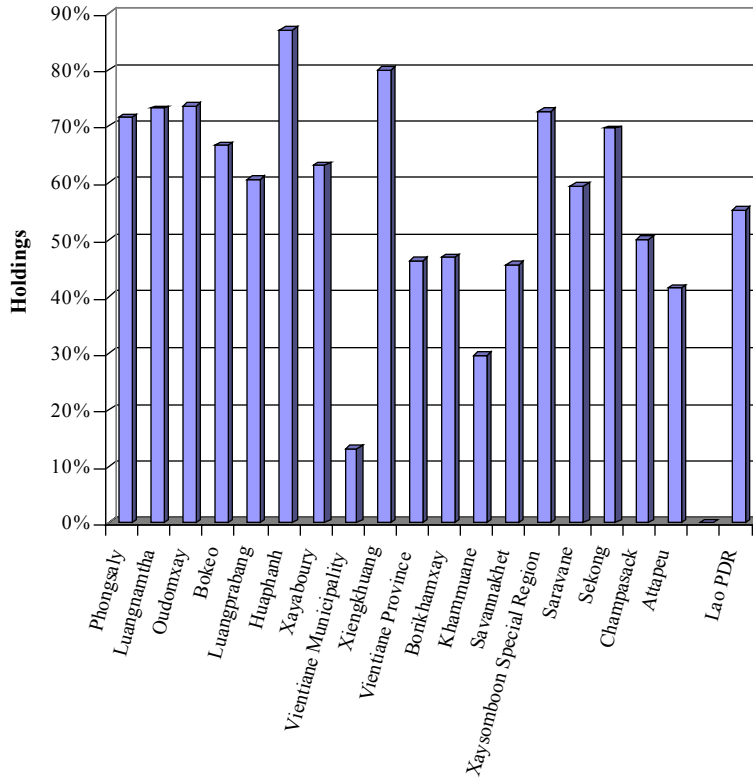
In the Northern Region of the Lao PDR, the average herd size was 3.7. This is above the national average of 3.2.

At the provincial level, in Huaphanh province the average herd size was 4.5 animals. This was higher than the Northern, Central and Southern Regions and the national levels (3.7, 3.0, 2.2 and 3.2 respectively).

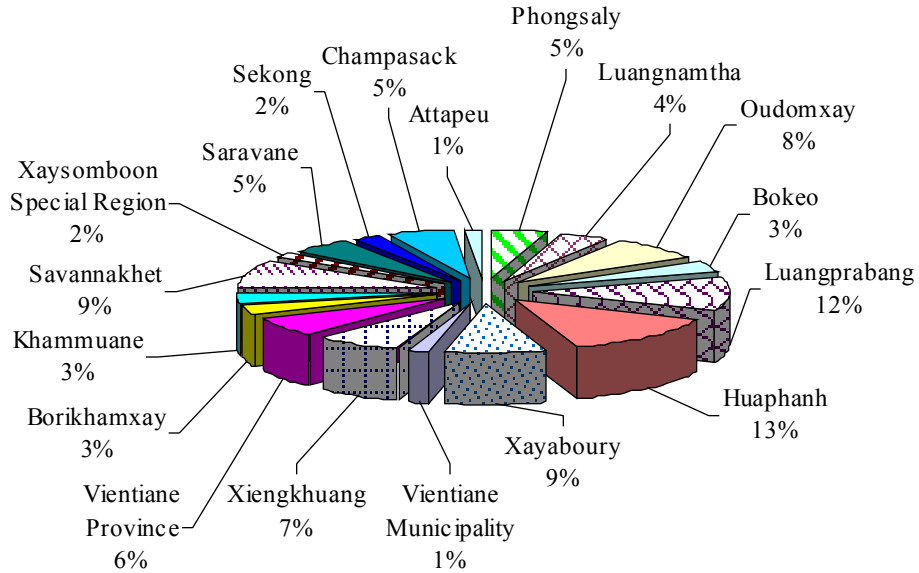
The smallest average pig herd size of 1.8 was recorded in Champasack province. (See Figure 27.)

In the whole country, pigs aged 9 months and over make up 49% of all pigs, of these 172,177 were males and 344,067 were females. Thus, females outnumber males by 2.0 to 1. (See Figure 28.)

