EMPOWERMENT OF SMALL HOLDER FARMERS BUSINESS
“GARUT SHEEP” IN WEST JAVA

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ABSTRACT

West Java in 2010 had a sheep population of about 6.2 million heads, consisting of local sheep and garut sheep as the original sheep. Local sheep that developed in West Java, also known as priangan sheep which is a cross breed between a local sheep, Texel and Merino sheep. The origins of the development of sheeps are believed to originate from Garut regency, that is from Cibuluh, Cikandang, and Cikeris villages in Cikajang District and Wanaradja District. This belief has long grown among the sheep farmer in Garut regency, especially the farmers in Cikajang and Wanara District. Most the sheep farmer in the two districts is believed that the Sheep are a source of genetic resources genuine sheep of Garut Regency. The sheep with characteristic have a combination of ear rumpung (rudimentary ear) or ngadaun hiris (like a leaf of bush tree "hiris" a small triangular) with tail ngabuntut beurit or ngabuntut bagong (thin tail like a tail of rat or tail of wild boar) an original sheep and not a cross breed sheep. (Heriyadi and Surya, 2004; Heriyadi, 2011). Sulaeman (2008) that the garut sheep, as the agile type is kept by the farmers as a pleasure or a hobby. To demonstrate efficacy in sheep farming, farmer do the ram fighting contests, accompanied by traditional music and pencak silat (traditional dance).

Based on the supporting of carrying capacity, social and economic development, West Java has potential as a region of Garut sheep in Indonesia. In order to empower business of garut sheep farmers in West Java, farmers organizations need to be developed intensively as a Breeder Association, intensive research on the genetic quality of Garut sheep, conducting education to consumers and governments need to set up the source of central breeding development.

Key words: empowerment, farmers business and garut sheep
INTRODUCTION

West Java in 2010 had a sheep population of about 6.2 million heads, consisting of local sheep and garut sheep as the original sheep. Local sheep that developed in West Java, also known as priangan sheep which is a cross breed between a local sheep, Texel and Merino sheep. The origins of the development of Sheep are believed to originate from Garut regency, that is from Cibuluh, Cikandang, and Cikeris villages in Cikajang District and Wanaradja District. This belief has long grown among the sheep farmer in Garut regency, especially the farmers in Cikajang and Wanaradja District. Most the sheep farmer in the two districts is believed that the Sheep are a source of genetic resources genuine sheep of Garut Regency. The sheep with characteristic have a combination of "ear rumpung" (rudimentary ear) or "ngadaun hiris" (like a leaf of bush tree "hiris" a small triangular) with tail "ngabuntut beurit" or "ngabuntut bagong" (thin tail like a tail of rat or tail of wild boar) an original sheep and not a cross breed sheep (Heriyadi and Surya, 2004; Heriyadi, 2011).

Garut sheep belongs to world genetic resources and is known as prolific sheep. Sheep plays an important role in farming systems in west Java and provides valuable commodities such as meat and organic fertilizer in the villages. Moreover, it has also has an important function for saving bank for smallholder farmers. Almost 90% of the sheep are bred in small holding. The management regime is also strongly associated with specific socio-cultural conditions and is variable from one village to other villages. Cut and carry system is a typical management, where the forage and other feeds are brought to the animals raised in confined housing. These conditions lead to the difficulties in evaluating the animal across the villages and in designing a breeding scheme (Anang, 2000)

West Java has a good potential in the development of sheep, given the potential for their own sheep and carrying capacity of the community sheep farmers and other physical environments. These way that the government of West Java, has setup in livestock development program to increase its population to 10 million heads. However, on the one hand, the sheep farm functions in rural communities in West Java in general as a sideline business. On the other hand, the pattern of domestic meat consumption from sheep (lamb or mutton) is still very low. Mainly due to the lamb has a distinctive odor that stung, is also considered less safe for consumption because they can trigger the onset of disease (Noviyanti, 2006). So it is assumed in the development will face many obstacles. Based on the conditions and phenomena, this study wanted to reveal about the empowerment of cattle "garut sheep" for rural farmers communities in West Java.
DEVELOPMENT OF "GARUT SHEEP" FARMING

Population of goats and sheep in the year 2010 only 8.86 percent of Indonesia's population, or about 26,747,946 heads consisting of goat around 16,110,709 heads and sheep around 10,637,237 heads. The low of population compared with the population ratio, indicates the insecurity of the population when domestic consumption is rising sharply, so that although the real increase in meat production is high, must remain continually strived to improve the breeding population and productivity in particular, to produce lambs for the benefit of livestock farming as well as to anticipate increase in demand consumption or market.

