



ChemTech

## International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555  
Vol.12 No.03, pp 41-47, 2019

# The potential of lands under coconut trees for the integration of cattle-coconut farming in West Bolangitang, North Sulawesi Province, Indonesia

Fietje S.G. Oley<sup>1,2\*</sup>, Artise H.S. Salendu<sup>1</sup>, Femi H. Elly<sup>1</sup> and Richard E.M.F. Osak<sup>1</sup>

<sup>1</sup>Faculty of Animal Husbandry, Sam Ratulangi University, Indonesia

**Abstract** : Coconut cultivation is a leading commodity in tropical countries. Land under coconut trees is being used by farmers for grazing cattle. The goal of this study was to analyze the potential of land under coconut trees through the integration of cattle-coconut farming. Research samples were determined by purposive sampling and obtained 32 farmers who graze cattle on land under coconut trees in West Bolangitang, Indonesia. The results showed that the maximum potential of animals units was 4,744, the capacity increase in the cattle population based on land resources was 2,700, the maximum potential based on the head of farmers' family was 7,851.51, and the improvement of cattle population capacity was 5,808. The carrying capacity index of 16.86 indicated that the carrying capacity of the land area in the West Bolangitang is fairly high. This means that the maximum potential of the land resource is still greater than the feed requirements. Based on the potential of existing land under coconut trees, the real cattle population could be increased up to 16.86 times. The results suggested the forage introduction is necessary to support beef cattle farming. Based on the results of this study, if land under coconut trees is used as a source of forage, the cattle population can be increased, and this potential can be enhanced through the cattle-coconut integration approach that is environmentally friendly and sustainable, and this study suggests to farmers and the government that it is necessary to introduce qualified forage fodder to use the land under coconut trees.

**Keywords** : forage fodder, integrated crop-livestock systems, rangeland.

Fietje S.G. Oley *et al* / International Journal of ChemTech Research, 2019,12(3): 41-47.

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.120306>

\*\*\*\*\*