

# Trends in ruminant livestock development in East Kalimantan

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The East Kalimantan Province in Indonesia has an area of about 211,440 km<sup>2</sup> (1.5 times larger than Java and Madura) and, in 1997, had a population of 2.2 million. It occupies an important position in the Indonesian economy because of its rich natural resources.

Many of the soils are acid and infertile and not well suited for crop production. The topography is hilly and only partly used for upland farms, the rest is *Imperata* grasslands which have not been fully utilized. There are about 15 million ha of this type of land which is suitable for livestock development. Under a framework which aims to promote the well being of smallholders, these lands may be used as the basis of livestock development, especially when planted to forages.

In 1996, the amount of ruminant meat consumed (cattle, buffalo, goat, and sheep) was 29% of the total consumption of meat. Ruminants from other provinces were used (which average 40,110 head per year or 70%) and even the feeder cattle have to be imported from Australia. Local supply was only 30%.

## Ruminant development

### Cattle

Looking at East Kalimantan's land potential and relatively low cattle population (Table 1) the province has good prospects for increasing cattle production.

**Table 1. Population of ruminant livestock (animal units) in East Kalimantan, 1994-1997.**

Species	1994	1995	1996	1997	Annual increase (%)
Cattle	58,556	61,216	62,604	66,460	4.3
Dairy	52	56	56	58	3.5
Buffalo	20,165	20,646	21,201	21,727	2.5
Goat	7,070	7,656	9,420	9,749	11.3
Sheep	402	378	333	338	-5.7
Deer	9	11	13	15	18.7
Total	86,254	89,963	93,626	98,347	4.5

The East Kalimantan Province is a fast developing region. Pelita I has been getting feeder cattle from several regions in Indonesia and from other countries. The government, through its 'Departemen Transmigrasi dan Pemukiman Perambah Hutan', plans to bring 200,000 heads to East Kalimantan during a 20-year period, starting in 1997/1998.

### Buffalo

As with cattle, the government supports buffalo development by importing feeder steer through the ADB II and Banpres Projects. In 1997, 1200 buffaloes from the Banpres Project were distributed to farmers in Pasir and Kutai districts.

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The potential of buffalo raising is high in East Kalimantan. Good indigenous germplasm resources are Kalang and Krayan buffaloes. The Kalang buffalo, a swamp buffalo, is found near the Mahakam river. During the dry season, they roam in the forest. During the wet season, when their habitats are flooded, they return to animal pens with a raised wooden floor (= Kalang) where they are kept during the flooding period and fed cut grasses.

Another kind of buffalo that has thrived well in northeast Kalimantan is the Krayan buffalo. The largest population is concentrated in Krayan District, Kabupaten Bulungan, numbering about 9,700 animal units or 45% of the buffalo population in East Kalimantan.

### Goats

During the 6th National Development Plan the population of goats in East Kalimantan has risen at an average of 11% per year. Goats have been distributed to farmers through several projects.

Goats are popular among smallholder farmers as they are a small ruminant and good source of ready extra income. Goat raising is one of the poverty alleviation methods espoused by the government.

### Sheep

The sheep population in East Kalimantan is very small. Population is only 340 animal units. One reason, why sheep are not popular in East Kalimantan is their link with the infectious MCF disease, which can infect Bali cattle and cause an epidemic.

### Deer

Another ruminant group being developed in East Kalimantan, is Sambar deer (*Cervus unicolor brookei*). Classified as a small ruminant, they live in the forests and savannas in East Kalimantan. They number about 50,000 but are threatened by excessive hunting activities – about 5,000 animals are lost every year.

The East Kalimantan Livestock Services was mandated to oversee deer breeding. For the past 7 years, deer breeding has been conducted on 1000-ha government land at Desa Api-api, Kecamatan Waru, Kabupaten Pasir. Captive breeding of deer has been proven possible and the deer population now stands at 78, with average annual increase of 19% during the last four years.

## Forage development

The opportunities for developing ruminant production are good. At the end of 7<sup>th</sup> Five-Year National Development Plan (Pelita VII), ruminant population is expected to grow to 132,775 animal units at an annual growth rate of 5.2% (Table 2).

**Table 2. Projections of ruminant population (animal units) in East Kalimantan under Pelita VII.**

Species	1999	2000	2001	2002	2003	Annual increase (%)
Cattle	74,900	79,514	84,412	89,612	95,132	6.2
Dairy	62	64	66	68	70	3.3
Buffalo	22,818	23,384	23,963	24,558	25,167	2.5
Goat	10,444	10,809	11,187	11,579	11,984	3.5
Sheep	347	351	356	361	366	1.3
Deer	24	29	36	45	56	23.9
Total	108,594	114,151	120,021	126,223	132,775	5.2

Ruminants must eat 10-15% of their body weight of fresh forages each day. It is projected that about 40% of forage requirement will come from natural grass and agricultural by-products; the remaining 60% must come from planted forage (grass and legume). At the beginning of Pelita VII, the need for planted forages is 951,000 t, rising to 1,163,000 t by the end of the period (Table 3).

**Table 3. Planted forage and land requirements under Pelita VII.**

Item	1999	2000	2001	2002	2003	Annual increase (%)
Planted forage (t)	951,000	1,000,000	1,050,000	1,106,000	1,163,000	5.2
Area required (ha)	4,800	5,000	5,300	5,500	5,800	5.2

Based on these projections some 4,800 ha of planted forage is needed at the start of Pelita VII and some 5,800 ha at the end, expanding by 200 ha each year. The present area of planted forage is only 137 ha, so more than 4,600 ha will still have to be developed by the beginning of Pelita VII.

By cooperating with the Forages for Smallholder's Project, it is expected that forage species will be identified which are well adapted to the conditions in East Kalimantan and which are easily adopted by farmers.