## Village Goat Production in Southern Thailand: 1. Number and Distribution of Goats

Somkiat Saithanoo<sup>1</sup>, Saowanit Kuprasert<sup>1</sup>, Rose – Marie Di Donato Peerasak Suttiyotin<sup>3</sup>, Surapol Choldumrongkul<sup>4</sup> and Winai Pralomkarn<sup>5</sup>

Abstract. Saithanoo, S., Kuprasert, S., Di Donato, R-M., Suttiyotin, P., Choldumrongkul, S., and Pralomkarn, W. 1985. Village goat production in Southern Thailand: 1. Number and distribution of goats. Songklanakarin J. Sci. Technol. 7: 267-270.

The number and distribution of goats in 14 provinces in southern Thailand have been surveyed. The total number of goats in the South in 1983, excluding pre—weaning kids, was 65,685 head. The closer the area to the Thai—Malaysian border, the higher the number of goats in the area. The total goat population in the South was distributed among a five province border zone (76.92%), a west coastal zone (17.89%) and an east coastal zone (5.19%). Among the 14 provinces, Pattani province had the highest number of goats, viz. 14,028 head or 21.36%. The relationship between goat and Thai—Muslim population and changes in goat population during 1978—1983 are discussed.

Key words: goat, Southern Thailand, Distribution of Goats.

<sup>1</sup>M.Sc., Lecturer, <sup>2</sup>Dipome d' Dtudes Approfondies, Visiting Lecturer, <sup>3</sup>D.V.M., Lecturer, <sup>4</sup>D.V.M., Assistant Prof., <sup>5</sup>M.Sc. Assistant Prof., Department of Animal Science, Faculty of Natural Resources, Prince of Songkla University Hat Yai Campus, Thailand.

Received. August. 1985

The livestock industry in Thailand is linked to a complex of agricultural systems. Within the livestock industry, goats are of less importance than other animal species such as swine, cattel and buffaloes. Hovever, in the southern region of Thailand, goats are considered to be an important species, particularly so in the Muslim villages close to the Thai-Malaysian border.

According to the 1978 Agricultural Census Report presented by the National Statistical Office, 73,979 goats, or 87.59% of total goat population in Thailand, were found in the South with the remainder scattered over other parts of the country. Out of the total goat population in the South, 71.21% was reported to be in five provinces close to the border, viz. Songkhla, Satun, Pattani, Yala and Narathiwas. Within these provinces, the proportions of goats to swine, cattle and buffaloes were 1.04, 7.17 and 0.96, respectively. This indicates that goats are one of the most important species in this region and hence deserve considerable attention.

The total number of goats in Thailand in 1978 as reported above is much higher than that of 31,000 goats given by the Department of Livestock Deve-

lopment 17 for the same year. Even though the DLD's figures included only goats after weaning, the discrepancy is rather confsing. However, we have to accept the fact that, in the past, very little attention was paid to goats and therefore population estimates based on official records might have been unreliable.

The overal objective of this study is to obtain base—line data about goat production at a village level in southern Thailand. In this paper, the number and distribution of goats are considered.

## Material and Methods

The survey was carried out from March to May, 1984, in the 14 provinces of southern Thailand. The main sources of information were Provincial Livestock Offices and Provincial Agricultural Extension Offices, where data and progress reports concerning livestock in villages were recorded. However, in some provinces, information obtained from each of the two sources differed. Therefore, in provinces where the goat population was reported to be high, i.e. in Songkhla, Satun, Pattani, Yala and Narathiwas, interviews were made and information collected also from government officials at district, sub-district and village levels so as to confirm and/or elaborate the information from

the above mentioned sources and thereby minimize errors.

The data presented in this paper are the number of goats after weaning (older than approximately 3 months) and their distribution in southern Thailand during the first half of the year 1983.

## Results and Discussion

The number of goats for each province in southern Thailand is presented in Table 1. It was found that, in 1983, there were 65,685 head of goats in the South. The South can be divided into 3 zones (Figure 1), i.e. a five-province-border zone (composed of Songkhla, Satun, Pattani, Yala and Narathiwas), an east coastal zone (composed of Ranong, Phangnga, Phuket, Krabi and Trang) and a west coastal zone (composed of Chumporn, Surat Thani, Nakhon Sri Thammarat and Phatthalung). Table 1 and Figure 1 show that the total number of goats in the five-province-border zone is 50,523 head or 76.92% of the total goat population in the South. The total number of goats in an east coastal zone and a west coastal zone were 3,410 head (5.19%) and 11,152 head (17.89%), respectively.

