

# **Mechanization, Livelihood Pattern and Labour Usage in Paddy Production in Dry Zone**

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## EXECUTIVE SUMMARY

In terms of the number of persons employed, in Sri Lanka, agriculture is ranked second despite its meager contribution to the GDP (7.9%). Similarly the rice sector also renders very less which is only 0.9 percent (CBSL, 2015). Of the total population employed in agriculture around half of them have direct or indirect links with the rice sector therefore, any technological application would have serious implications on the mammoth labour force that ekes out a living in this sector. Hence any policy changes directed at introducing technology in place of labour should be well thought-out. This study is designed to provide an assessment on the level of mechanization, livelihood pattern and labour usage of the population in major paddy growing areas under major irrigation conditions in the dry zone with reference to Anuradhapura, Polonnaruwa and Ampara districts.

Using the Multistage Sampling Technique 342 paddy farmers were selected. According to the findings, mechanization was mainly confined to land preparation and harvesting stages and for land preparation, two-wheel tractors were significantly used. For weedicide and pesticide application Knapsack sprayers were widely used and use of power sprayers was very limited. Machine harvesting was practiced by a majority (85.9%) and nearly 85 percent have used combine harvesters. On average, nearly 17 machine hours/acre has been utilized for land preparation and ploughing stages. Average total machine hour usage was around 30 hours/acre. Farmers (81%) experienced difficulty in finding agricultural labour and for 39 percent respondents; mechanization has been the reason to remain in agriculture. The prevailing state of mechanization in paddy sector has proved inadequate to attract the youth to farming. Mean average time that particular farmers spent in the field per season was 30.6 labour days and in terms of labour hours average total labour hours was around 245. Further it was revealed that mechanization has been a stimulator for the changing role of women in agriculture. In fact, female family labour contribution was higher than that of female hired labour in every district and male labour indicates the contrary. Prominent labour contribution in paddy farming was received from hired labour. According to the study, mechanization in paddy farming cannot be considered as a fully widespread phenomenon and more innovations and promotional activities should be introduced through well-directed extension.