Although the biggest increase in production of meat (mutton) comes from sheep (15.3%), but the consumption of lamb is still very low at only 0.20 g/capita/year (Strategic livestock Planning, Directorate General of Livestock Services, 2010-2014). Total consumption of animal protein from sheep and goat meat is still very low, if compare it’s the consumption in another countries, such as France 13.89 g/capita/years, UK 16.94 g/capita/years, Australia 52.50 g/capita/years, and New Zealand 81.11 g/capita/years, even in comparison with countries in Asia also their consumption is still far off, only 10% of domestic consumption in India and about 3.9% of consumption in China (Heriyadi, 2009).

Increased consumption of lamb in the domestic needs to be accelerated, given the benefits of lamb is very good for health, intelligence, and the brain performance, especially for a toddler's brain development. Until now, consumer preferences for lamb consumption reached 2.0%, far below the consumption of beef and chicken. That is the priority use of excess meat production would be better directed to increase domestic consumption.

Based on the potential consumption in the future, in West Java which has contributed 57.98% of the national sheep population (Department of Livestock Services West Java, 2010), has great potential to contribute to the production of Sheep meat nationally. Contribution of livestock production of sheep, the sheep are still dominated by local sheep (priangan sheep), while the garut sheep with a better genetic potential than any other local sheep, should be developed in order to increase the productivity of sheep in West Java.

Distribution of garut sheep populations in West Java, shown in the illustration below. The total garut sheep population in West Java around about 8.22% spread across the district in West Java. Specifically developed quite well in areas that have a carrying capacity of the social, economic and physical supported. Particularly in the central mountain regions of West Java. This deployment, closely related to the cultural
community, especially farmers who are members of community farmer groups (Garut sheep Farmers Association) in carrying out its activities at conduct *ram fighting contests*.

Source: Heriyadi, 2010

### PERFORMANCE GARUT SHEEP'S

Rahmat (2005) has studied on Garut Sheep, in three different locations, in which Margawati as government breeding centre, H. Osih and Lesan Putra as farmers. The results are summarized in Table 1.

On Table 1; approximately 50% of Garut sheep gives twin birth, followed by single birth with approximately 45%, and triplet 5%. An increase in litter size leads to a decline in birth weight of lambs. Birth weight and weaning weight were also influenced by sex and birth type. Male is heavier than female for both birth and weaning weight. There is a trend that the famers are more favourable to breed single birth for fighting ram rather than twin and triplet birth. These are indicated by
percentage of single birth in H. Osih and Lesan Putra was higher than the percentage of single birth in Margawati.

Table 1: Body Weight, Body measurements, and Liter Size

<table>
<thead>
<tr>
<th>Traits</th>
<th>Farm</th>
<th>Sex</th>
<th>Birth Type</th>
<th>Single</th>
<th>Twin</th>
<th>Triplet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Weight (kg)</td>
<td>Margawati</td>
<td>Male</td>
<td>2.81</td>
<td>1.90</td>
<td>1.40</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>2.49</td>
<td>1.61</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H. Osih</td>
<td>Male</td>
<td>3.59</td>
<td>2.98</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>3.09</td>
<td>2.68</td>
<td>1.88</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesan Putra</td>
<td>Male</td>
<td>2.76</td>
<td>1.95</td>
<td>1.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>2.47</td>
<td>1.76</td>
<td>1.55</td>
<td></td>
</tr>
<tr>
<td>Weaning Weight (kg)</td>
<td>Margawati</td>
<td>Male</td>
<td>10.81</td>
<td>8.51</td>
<td>6.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>9.97</td>
<td>8.00</td>
<td>6.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H. Osih</td>
<td>Male</td>
<td>12.22</td>
<td>11.64</td>
<td>8.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>10.95</td>
<td>10.61</td>
<td>8.48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesan Putra</td>
<td>Male</td>
<td>11.63</td>
<td>8.51</td>
<td>6.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>9.96</td>
<td>8.00</td>
<td>6.56</td>
<td></td>
</tr>
<tr>
<td>Liter Size (%)</td>
<td>Margawati</td>
<td></td>
<td>39.38</td>
<td>55.16</td>
<td>5.47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H. Osih</td>
<td></td>
<td>40.16</td>
<td>50.82</td>
<td>9.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesan Putra</td>
<td></td>
<td>47.96</td>
<td>46.94</td>
<td>5.10</td>
<td></td>
</tr>
</tbody>
</table>

Mature body measurements of Garut sheep, including wither height, body length, heart girth, and chest width, and mature body weight are presented in Table 2.