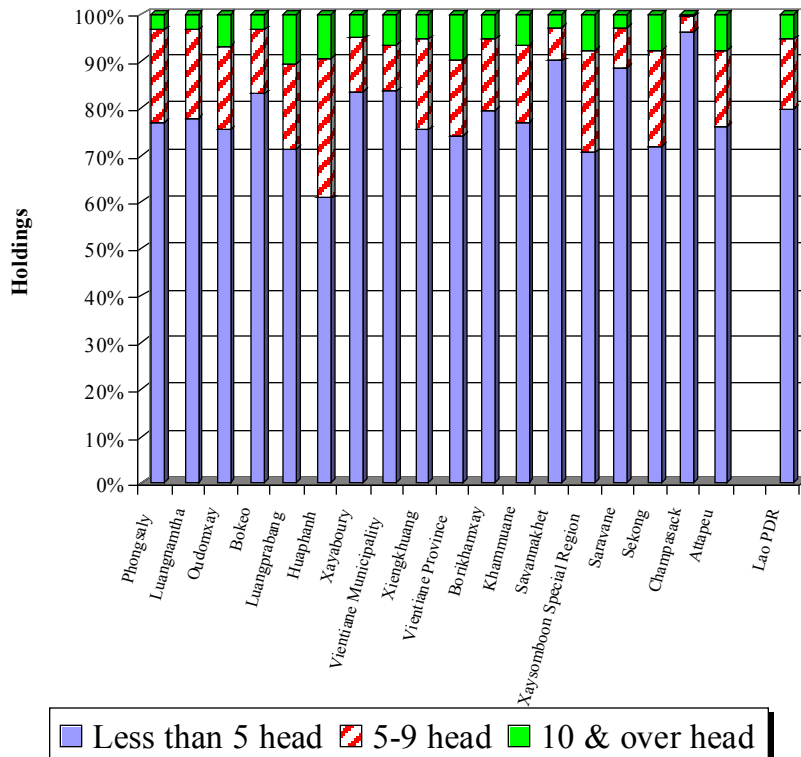
**Figure 24: Holdings with pigs, 1999**



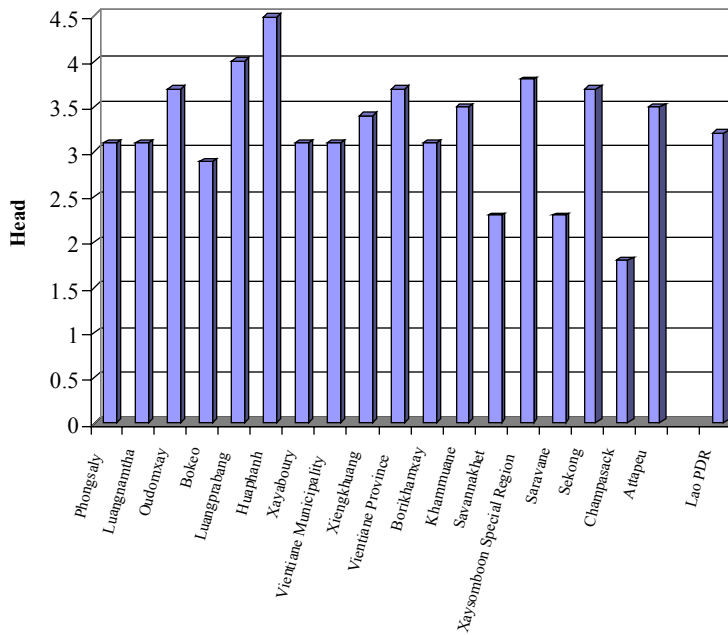
**Figure 25: Percent distribution of Pigs by province, 1999**



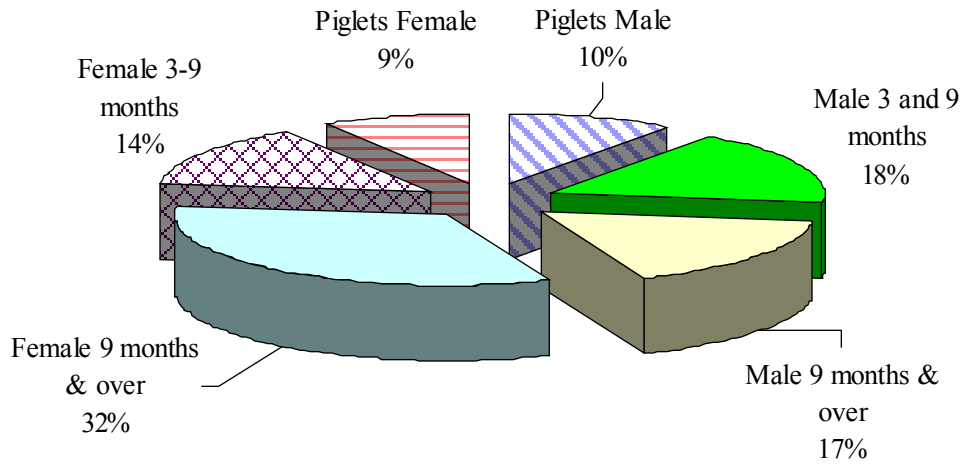
**Figure 26: Pigs with different herd size, 1999**



**Figure 27: Average pig herd size, 1999**



**Figure 28: Pig herd structure, 1999**



### Number of Goats:

In the whole country, there were 94,438 goats being reared in 25,600 holdings.

Of the provinces, Oudomxay had both a larger number of holdings rearing goats and a larger number of goats than other provinces (16.0% and 17.6% respectively). Vientiane Municipality had both a smaller number of holdings and a smaller number of goats than other provinces (0.8% and 1.8% respectively). (See Figure 29.)

Savannakhet province, with 20.7% of the goat population, has the most animals. In second place comes Oudomxay with 17.6%, Luangprabang is next with 15.0%, followed by Huaphanh (11.5%), Xiengkhuang (7.5%), Xayabury (3.8%), and Saravane (3.4%). Phongsaly and Attapeu have the smallest number of goats (both 1%). (See Figure 30.)

