



Climate change impact of livelihoods of the agricultural sector farmers in Sri Lanka

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Even though there are existing research studies that has been conducted focusing on climatic impacts on agricultural sectors, a less focus has given towards up lifting the livelihoods of the farmers who has been involved in agriculture. Therefore, there is a clear necessity of a research to understand the livelihood impacts of farmers due to climatic changes and identify the strategies needs to implement to support the farmers. From a holistic perspective, supporting farmers towards resilience of agricultural sectors will have a direct impact on food security of the country [1].

Focusing on this, through the "Technology Enhanced Stakeholder Collaboration for Supporting Risk-Sensitive Urban Development (TRANSCEND)" project funded by University of Salford, UK, in collaboration with University of Moratuwa, has con-

ducted a study considering tea, paddy and sugar agricultural sectors in Sri Lanka upon identifying various problems in these sectors and the possibility of improving further. The primary data collection was done by the research team after visiting the relevant agricultural areas in Kaluthara (tea), Galle (paddy) and Pelwatta (sugar). As the second step, the discussions were done with relevant agricultural extension officers.

Some of the major impacts on livelihood patterns in farmers who are involved in these agricultural sectors are; changes in working hours, health concerns due to various decisions due to climatic changes, decrease the quality of plants and damages to plants. This study further revealed different strategies to support the livelihood of the farmers under the themes of community capacity building, financial support, water management, and planning and preparation.

The third step of the project was the dissemination of the findings. The first dissemination event was held with the participation of different stakeholders in the industry at University of Moratuwa on 19th December 2024. The second dissemination event was held in Bangladesh at Agriculture University, Bangladesh on 6th March 2025.

The below chart shows the most significant findings of this study.

Considered agricultural sector	Suggestions to overcome the impact on farmers' livelihood patterns
Tea	The expansion of programs aimed at strengthening farmers' capacity to manage climate challenges, coupled with increased labour training
Paddy	Developing an underground water distribution system to maintain soil moisture
Sugar	Climate-resilient cropping practices into farming systems should be encouraged and research and development



University of Moratuwa research team,
discussing with farmers



Dissemination event at University of Moratuwa



Validation with extension officers at
Lanka Sugar Company Ltd – Pelwatta



Dissemination at Bangladesh at Bangladesh
University of Agriculture

References:

[1] R. Jayasekara, "Water and Sustainable Agriculture in Sri Lanka," Ministry of Defence, 2020. https://www.defence.lk/Article/view_article/4922#:~:text=Droughts have become an annual,of Sri Lanka were affected.

Article by

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