

## Comparison of sustainability in paddy-cattle integration in new and old colonies in Mahaweli “H” area, Sri Lanka

H.S.C. Hemarathna<sup>1</sup>, S.P. Dissanayake<sup>1</sup> and G.A.S. Ginigaddara<sup>1</sup>

### Abstract

*Mahaweli* is one of the largest development projects in Sri Lanka. *Mahaweli* “H” system is located in *Anuradapura* district which consists of new and old colonies. Identification of sustainability in old and new settlements is important to develop the living standard of community to minimize negative social, ecological and economic impacts. This study was conducted to compare the sustainability of paddy-cattle integrated farming system between new and old settlements. Stratified random sampling method was used to select 100 respondents. Questionnaire survey method was used to collect data. Both descriptive and quantitative analysis were utilized to analyze the collected data. According to the results, 67% of male and 33% of female farmers are involved in paddy-cattle integrated farming in new colonies where as 96% of male and 4% of females are involved in the same in old colonies. Farm families in both colonies consist of 4 household members on average. Majority of the farmers in old (61%) and new (67%) colonies have attended formal secondary education. Mean age of respondents varied between the two colonies where it was 52 years in old colonies and 45 in new colonies. Paddy farming was more dominant as primary occupation in old colonies (93%) than in the new colonies (65%) while cattle management was the main secondary income source of both colonies. Majority of the farmers (93%) in old colonies and 91% farmers in new colonies had cultivated 2.5 ha extent of low-lands in average. Further, the results emphasized that, 92% of old colony farmers and 78% of new colony farmers do not have their own pasture lands. Average household annual income in new colonies (Rs.330, 438.00) was higher than the old colonies of Rs.316,331. Many of the farmers (98%) have the membership in farmers’ organizations in both colonies. According to TSI values, new colonies are more sustainable (91.3%) than the old colonies (83.3%). In conclusion, paddy-cattle integrated farming system in *Mahaweli* ‘H’ system is sustainable and need more intension for further development. Further, the study reveals that well-planned veterinary services, proper marketing and efficient extension facilities are needed for ensuring the sustainability of paddy-cattle integrated farming system in *Mahaweli* H area in Sri Lanka.

**Keywords:** *Mahaweli ‘H’ area, New settlements, Old settlements, Sustainability*

---

<sup>1</sup> Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura. Corresponding author’s email: sahas123sadamini@gmail.com