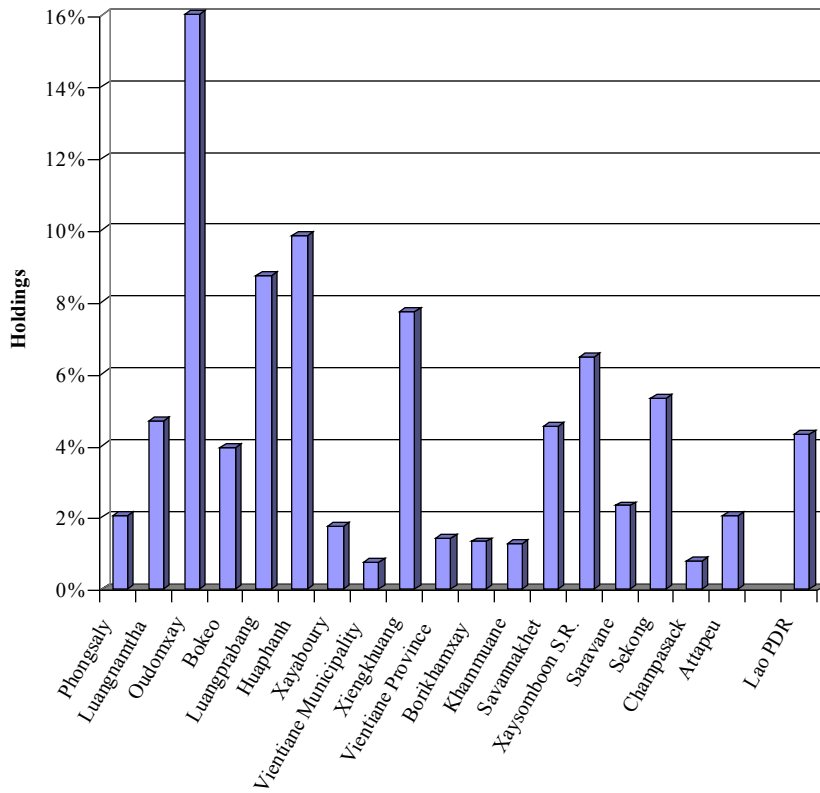
In the country, 6.6% of the holdings with goats had ten or more animals. In Khammuane province, about 30.1% of the holdings with goats had ten or more animals, compared with 28.4% in Vientiane Municipality, 11.7% in Savannakhet, and 9.5% in Saravane. (See Figure 31.)

In Lao PDR, the average number goats per holding were 3.7. In the provinces the average number of goats per holding was highest in Vientiane Municipality (6.2), compared with 5.8 in Khammuane, 5.3 in Borikhamxay, 4.9 in Savannakhet, 4.6 in Xayabury, and 4.5 in Vientiane province.

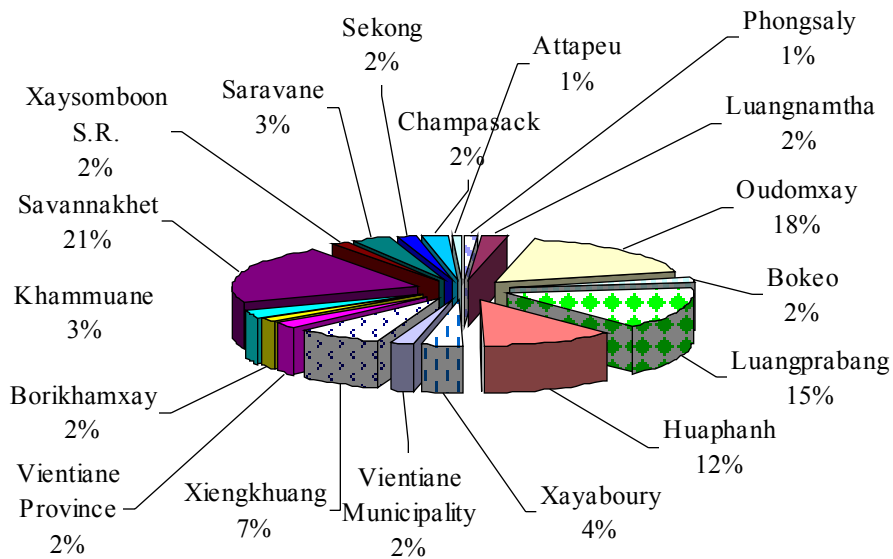
The smallest average goat herd size of 2.2 was recorded in Phongsaly. (See Figure 32.)

For the whole province, goats aged 9 months and over make up 64% of all goats, of these 14,676 were males and 46,843 were females. Thus, females outnumber males by 3.2 to 1. (See Figure 33.)