Table 2: Body Measurements and Body Weight

<table>
<thead>
<tr>
<th>Traits</th>
<th>Ram</th>
<th>Ewe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Weight, kg</td>
<td>57.74 ± 11.96</td>
<td>36.89 ± 9.35</td>
</tr>
<tr>
<td>Wither height, cm</td>
<td>63.41 ± 5.72</td>
<td>56.37 ± 4.58</td>
</tr>
<tr>
<td>Body length, cm</td>
<td>88.73 ± 7.56</td>
<td>77.41 ± 6.74</td>
</tr>
<tr>
<td>Heart girth, cm</td>
<td>74.34 ± 5.84</td>
<td>65.61 ± 4.85</td>
</tr>
<tr>
<td>Chest width, cm</td>
<td>22.08 ± 8.21</td>
<td>16.04 ± 2.05</td>
</tr>
</tbody>
</table>

Heriyadi, dkk. 2003

The results above are essential for standardization of Garut sheep in a real origin population in West Java. The average body weights were 57.74 kg and 36.89 kg, for ram and ewe, respectively. These measurements could be used also for standardization in other areas for mature body weight.
THE CONTEST OF GARUT SHEEP

According statement of Sulaeman (2008) that the garut sheep as agile type is kept by the farmers as a pleasure or a hobby. Then to show results maintenance performed ram fighting contests, accompanied by traditional music and of Pencak Silat (traditional dance). While the dexterity of art starting from grazing sheep, which is when the sheep are grazed by herdsmen while waiting for free time and rest, they often doing ram fighting. Furthermore, developed into an art ram fighting of sheep. The art of ram fighting is usually held in a the fields, where two rams contested by clashing heads with a certain amount agreed upon before the match, the winner of in this game is determined by a referee. A history of art ram fighting of, beginning around the year 1937 in the village of Cibuluh, with the establishment of a representative field at the initiative of Mama Rubai and Ki Tasik, since it is known to the art of ram fighting accompanied agility of strength of the fighter man, champion or farmers who have the martial arts accompany by the traditional drums.

Until now, the contest and ram fighting garut sheep have been institutionalized in the midst of the Sudanese ethnic in West Java, as evidenced by the implementation of regularly every Sunday. Has even arranged neatly in the implementation, in certain locations has been done like contest of livestock in some countries. Based on research of Sulaeman (2008) was the agile Garut sheep husbandry in particular, has contributed significantly to household income, although there is no standard market price of the benchmark quality standard based on genetics.

EMPOWERING OF GARUT SHEEP BUSINESS

In order to empower of garut sheep farming, some things that need attention are:
First, that the development of livestock anywhere, must be aligned with the culture. For example, in Western countries are known cowboy culture, in India and Bali, the cattle’s are part of the cultural and religious life in all regions of the cattle farm business is growing rapidly, maintained by the culture. In West Java, sheep farming is more culturally sanctioned and be conserved by a society that is ruled by sheep farm in the Sheep and Goat Farmers Association as lovers and fans of garut sheep which every week doing ram fighting and sheep contest in every region. Therefore this institution building, should continue to be fostered to preserve the business as well as their genetic quality. In addition, should the history garut sheep need to be published by "open museum" like in several countries. It is necessary to strengthen the presence of Garut sheep in West Java.

Secondly, the element of researchers from universities and research institutions, especially government of West Java provincial government, need to do in-depth and comprehensive research, particularly in potentials genetic, in order to gain worldwide recognition. Third, the element of demand for lamb, particularly on sheep meat
consumption patterns are relatively low while productivity is much better than in other ruminants. Necessary counseling to consumers about the benefits of lamb, in particular, must be removed the stigma that mutton contain high cholesterol, by pledging to consume of lamb done since an early age.

Fourth, given the carrying capacity of the region of West Java which is suitable for the development of garut sheep, required the Government's role in setting policies regarding zoning for the development of centers of garut sheep breeding farm.

**CONCLUSIONS AND RECOMMENDATIONS**

1. Based on the supporting of carrying capacity, social and economic development, West Java has potential as the region of garut sheep in Indonesia.

2. In order to empower business of Garut sheep farmers in West Java, farmers organizations need to be developed intensively as a Breeder Association, intensive research on the genetic quality of garut sheep, conducting education to consumers and governments need to set up the source of central breeding development.

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