## Perceived Social Identity based on Affiliation to Natural Commons within the Community: A Case study in a Tank Cascade System in Sri Lanka

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This study investigates how the farmers who are receiving environmental services from the Mahakanumulla Tank Cascade System (MTCS) in Anuradhapura district perceive their social identity based on their affinity to the natural commons (i.e., village tank and water channels) they are benefiting from. First, following a psychometric research paradigm, the study attempted to design a measurement scale to gauge the perceived social identity of the individuals in the study population. Second, with reference to the study population, the study attempted to investigate how the perceived social identity of the MTCS inhabitants varied with their demographic characteristics. Data were obtained from a cross-sectional survey of 463 randomly selected adult village respondents in 13 village communities of the MTCS. Structural Equation Modelling (SEM) was employed to evaluate the validity of the measurement model. The results confirmed the validity of the model. As depicted in the validated measurement model, perceived social identity had two dimensions; (1) consciousness of belonging to the group and (2) affection generated by belonging to the group. Construct means of the above 2 dimensions of the scale were moderately high in the study population. This indicates that the individuals of the MTCS communities maintain a high sense of identity as recipients of environmental services from the MTCS. Perceived social identity significantly (p<0.05) varied in terms of respondents' certain demographic characteristics. Fulltime farmers showed a higher social identity compared to the others who had engaged in off-farm income activities as their mainstay. Farmers who owned farmlands showed higher perceived social identity than the farmers without their own farmlands. Smallholder farmers reported a higher social identity than the farmers with relatively large-scale holdings. Older farmers (> 48 Y) showed higher social identity compared to the younger farmers. This study has implications for designing and restructuring participatory management strategies to ensure sustainability of natural commons such as village tanks.

**Keywords:** Natural commons, Mahakanumulla tank cascade system, Perceived social identity, Structural equation modelling