

**IMPACT OF CHRONIC KIDNEY DISEASE OF UNKNOWN ETIOLOGY
ON RICE CULTIVATION: A CASE STUDY IN MEDIRIGIRIYA,
SRI LANKA**

L.B.M.L.M. Gunarathna and K.P.P. Kopiyawattage

*Department of Agricultural Systems, Faculty of Agriculture, Rajarata University
of Sri Lanka, Anuradhapura, Sri Lanka.*

Prevalence of Chronic Kidney Disease of unknown etiology (CKDu) is a major health problem in the North Central province of Sri Lanka. According to literature, majority of CKDu patients are engaged in agriculture or related activities. This study aimed at exploring the socio-economic impact of CKDu on rice cultivation in Medirigiriya, because Medirigiriya reports the largest number of CKDu affected patients in Polonnaruwa district. A pre-tested structured questionnaire survey was conducted with randomly selected CKDu affected (n=60) and non-affected (n=60) paddy farmers. Data were analyzed using descriptive statistics and a regression analysis. According to the results, majority of the affected respondents were male (96%), married (95%), 41 to 60 years old (52%) and comparatively less educated compared to non-affected respondents. CKDu affected respondents have been engaged in agriculture more than 20 years. The affected respondents cultivate only 32% of their available land in average while it is 100% among the non-affected respondents. There is a rapid decrease of the extent of land cultivated by affected respondents while 12% of them have completely left agriculture due to poor health condition. The income from paddy is higher among non-affected respondents compared to the affected respondents. According to the result of regression analysis ($R^2=0.474$) cost of fertilizers ($p<0.05$), cost of labour ($p<0.01$), and cost of herbicides and pesticides ($p<0.01$) had a significantly positive relationship with income of the affected respondents while only cost of fertilizer ($p<0.05$) was significant among non-affected respondents. Making arrangements for CKDu affected paddy producers to get agricultural inputs at a reasonable price, strengthening of agricultural extension service, and introduction of weed competitive rice cultivars to minimize chemical cost are recommended through the findings of this study.

Keywords: Chronic kidney disease, Rice cultivation, Socio-economics factors