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The Moragahakanda Irrigation Project & Its Impact on Environmental Poverty Within the Kuznets Curve Framework

Weerakkody, Y.S.[1*], Karunathilaka, K.M.S.L.[1], Weerasinghe, B.D.S.K.[2]
[1]*Faculty of Management Studies, The Open University of Sri Lanka, Nawala, Sri Lanka*
[2]*Faculty of Art, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*
**ysweerakkody@gmail.com*

Abstract

Environmental poverty (Lee Liu, 2012) is defined as the lack of a healthy environment required for the survival and development of society as a direct result of environmental degradation caused by human activities. When discussing environmental poverty, it is important to consider the Environmental Kuznets Curve (EKC), which describes an inverted U-shaped relationship between environmental degradation and income, where environmental quality initially declines and then improves with economic growth, meaning that environmental quality deteriorates in the early stages of economic development and improves later (Masaaki Kijima et al., 2010). The Moragahakanda Irrigation Project, implemented as the final phase of the Mahaweli Development Program in the Matale District of Sri Lanka, was introduced with objectives such as agricultural development, hydroelectric power generation, freshwater fisheries, resettlement, irrigation facilities and access to clean drinking water. However, discussions with residents revealed that despite these intended benefits, the project has created several new environmental, social and economic problems. Many stated that the construction of the project did not provide adequate solutions to their earlier challenges, and in some cases existing issues worsened, while they also reported environmental problems that did not exist before the project. The Moragahakanda project displaced 5,870 people from 1,181 families in 11 Grama Niladhari Divisions (Senanayake, 2018). Accordingly, the primary objective of the present study was to investigate the impact of the Moragahakanda Irrigation Project on environmental poverty. A sample of 361 people was selected from a population of 5,870 using stratified random sampling from 3 Grama Niladhari Divisions, although data were obtained from only 300 respondents. Primary Data were collected through a questionnaire including multiple-choice and open-ended questions, interviews and observations, and analyzed using SPSS software. A multiple regression model was used to measure the influence of socio-economic independent variables on the dependent variable of environmental poverty. Findings revealed that all independent variables had a statistically significant effect on environmental poverty. Considering the collected primary data and the observed details, the study confirmed that environmental poverty has further increased due to the social and economic factors resulting from the project construction. Although development benefits have been generated, they have not been equally distributed across all areas, and although economic growth has occurred, it has not yet improved environmental quality. Therefore, it can be concluded that some areas remain in the initial stage of the EKC curve and that social inequality, environmental damage, economic difficulties, unemployment and displacement have increased for the people living in the project-affected areas.

Keywords: *Environmental poverty, Kuznets curve, Moragahakanda irrigation project*