

Investigating the impact of socio-demographic factors on reservoir conservation interest

Silva M.B.V.A.^{1*}, Witharana A.¹, Randeni L.², Perera T.³

¹Department of Zoology and Environmental Sciences, University of Colombo, Sri Lanka ²Climate Change Secretariat, Ministry of Environment, Sri Lanka ³Irrigation Department, Colombo, Sri Lanka

Reservoirs provide a wide array of benefits to rural communities through ecosystem services. Conservation of reservoirs is a vital factor to ensure sustainable use of these ecosystem services. In the current context of reservoir project evaluations, the conservation interests of the neighboring community and their socio-demographic factors have not been considered. Therefore, the present study was formulated to address the gap in the current evaluation process in Sri Lanka. Deduru Oya reservoir was selected as the study site and the target respondents were the direct beneficiaries neighboring to Deduru oya reservoir. This study investigates the willingness of local communities for both 'monetary' conservation efforts and 'non-monetary' conservation efforts by means of 'time and labor'. A socio-economic survey was conducted through a structured questionnaire across 68 households for three months from January to April 2023. The questionnaire comprises both closed and open-ended questions. The findings of this study derive the relationship between conservational interests and socio-demographic factors thus demonstrating the lack of applicability of typical conservational approaches which has been used in major reservoir projects in Sri Lanka. In conclusion, the rural communities' willingness for reservoir conservation by non-monetary means of spending their time and labor has a higher significant impact ($R^2 = 20.8$ %) than monetary conservational interests ($R^2 = 18.8$ %).

Keywords: Conservation, ecosystem services, reservoir, socio-demographic

Acknowledgement: We would like to express our sincere gratitude to Deduru oya local community and all the external parties who helped us to gather information for the research activities.

*Corresponding author: venurisilva97@gmail.com