

# Women's roles in small ruminant production and the status of *peste des petits ruminants* (PPR) in Indonesia

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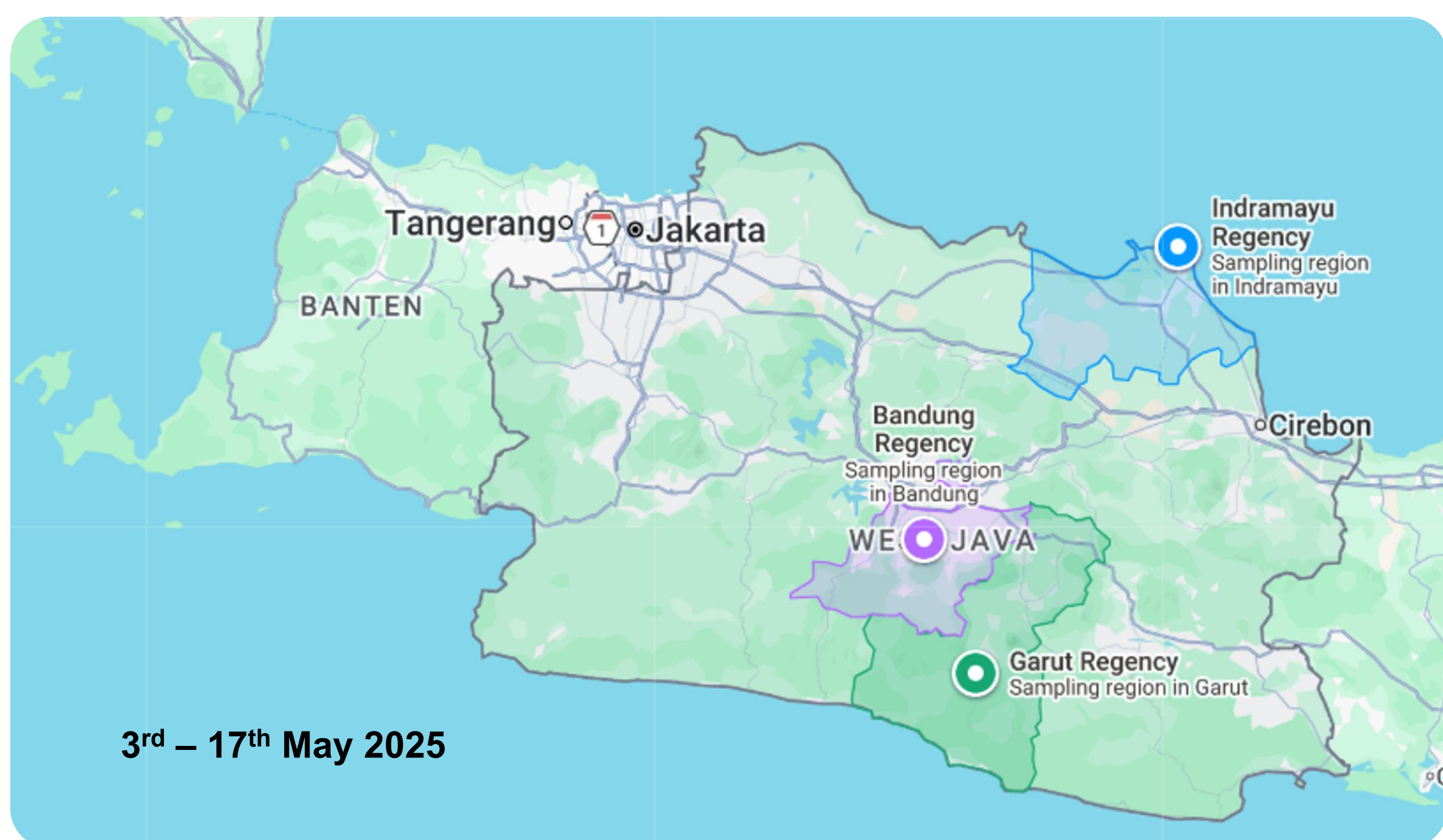
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## INTRODUCTION

- In low- and middle-income countries, **small ruminants support rural food security and are often women-owned for empowerment and child welfare, though gender-differentiated control over ownership, markets, labour, income, and health decisions varies by national context.**
- However, **infectious diseases like *peste des petits ruminants* (PPR) constrain production and cause economic losses**, and despite available live-attenuated vaccines, procurement and sero-monitoring coverage remain critically low.