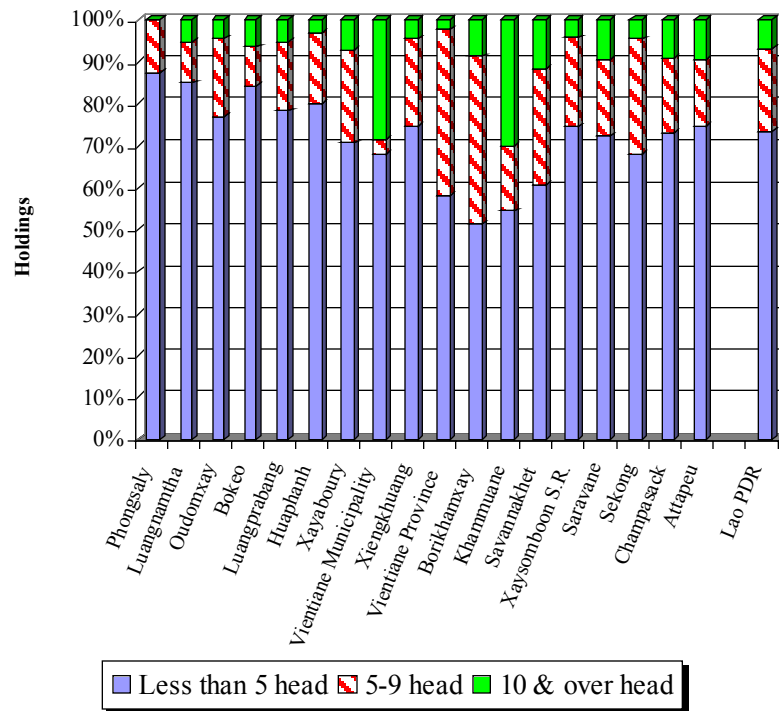
**Figure 29: Holdings with goats, 1999**



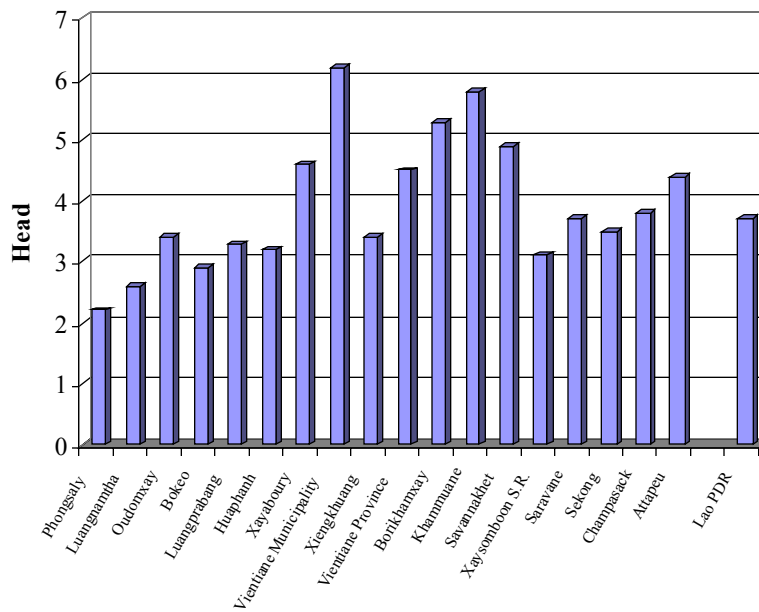
**Figure 30: Distribution of goats, 1999**



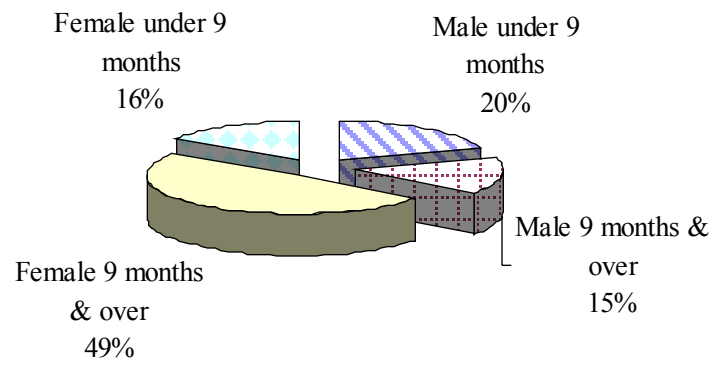
**Figure 31: Goats with different herd size, 1999**



**Figure 32: Average goat herd size, 1999**



**Figure 33: Goat herd structure, 1999**



### Number of Local Chickens:

In the whole country, there were 9,379,000 local chickens being reared in 486,538 holdings.

In the provinces, the largest number of holdings rearing chickens was in Xiengkhuang (89.7%) and the smallest in Khammuane (55.9%). (See Figure 34.)