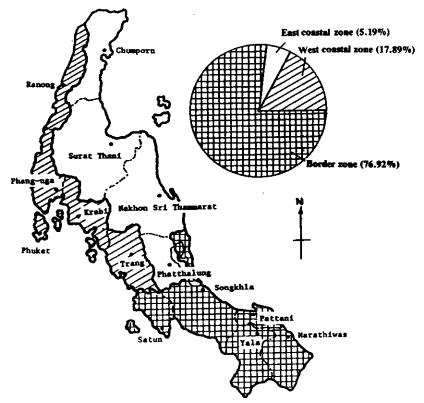


Figure 1 Distribution of goats in southern Thailand in 1983.

ปีที่ 7 ฉบับที่ 3-ก.ค. - ก.ย. 2528

Table 1. Number and distribution of goats in southern Thailand in 1983.

| Zone/Province                 | Number (head)   | Percentage |
|-------------------------------|-----------------|------------|
| East coastal zone             | 3,410           | 5.19       |
| Chumporn                      | 142             | 0.22       |
| Surat Thani                   | <del>66</del> 1 | 1.01       |
| Nakhon Sri Thammarat          | 1,930           | 2.94       |
| Phatthalung                   | 677             | 1.02       |
| West constal zone             | 11,752          | 17.89      |
| Ranong                        | 803             | 1.22       |
| Phang - nga                   | 1,268           | 1.93       |
| Phuket                        | 1,218           | 1.86       |
| Krabi                         | 4,053           | 6.17       |
| Trang                         | 4,410           | 6.17       |
| Five - province - border zone | 50,523          | 76.92      |
| Songkhla                      | 9,453           | 14.39      |
| Satun                         | 4,269           | 26.50      |
| Pattani                       | 14,028          | 21.36      |
| Yala                          | 11,027          | 16.79      |
| Narathiwas                    | 11,746          | 17.88      |
| Total of 14 provinces         | 65,685          | 100.00     |

Since the goat population was highest in the five-province border zone, the number of goats for each district of Songkhla, Satun, Pattani, Yala and Narathiwas provinces are presented in Tables 2, 3, 4, 5 and 6, respectively. The province and the district which have the highest number of goats in the South (and, presumably, in Thailand) are Pattani and Betong (Yala province), respectively.

Discussion with livestock officials indicated that the number of goats reported by DLD is much lower than that reported by NSO (1980) and by this survey because DLD's figures excluded not only a number of pre—weaning kids but also a number of unvaccinated goats.

Even though the number of goats presented in this paper is somewhat lower than that reported by NSO<sup>2</sup>, the zonal distribution of goats is almost the same (Table 7). The differences in the numbers may be due either to the differences in the survey methods or to the fact that the goat population really decreased during 1978 – 1983. In seems that the former hypothesis is an unlikely explanation of such a difference, unless the missing data of goat population in four districts of Pattani province are significantly high to account for the difference. If we accept the latter hypothesis, which seems more likely, it means that goat population in the South has decreased about 11.21% over the past 5 years, or a rate of 2.38%

Table 2 Number and distribution of goats in Songkhia province in 1983.

| District     | Number (besc | l) Percentage |
|--------------|--------------|---------------|
| Muang        | 1,875        | 19.84         |
| Hat Yai      | 1,700        | 17.98         |
| Sadao        | 480          | 5.08          |
| Rattaphum    | 816          | 8.63          |
| Ranot        | 0            | 0.00          |
| Sathing Phra | 47           | 0.50          |
| Chana        | 1,926        | 20.37         |
| Na Thawi     | 475          | 5.02          |
| Thepha       | 1,328        | 14.05         |
| Saba Yoi     | 806          | 8.53          |
| Total        | 9,453        | 100.00        |

Table 3. Number and distribution of goats in Sature province in 1983.

| District      | Number (head | l) Percentag |
|---------------|--------------|--------------|
| Muang         | 2,050        | 48.02        |
| Khuan Ka Long | 243          | 5.69         |
| Langu         | 355          | 8.32         |
| Thung Wa      | * 844        | 19.77        |
| Khuan Don     | 430          | 10.07        |
| Tah Phae      | 347          | 8.13         |
| Total         | 4,269        | 100.00       |

Table 4 Number and distribution of goats in Pattani province in 1983.

| District        | Number (head | l) Percentage |
|-----------------|--------------|---------------|
| Muang           | 2,658        | 18.95         |
| Yaring          | 952          | 6.79          |
| Sai Buri        | 3,753        | 26.75         |
| Мауо            | 3,515        | 25.06         |
| Khok Pho        | 1,265        | 9.02          |
| Nong Chick      | -            | -             |
| Panare          | -            |               |
| Yarang          | 1,332        | 9.49          |
| Mai Kaen        | 553          | 3.94          |
| Карог           | •            | -             |
| Toong Yang Dang |              | -             |
| Total           | 14,028       | 100.00        |

-Incomplete data

per year. The reduction was greatest in the east coastal zone (41.80%) and least in the five – province border zone (4.29%).

