

Effectiveness, suitability and financial viability of combine harvester balkar in Ampara districtM M Zahir Ahamed^{1*} and A N Ahamed²¹ *Department of Agronomy, Eastern University, Chenkalady, Sri Lanka.*² *Faculty of Applied Science, South Eastern University, Sammanthurai, Sri Lanka*

The study attempted to analyze the impact of using Balkar type combine harvesters, which is the most predominant combine harvester in this region for harvesting paddy on timeliness, harvesting cost, and labour use and evaluate effectiveness, suitability and financial viability of combine harvester in Ampara District. The major reason given for the use of combine harvester was severe shortage of labour during the peak season. The primary data needed to this study were gathered through a survey from 61 farmers and 62 owners of combine harvester. A descriptive evaluation and analysis were carried out to identify the objectives. The analysis of Variance (ANOVA) was used to find out the suitability, effectiveness and the Net Present Value (NPV) and Internal Rate of Return (IRR) were used to analysis the financial viability of the combine harvester. In addition to these techniques the partial budgeting was also carried out to compare the cost reduction in harvesting by combine harvester. The results shows combine harvester ensures rapid harvesting, reduces harvesting cost, minimize the labour requirement, and raises the farmer's income as well as machine owner's profit. The combine harvester replaced the labour by 75 to 85 %, reduced the harvesting cost by 50%. The results from the machine owner's survey indicated that the combine harvester was financially viable for the owners, and it was proved by the positive NPV and higher IRR when compared to opportunity cost of capital of combine harvester and the results also indicated the initial investment is an important factor while deciding the financial viability. The negative aspects of using combine harvesters were also reported as displacement of labourers, low quality paddy, climatic and soil constrains for the tyre type harvesters, non availability of local technical supports and the difficulties in fixing charges due to competitions. However it could be shows that the prospects for using combine harvesters for harvesting paddy is becoming popular in the Ampara district. With proper technical support, practical demonstration and appropriate training program profit of the farmers as well as machine owners can be increased.