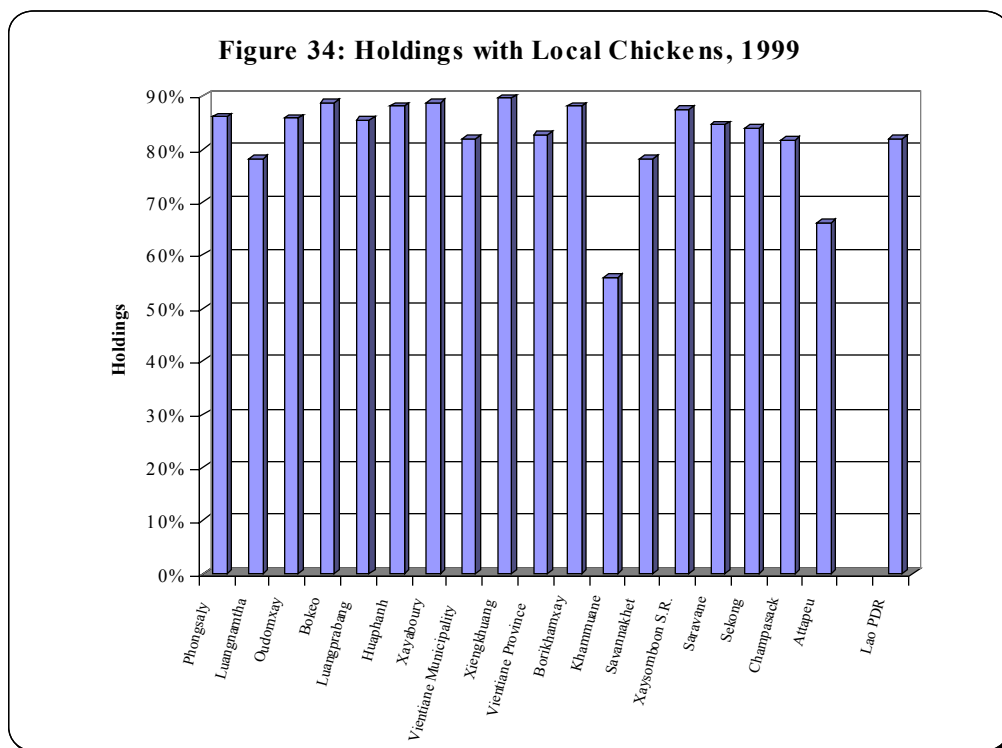
Savannakhet province, with 11.7% of the local chicken population, has the most chickens. Second, is Xayabury district with 11.0%. Champasack is next (10.6%), followed by Luangprabang (8.6%), then Huaphanh and Vientiane provinces (each with 7.6%), Vientiane Municipality (7.4%), Xiengkhuang and Oudomxay (each with 5.4%), Saravane (5.1%), and finally Sekong (1.2%). (See Figure 35.)

In the Lao PDR, about 59% of holdings with local chickens had less than 20 birds and 9% had 50 or more birds. (See Figure 36.)

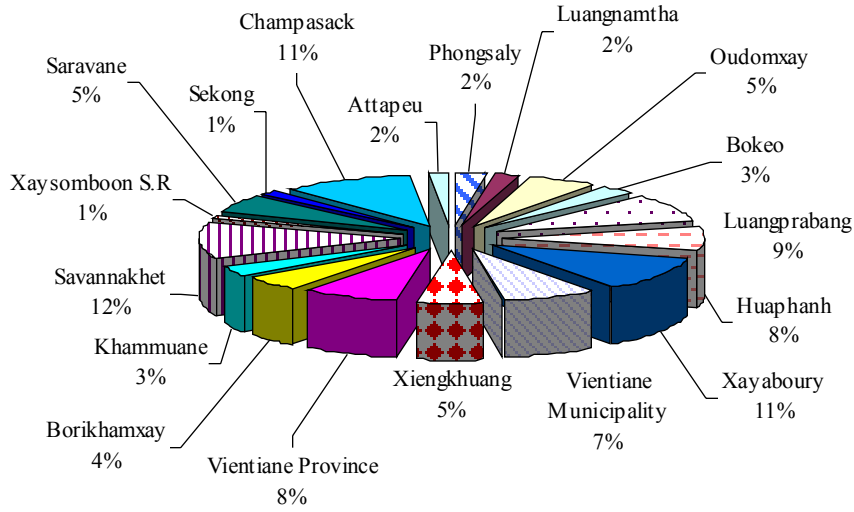
In the Lao PDR as a whole, the average number of local chickens per holding was 19.3, with an average of 20.1 in the Northern Region, 19.2 in the Central Region and 8.0 in the Southern Region.

The provincial average of local chickens was highest in Xayabury (25.9 birds), compared with 23.4 in Vientiane Municipality, 23.2 in Huaphanh, 23.1 in Attapeu, 22.5 in Vientiane, 20.7 in Xiengkhuang, and 20.5 in Xaysomboun S.R. The smallest average number of local chickens of 12.2 was recorded in Phongsaly. (See Figure 37.)

