

# Improved Livestock Management Systems

Country : Indonesia

Yeni Widiawati

Climate Dialogues : Koronivia Workshop, UNFCCC - 24 November 2020



# Indonesia' experiences with improving livestock management systems, including agropastoral production systems and others.

- Current livestock management systems vary depending on the socio-economic level and the scale of livestock enterprise:
  - ✓ Smallholder traditional grazing on public land;
  - ✓ Smallholder cut and carry of grasses from public land;
  - ✓ Cut and carry fodder from improved grassland;
  - ✓ Improved systems using quality grasses such as elephant grass, legumes, and concentrates





# Indonesia' experiences with improving livestock management systems, including agropastoral production systems and others.

The best practices include:

- Improved grazing of better quality grasses as well as tree legumes
- Using manure for composts or in some cases, the fresh manure is used as fertilizer
- Artificial insemination by using selected bull
- Bio-digestion of manure for producing CH<sub>4</sub> as a source of energy



## The improved management systems:

- Improved feed quality will increase the body weight, milk production, and population.
- Co-benefit : CH<sub>4</sub> emission reduction from enteric fermentation. The effect on emission reduction is small (about 3.5 to 4.5%) relative to the conventional feed management
- Using manure for agricultural lands will improve soil structure, organic matter content and soil fertility and, in turns, improve the resilience to climate extremes as well as increasing crop production
- Indirect effects : include land saving for grazing or fodder production due to an increase in livestock population under improved feed management





# Indonesia' set goals and measure progress in improving livestock management systems

- improved feed quality did not show much impact on emission reduction. However, the adaptation effects are significant.
- Improvement will include supplying good quality grass and legumes to smallholders farmers;
- Training the farmers on how to produce concentrate



# Indonesia' set goals and measure progress in improving livestock management systems

- To speed the adoption through the dissemination and pilots activity
- Emission reduction is also possible by developing mini, anaerobic manure digestion plants.
- The mitigation aspect include the flaring of  $\text{CH}_4$  to form  $\text{CO}_2$  as well as substitution of conventional (fossil) fuels for cooking and electricity





# Indonesia' challenges face in improving livestock management systems

- Capacity : farmers' capacity needs to be increased to adapt and adopt technology
- Capital : farmers' low income cannot deal with expensive technology such as digestion tank and electricity lines



# The Koronivia Joint Work on Agriculture and UNFCCC constituted bodies can help to address these challenges by:

- Technology transfer
- Technology dissemination
- Pilot projects of improved systems





# Thank You