## MATERIALS & METHODS



### Focus Group Discussion

Semi-structured, open-ended + probes, 29 women + 48 men



### Field Sampling

Metadata recorded, unique IDs, vet-supported, 50 samples/region



### Sample Processing

Field-processed; 4°C cold chain



### Wates Veterinary Center Laboratory Wates Indonesia

c-ELISA for antibodies and qRT-PCR for viral RNA

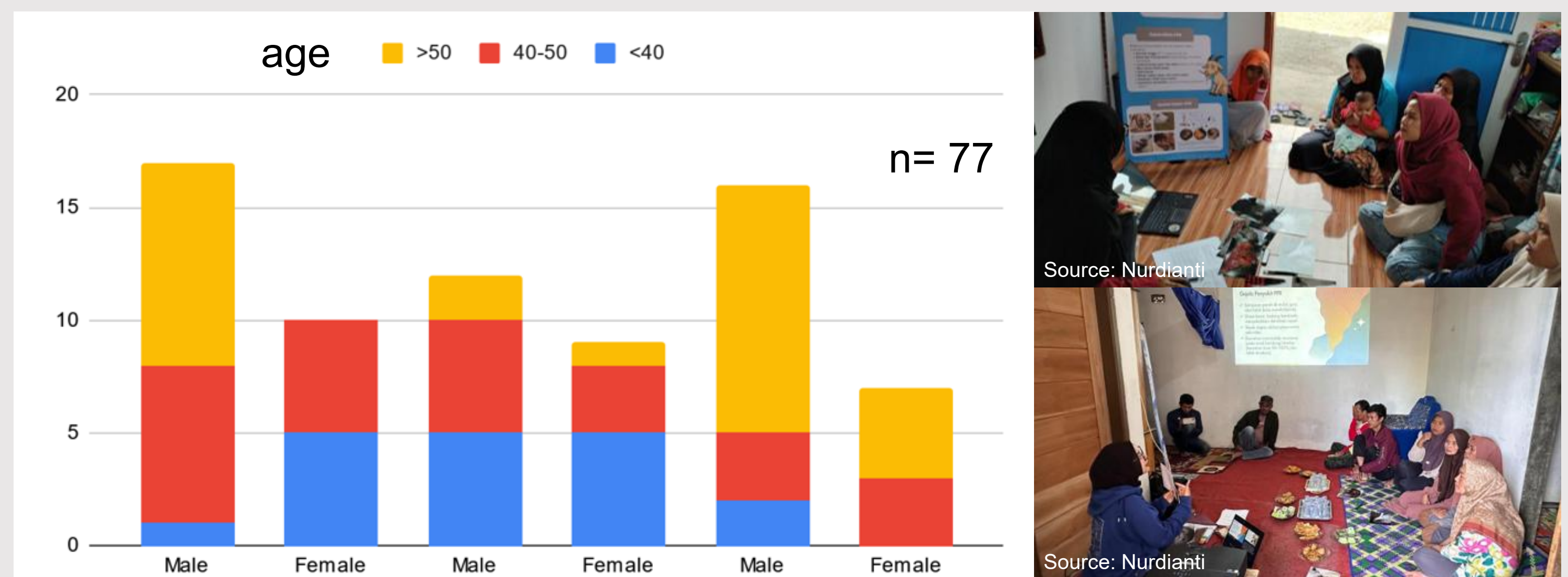


### Integrated Evidence

## OBJECTIVE

- To evaluate the roles of women particularly in small ruminant production system and assess the current status of PPR in Indonesia.

## RESULTS



**Figure 1.** Distribution of participants by gender, age (year), and region and FGD in Bandung, Garut, and Indramayu.

- Women's roles in smallholder livestock management are **shaped by local cultural beliefs and household gender dynamics.**
- Farm-related tasks: **animal feeding, cutting grass, managing livestock**
- Partly livestock-related decision-making**, especially in Bandung
- In Garut**, women not directly involved in daily farm work but **influence household decisions including selling of livestock**

**Table 1.** Prevalence of PPR antibodies in sheep and goats in West Java, Indonesia.

| Regency   | District    | n  | Seroprevalence (%) based on |           |             |              |              |            |         |
|-----------|-------------|----|-----------------------------|-----------|-------------|--------------|--------------|------------|---------|
|           |             |    | Type of animal              |           | Age         |              |              |            |         |
|           |             |    | Goat                        | Sheep     | 6-12 months | 12-24 months | 24-36 months | >36 months | Unknown |
| Bandung   | Ciwidey     | 51 | 0 (0/2)                     | 0 (0/29)  | 0 (0/8)     | 0 (0/20)     | 0 (0/2)      | 0 (0/1)    |         |
|           | Pasir Jambu |    | 0 (0/20)                    | 0 (0/9)   | 0 (0/7)     | 0 (0/1)      | 0 (0/3)      |            |         |
| Garut     | Limbangan   | 50 | 0 (0/25)                    |           |             | 0 (0/25)     |              |            |         |
|           | Selaawi     |    | 0 (0/25)                    | 25% (1/4) | 0 (0/11)    | 0 (0/2)      | 0 (0/2)      | 0 (0/6)    |         |
| Indramayu | Bangodua    | 50 | 0 (0/18)                    | 0 (0/5)   | 0 (0/9)     | 0 (0/1)      |              | 0 (0/3)    |         |
|           | Tukdana     |    | 0 (0/32)                    | 0 (0/18)  | 0 (0/11)    | 0 (0/1)      |              | 0 (0/2)    |         |



**Figure 2.** Clinically healthy sheep (left) and suspected sheep with PPR clinical sign (right).

**Table 2.** Distribution of S/N value of seropositive samples and qRT-PCR results of PPR in sheep and goat in West Java, Indonesia.

| Regency   | District    | n  | S/N  |       | n  | qRT-PCR |       |      |
|-----------|-------------|----|------|-------|----|---------|-------|------|
|           |             |    | <50% | ≥ 50% |    | <40     | 40-45 | ≥ 45 |
| Bandung   | Ciwidey     | 51 | -    | 51    | 15 |         |       |      |
|           | Pasir Jambu |    | -    |       |    |         |       |      |
| Garut     | Limbangan   | 50 | -    | 49    |    |         |       | 15   |
|           | Selaawi     |    | 1    |       |    |         |       |      |
| Indramayu | Bangodua    | 50 | -    | 50    |    |         |       |      |
|           | Tukdana     |    | -    |       |    |         |       |      |

## CONCLUSIONS

- These findings highlight the **value of incorporating gender perspectives to acknowledge and leverage women's contributions.**
- Antibody of PPR was detected, even at low level, indicates that previous exposure of virus which **highlights a potential vulnerability to PPR outbreaks within the smallholder farming system in Indonesia.**
- The qRT-PCR shows negative results which concluded that **there were no PPRV antigen detected in this study.**
- The current finding shows the **importance of preparedness through robust veterinary surveillance.**

## Acknowledgement

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