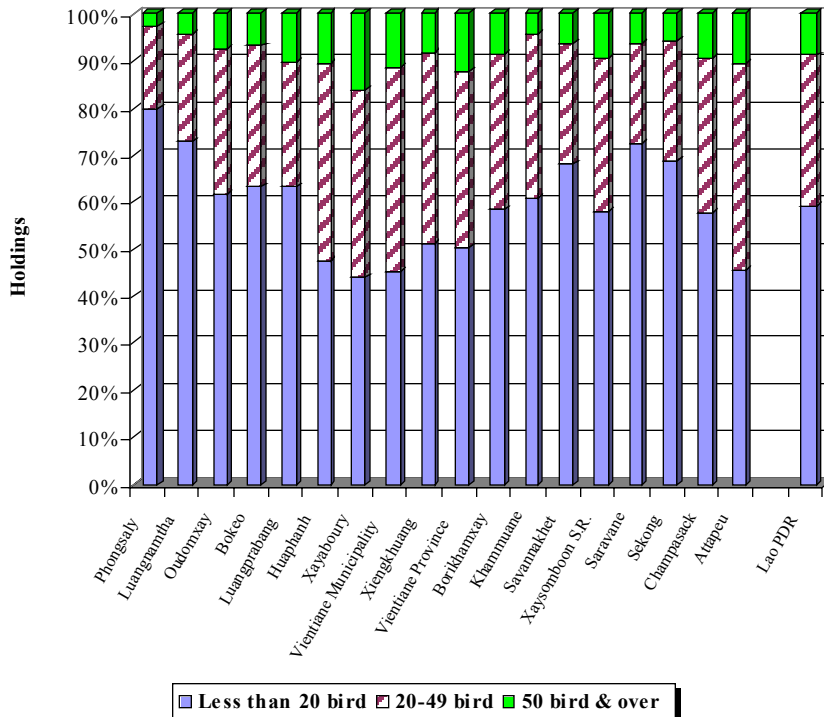
For the whole country, the number of laying hens make up 21% of all local chickens and chicks make up 59% of all local chickens. (See Figure 38.)



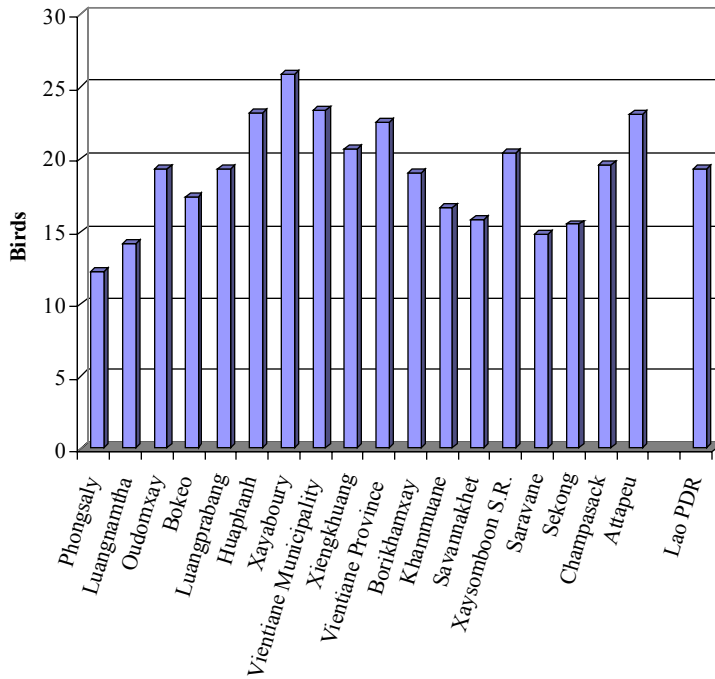
**Figure 35: Distribution of Local Chickens by province, 1999**



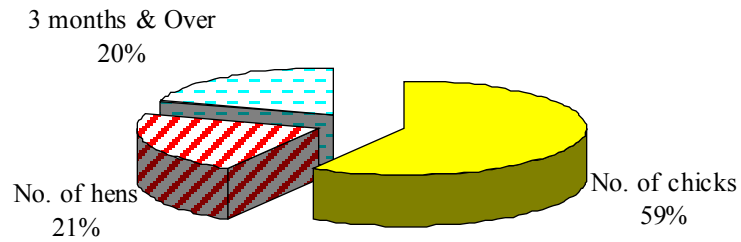
**Figure 36: Local chickens with different flock sizes, 1999**



