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පේරා**දෙ**ණිය විශ්ව විදහලයේ ආර්රික විදහාව පිළිබඳ ශාස්තුපති (එව්.ඒ) උපාධිය යළහා ඉදිරිපත් කරන ලද ති බ ත් ධ ව ය යි

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ABSTRACT

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(minor tanks and anicuts) occupy an Minor Irrigation Systems important place in the agricultural economy of Sri Lanka. An estimated 25% of total paddy extent in the country comes under the command of minor irrigation schemes and by and large under the minor tanks. Under the traditional Agricultural System minor tanks and "Purana" (ancient) villages co-exist. Characteristic features of these villages are the subsistance level of economy and low level of income generation from various activities including agriculture. In addition, the availability of basic human needs is inadequate. These characteristic features indicate the lower level of welfare standards of the population. Land, labour and irrigation tank are the main resources available in these areas. The average extent in the study area ranged from 2.92-1.50 and 3.20-0.25 ha. for highland and lowland respectively. The annual family labour availability of an average farm family is high, ranging from 560-700 man days. However, most of the family labour available is of unskilled nature. This study has shown that 46-60 percent of the available labour is not utilized on any productive activity. Underutilization of land is indicated to a greater extent in two of the three villages where the cropping intensities were 64.56 and 79.18 against 131.18 in the third village. Returns to variable inputs is also low and in most instances it is less than 100 percent. Water use pattern for agricultural activities shows not only underutilization of tanks but also insufficient tapping of ground water resources. Attempts the physical, biological and Socio-Economic alleviate constraints and uplift the welfare of Purana Villages through

government and semigovernment programmes such as "Walagambahuwa Concept", "Wewesaba Concept" have not produced desired results. In conclusion, first, after an indepth investigation on the failure of above programmes, a study on effective farming system intergrating with chena cultivation, is recommended. Second, the production potential of fish husbandry and equatic plant products such as "Olu Eta", "Manel Ala" etc. needs to be researched. Third, for effective irrigation management, the existing water management practices should be strengthened by the utilization of alternate water resource such as irrigation wells. Finally, the excess population in minor tank areas with low potential should be encouraged to migrate to the newly created major irrigation schemes.