The causes of reduction in the goat population

Table 5 Number and distribution of goats in Yala province in 1983.

| District    | Number (head | ) Precentage |
|-------------|--------------|--------------|
| Muang       | 2,383        | 21.61        |
| Banang Sata | 666          | 6.04         |
| Betong      | 4,070        | 36.91        |
| Raman       | 2,261        | 20.50        |
| Yaha        | 777          | 7.05         |
| Thanto      | 870          | 7.89         |
| Totai       | 11,027       | 100.00       |

Table 6 Number and distribution of goats in Narathiwas province in 1983.

| District     | Number (head | ) Percentage |
|--------------|--------------|--------------|
| Muang        | 1,783        | 15.18        |
| Bacho        | 2,033        | 17.31        |
| Rangae       | 1,045        | 8.90         |
| Ruso         | 1,060        | 9.02         |
| Si Sakhon    | 410          | 3.49         |
| Sungai Kolok | 1,304        | 11.10        |
| Sungai Padi  | 1,154        | 9.82         |
| Tak Bai      | 1,336        | 11.37        |
| Waeng        | 830          | 7.07         |
| Yi – ngo     | 761          | 6.48         |
| Sukhirin     | 30           | 0.26         |
| Total        | 11,746       | 100.00       |

are not clear and therefore need more investigation. At present, it is believed that possible explanations are (1) some formers stopped raising goats because goats received less attention from government bodies compared with other species, (2) a lot of breeding does and bucks were slaughtered for meat or sold to Malaysia since demand, and hence price, there are high, and (3) the mortality rate in kids is high.

Information presented in the tables demonstrated that the number of goats per administrative area is very high in those areas close to the Thai—Malaysian border. These areas have large numbers of Thai—Muslim communities, and the goat population in the South is distributed in a similar way to the Thai—Muslim population<sup>3</sup>.

It is expected that, had the survey been conducted at a village level and all goats of very age group included, the total number of goats would be at least 25% higher than those reported by NSO<sup>21</sup> and in this survey.

Table 7 Changes in goat poplation in southern Thailand from 1978 to 1983.

| Zone/Province                 | Number<br>1978 | (head)<br>1983 | Change<br>(%) |
|-------------------------------|----------------|----------------|---------------|
| East Coastal zone             | 5,860          | 3,410          | - 42.80       |
| Chumporn                      | 134            | 142            | 5.97          |
| Surat - Thani                 | 401            | 661            | 64.83         |
| Nakhon Sri Thammarat          | 3,373          | 1,930          | -42.78        |
| Phatthalung                   | 1,952          | 677            | -65.32        |
| West coastal zone             | 15,330         | 11,752         | -23.34        |
| Ranong                        | 558            | 803            | 43.91         |
| Phang - nga                   | 1,608          | 1,268          | -21.14        |
| Phuket                        | 1,307          | 1,218          | - 6.81        |
| Krabi                         | 8,049          | 4,053          | -49.65        |
| Trang                         | 3,808          | 4,410          | 15.81         |
| Five – province – border zone | 52,789         | 50,523         | - 4.29        |
| Songkhla                      | 9,502          | 9,453          | -0.86         |
| Satun                         | 7,428          | 4,269          | - 42.53       |
| Pattani                       | 13,707         | 14,028         | 2.34          |
| Yala .                        | 9,075          | 11,027         | 21.51         |
| Narathiwas                    | 13,979         | 65,685         | - 11.18       |
| Total of 14 provinces         | 73,979         | 65,685         | -11.11        |

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จากการสำรวจจำนวนและการกระจายของประชากรแพะใน 14 จังหวัดภาคใต้พบว่า จำนวนแพะทั้งหมดในภาคใต้ (ไม่รวมลูกแพะก่อนหย่านม) ในปี พ.ศ. 2526 มีเท่ากับ 65,686 ตัว ความหนาแน่นของประชากรแพะในพื้นที่จะเพิ่มนากจิ้นหากพื้นที่น้อยู่ใกล้กับชายแดนไทย มาเถเชียเข้าไป ในจำนวนแพะทั้งหมดของภาคใต้นี้ประมาณร้อยละ 76.92, 17.89 และ 5.19 จะกระจายอยู่ในเขตท้าจังหวัดชายแดนภาคใต้ เขตจังหวัดชายเห็งตะวันตก และเขตจังหวัดชายฝั่งตะวันออก ตามถำดับ จังหวัดที่นี้แพะมากที่สุด ถือ จังหวัดปัตตานี ซึ่งมีแพะจำนวน 14.028 ตัว หรือร้อยละ 21.36

ภาควิชาสัตว์สาตร์ คณะทรัพยากรธรรมชาติ มหาวิทยาลัยสงขลานคริมทร์ วิทยาเขตหาดใหญ่