**Figure 37: Average local chicken flock sizes, 1999**



**Figure 38: Local chicken flock structure, 1999**



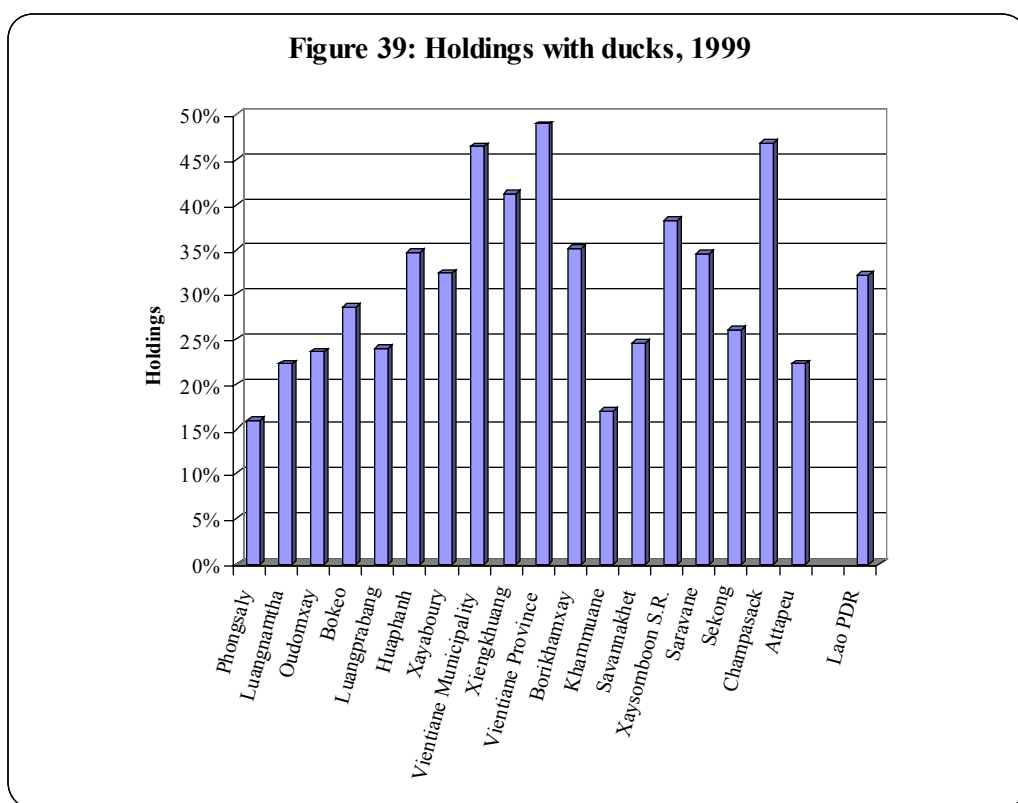
## Number of Ducks

As of March 1999, there were 1,351,300 ducks in the Lao PDR, 321,669 in the Northern Region, 711,985 in the Central Region and 317,640 in the Southern Region. Out of 592,650 holdings with livestock, 190,800 (32%) kept ducks.

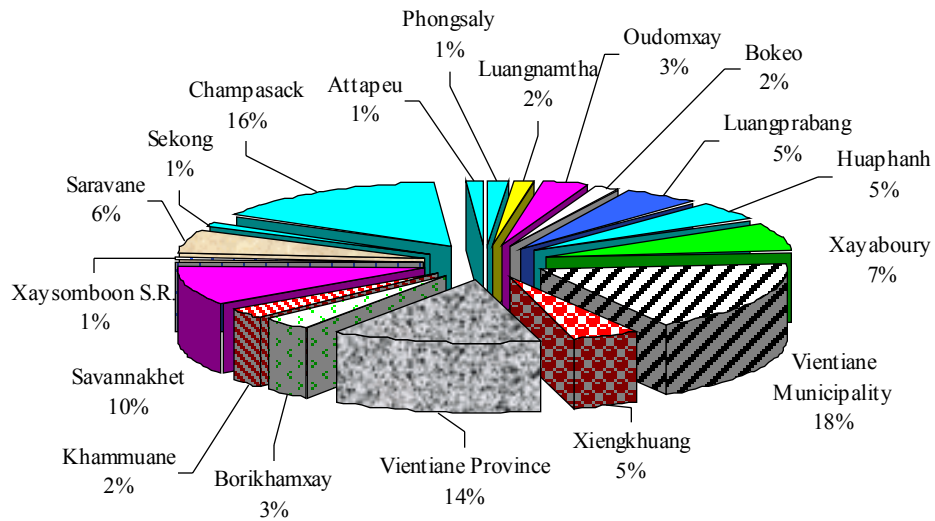
In the provinces, the largest number of holdings rearing ducks was in Vientiane province (48.9%) and the smallest in Phongsaly province (16.0%). (See Figure 39).

Vientiane Municipality, with 17.6% of the duck population, has the most ducks. In second place comes Champasack with 15.8%. Vientiane province is next with 13.5%, followed by Savannakhet (9.9%), then Xayabury (with 6.8%), Saravane with 5.7%, and finally Sekong with 0.9%. (See Figure 40.)

