Animal Genetic Resources Utilization And Preservation In Support Of National Food Security

Fini Murfiani
Director of Processing and Marketing of Livestock Production
DIRECTORATE GENERAL OF LIVESTOCK AND ANIMAL HEALTH SERVICES MINISTRY OF AGRICULTURE

LAWS

- Constitution No 18/2012 concerning Food.
THE DETERMINATION OF NATIVE/LOCAL BREED

- Increasing the awareness from local government and livestock services for eminent AGR management in their region
- Ensuring the preserve and benefit sustainability along with law protection of the native/local breed
- The provision of the native/local breed registered by Minister of Agriculture to Food and Agriculture (FAO) → DAD-IS

INDONESIAN LIVESTOCK NATIVE/LOCAL BREED DETERMINED BY MINISTRY OF AGRICULTURE ACT

- CATTLE
  - Sapi Bali
  - Sapi Madura
  - Sapi Aceh
  - Sapi Pedal
  - Sapi Sumbawa
  - Sapi Peranakan Ongole
  - Sapi Jilis
  - Sapi Sumba Ongole
  - Sapi Dayung
  - Sapi Pasundan
  - Sapi Kuantan

- BUFFALO
  - Kambing Kali Geeng
  - Kambing Lakor
  - Kambing Etawah
  - Kambing Gembong
  - Kambing Kusang
  - Kambing Marico
  - Kambing Senduro

- GOAT
  - Domba Kisor
  - Domba Giusd
  - Domba Wromoso
  - Domba Batik
  - Domba Sapudi
  - Domba Palu
  - Domba Compost Agenon (Pelepasan)

- SHEEP
  - Ayam Pelung
  - Ayam Kukur Balenggayak
  - Ayam Ginep
  - Ayam Marawang
  - Ayam Kenju
  - Ayam Nuniakan
  - Ayam Sentul
  - Ayam Kukur (Pelepasan)
  - Ayam Gaok

- CHICKEN
  - Ayam Alabio
  - Ayam Tagel
  - Ayam Pitalah
  - Ayam Kali
  - Ayam Bayang
  - Ayam Talang Benih
  - Ayam Mojosari
  - Ayam Pegan
  - Ayam Rambon
  - Ayam Magelang
  - Ayam Cihakap
  - Ayam Turi
  - Ayam Mejosari-Master (Pelepasan)
  - Ayam Alabio-Master (Pelepasan)

- CANINE
  - Anjing Kintamani

- DEER
  - Rusa Sambar

- HORSE
  - Kuda Sumbawa
  - Kuda Sandel
  - Kuda Gayo
  - Kuda Pacu Indonesia (Pelepasan)
Rabon Duck

Cihateup Duck

KUB chicken

Sandel Horse

Indonesia Racehorse

RUSA SAMBAR

ANJING KINTAMANI

The Indonesian registered strain/line in FAO via DAD-IS
DAD-IS is the acronym of the worldwide Domestic Animal Diversity Information System of the Food and Agriculture Organization of the United Nations
CRITERIA

1. The animal disease surveillance must be done for the area with the certain livestock breed.
2. The criteria cover the livestock species and breed, agro climate, population density, social-economy, culture, knowledge and technology.
3. The region could be a partial or a whole of a sub-district, districts, province or island, depend on the local policy in order to preserve the breed livestock.

Livestock Breed

- The population of the breed must be a dominant (>80%) compare with the others.
- The dominant breed must concern the population structure.

Agro Climate

- Including feed resources and land suitability (rainfall, temperature, humidity), topography and land-capacities.

Population Density

- Presented by the proportion people (all ages) with an area in the proposed breed source region (person/km2)
- The population density completed with data of sex, age, type of work, livestock household

ZONING OF BREEDING SOURCE

MoA regulation No 64/2012 concerning Amendment of MoA regulation Nomor 48/2011.

Breeding Source Region is an agroecosystem area with no administrative border and has the potential of breed development with particular native/local breed.
Social-Economy

- Showed by the availability of economic institutional i.e. bank, cooperative system, livestock market and farmer livestock institutional.

Culture

- Could be described by the farmers experience, likely livestock raising and the pattern of farming system (intensive, semi-intensive and extensive).

Knowledge and Technology

- Applicate knowledge and technology in the proposed region obtained by heredity, new technology introduction, feed genetic modification, etc.

**LOCATION OF STRENGTHENING BREEDING ON SELECTED ISLAND/DISTRICT 2015**

**GOVERNMENT EFFORTS TO DEVELOP LOCAL LIVESTOCK**

1. **UPSTREAM**
   - Improving the quality and quantity of local livestock breeds.
2. **ON FARM**
   - Increased livestock production with the use of natural resources.
3. **DOWNSTREAM**
   - Assurace of feed of animal origin (ADP) and fulfillent of the requirements of non-food products.

**LIVESTOCK EXISTING CONDITION**

<table>
<thead>
<tr>
<th>NO</th>
<th>COMMODITIES</th>
<th>SITUATION</th>
<th>OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Local Cattle</td>
<td>1. Need the importation of meat and live cattle. 2. Constraint problem for high-quality livestock production.</td>
<td>Indonesia has the origin of local cattle: Bal, Modura, PG, Pesari, Acet.</td>
</tr>
<tr>
<td>2</td>
<td>Buffalo</td>
<td>The population is likely to decline. Indonesia has the origin of buffalo germplasm.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dairu Cow</td>
<td>1. Local dairy product is still low. 2. The rate of dairy product production.</td>
<td>Indonesia has vast fertile land that can be used for increasing dairy farm.</td>
</tr>
<tr>
<td>4</td>
<td>Goat/Sheep</td>
<td>The low of management productivity.</td>
<td>Very highly export opportunities.</td>
</tr>
<tr>
<td>5</td>
<td>Pig</td>
<td>Mostly smallholder.</td>
<td>Very highly export opportunities.</td>
</tr>
<tr>
<td>6</td>
<td>Broiler Chicken</td>
<td>Over-supply production</td>
<td>Open widely to export.</td>
</tr>
<tr>
<td>7</td>
<td>Native Chicken</td>
<td>The threat of a cross between local and broiler chickens.</td>
<td>Open widely to the market.</td>
</tr>
<tr>
<td>8</td>
<td>Duck</td>
<td>Mostly smallholder.</td>
<td>Consumption and rapidly growing product diversification.</td>
</tr>
</tbody>
</table>

**The way to change**
Development of People Livestock Center (Sentra Peternakan Rakyat/SPR)

FACILITATION ON SPR PRODUCTION TO SUPPORT THE AVAILABILITY OF FOOD

Supported by:
- Increasing human resources competition (butcher, halal slaughter man, AMPM inspector, AW officer)
- SH management restructuration

Carcass, meat, edible units:
- Chilled/frozen meat for local market or meet consumption area

By products:
- Leather and leather raw material industry
- Blood, fat, feed material
- Agrochemical waste: bioenergy, fertilizer

Thank You