

## **Ethnobiology of Cascaded Tank Village System (CTVS) in the dry zone of Sri Lanka - A case study in Kapiriggama CTVS in Anuradhapura District**

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### **Abstract**

Ethnobiology is an interdisciplinary study of how human cultures interact with and use their native plants and animals. A better understanding of ethnobiology of Cascaded Tank Village System (CTVS) in the dry zone of Sri Lanka assists in enhancing the well-being of both people and the ecosystem. CTVS in the dry zone of Sri Lanka was recently recognized as a Globally Important Agricultural Heritage System (GIAHS) by the FAO. The present study was carried out in Kapiriggama CTVS (22 village tanks cascade in Malwathu Oya river basin) in Anuradhapura District with the objective of documenting ethnobiological use of plants and animals indicating different CTVS land use components such as Upstream water hole (*Godawala*), Tank water body (*Wewa*), shrublands (*Landa*), Shifting cultivation (*Chena*), Upstream tree belt (*Gasgommana*), Upstream meadow (*Perahana*), Hamlet buffer (*Thisbambe*), Hamlet (*Gangoda* or home gardens), Interceptor (*Kattakaduwa*), Downstream drainage (*Kiulela*) and Paddy fields (*Welyaya*). Data were gathered during 2014-2015 period through observations and interviewing local people of CTVS aged 40-82 years. In addition, relevant available data were incorporated as appropriate during the analysis. Results show that 105 plant species and 54 animal species have tangible or intangible uses. Many species have multiple uses and diverse use categories of plants included; edible products (40 species), fuel wood (28 species), timber-commercial (20 species), timber-subsistence (36 species), medicine (54 species), livestock feed (8 species), handicrafts/ornaments (7 species), tools/utensils (28 species), plaited ware/mats (2 species), thatching/roofing (4 species), fiber/fabric/cord/ropes (11 species), magico-religious/ritualistic use (10 species), ornamental/shade plants (10 species), soil conservation/soil fertility enhancing (2 species), fences/hedges/trellis (3 species), decorations/ dyes/ tannin (4 species), oil/resin gum (4 species), stimulant/masticatory (5 species), and poison/ pesticide/pest repellent (6 species). Different animal groups were represented by freshwater fishes (19 species), reptiles (3 species), birds (13 species), and mammals (19 species). The usable categories are edible meat (33 species), source of edible eggs (3 species), medicine (1 species), ritualistic applications (11 species), pets (4 species), animal products (3 species) and ornaments (6 species). The present ethnobiological knowledge base acquired from Kapiriggama CTVS has potential applications in ecosystem based development interventions; on-site as well in other similar situations.

**Keywords:** *Cascaded Tank Village System, Ethnobiology, Sri Lanka*

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