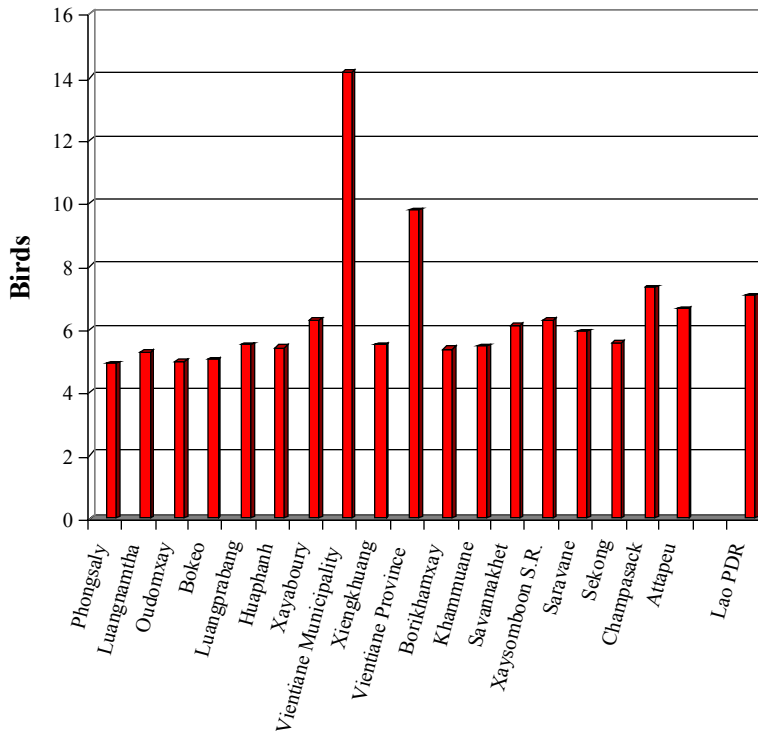
In the Northern and the Southern Regions the average number of ducks per holding was 5.5 and 6.8 respectively. These are less than the national average of 7.1. The highest provincial average number of ducks per holding was in Vientiane Municipality with 14.1 birds, compared with 9.8 in Vientiane province, 7.3 in Champasack, 6.7 in Attapeu, 6.3 in each of Xaysomboon S.R and Xayabury province, 6.1 in Savannakhet, and 5.9 in Saravane. The smallest average duck flock of 4.9 birds was recorded in Phongsaly province. (See Figure 41).



**Figure 40: Distribution of ducks by province, 1999**



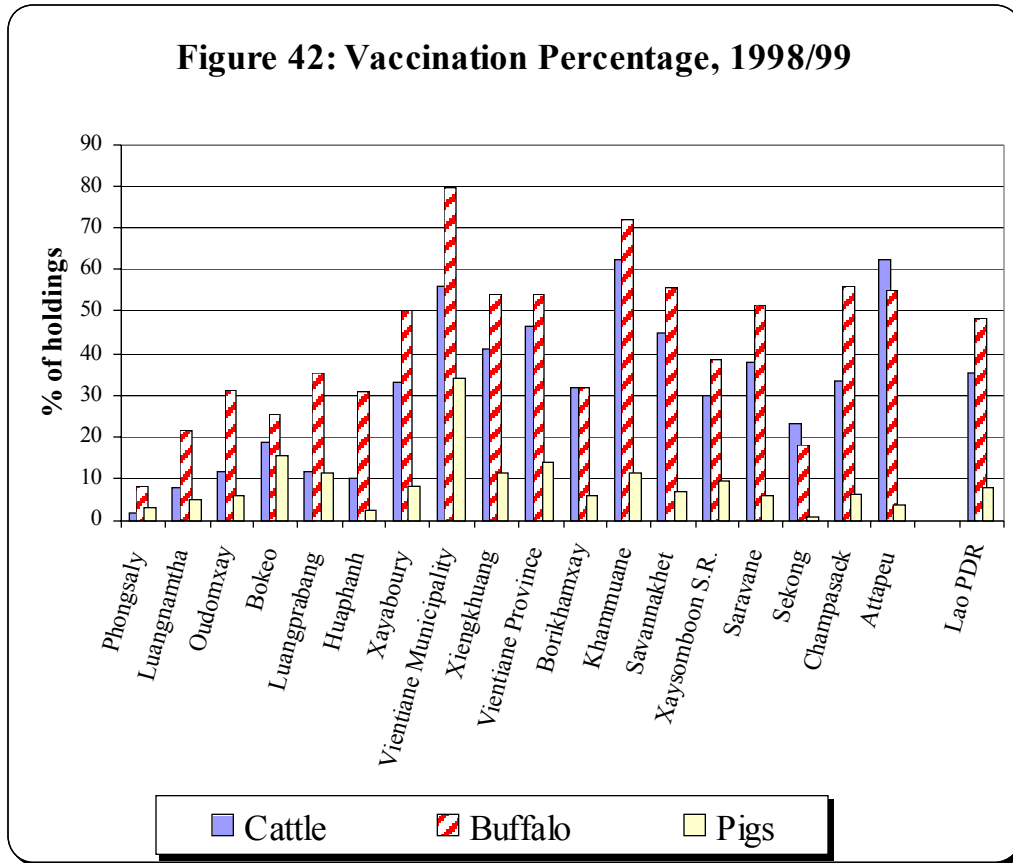
**Figure 41: Average duck flock size, 1999**



**Vaccination of livestock:**

A third of those raising cattle vaccinated their animals in 1998/99, compared with a half of those raising buffaloes. Vaccination is less common in the Northern Region: In Oudomxay, only 12% vaccinated their cattle, compared with 63% in Khammuane.

The vaccination rate for pigs is very low: Only 8% of households raising pigs vaccinated their animals in 1998/99. In the Northern Region, vaccination was most common in Bokeo and Luangprabang, and least common in Phongsaly and Huaphanh.



## The Use of draught animals

The use of draught animals or machinery is rare in upland farming, especially in the north. Only 263,300, 39% of the total number of holdings in the Lao PDR use draught animals. Farmers in the Southern Region rely more on draught animals than their more mechanized counterparts in the Central Provinces. Two-thirds of farmers in Savannakhet and Champasack use draught animals, compared with only 11% in Vientiane Municipality.

