

# Leucaena based cattle fattening improves income of cattle farmers in Sumbawa, Indonesia

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## Introduction

- The use of Leucaena (*Leucaena leucocephala*) as cattle feed is novel to the farmers in Nusa Tenggara (NTB) province. The traditional practices in Sumbawa island are to raise cattle in the free grazing system or housed in pens by cut and carry feeding based on mostly grasses
- The change to feeding Leucaena started in 2011 when an ACIAR funded project started to promote Leucaena for cattle fattening. A DFAT funded ARISA (Applied Research and Innovation System in Agriculture) project then followed up since 2016.
- The interventions include facilitating partnership between private sector and farmers in the use of proven technology to improve farmer incomes and to sustain cattle business by private sector. One of the intervention was to scale out the Leucaena based cattle fattening system.
- At midterm project implementation, an Impact Assessment was conducted.
- This paper discusses results of the impact assessment, in particular the impact of the intervention on household incomes



## Other impacts

- Increased availability of Leucaena within reach increase participation of women in cattle fattening (Thei et al., 2018)
- Increase confident of the banks to provide loan for cattle fattening
- Farmers has higher bargaining power against the traders

## Income changes

- The average number of cattle fattened was 11 heads per household/year
- The net attributable income increase per farm household is 57% with the total value reached on average 15.1 M IDR per household
- The monthly income was around IDR 5.5 M with average cattle ownership 11 heads.
- This income level is much higher than the minimum wages of IDR 1.825 per month for NTB Province (NTB Government, 2017).



Plate 1. Cattle fattening using grasses



Plate 2 and 3. Leucaena transport (above) and cattle transport (below)



Plate 4. Cattle fattening using Leucaena

## Methods

- The impact assessment was conducted during February 2017 in Sumbawa and West Sumbawa districts.
- The respondents were adopters (n=35) and the non adopters (n = 42).
- The survey was carried out by trained enumerators using pre-trialed questionnaires. The criteria of enumerators were: proficient in using Microsoft Excel for basic data entry, basic tabulation, experienced in conducting survey and has sufficient knowledge in cattle fattening.

## Number of access and impact of the intervention

- By October 2018, the number of access was 1,234 farmers and 90.2% of them (1,113 farmers) are adopters.
- The innovation decreased the feeding cost (57% respondents)
- The innovation increased the productivity (54% respondents),
- The innovation increase farm household income by at least 30% (71% respondents)
- The innovation increase cattle body conformations (57% respondents).

## Conclusions

- Adoption of the Leucaena based cattle fattening system remarkably increased the income of farmers
- The increase in income was due to the higher cattle growth rate and more frequent selling of adopters compared to the non adopters
- Fattening cattle 11 heads per household per year generates much higher income than the regional minimum wages

## Reference

- NTB Government (2017) Governor Decree no 561/815/2017
- Thei R S, Hermansyah, S H Dilaga and M Cosijn (2018). Poster paper. International Leucaena Conference, Brisbane, 1-3 November 2018

The International Leucaena Conference (ILC) 2018  
The University of Queensland, St. Lucia Campus Brisbane, Australia 1-3 November 2018

