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A comparative socio economic survey on utilization of aquatic plants in a coastal and in an inland area

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Abstract

Even though Sri Lanka is rich in naturally available aquatic plants, freshwater as well as marine, their utilization is very poor. Therefore this study deals with finding the pattern of utilization and the knowledge level of aquatic plants representing a coastal area and an inland area.

Two villages were identified through a rapid recognizance survey based on the availability of aquatic plants. Kalpitiya was selected as the coastal area and Mihintale was selected as the inland area. A structured questionnaire was given to randomly selected, 50 individuals in each village. Information regarding the utilization, exploitation level, knowledge level about the aquatic plants was collected. The data was analyzed using Microsoft Excel 2007.

Even though both villages followed nearly the same pattern for usage of aquatic plants utilization of aquatic plants in inland areas was higher compared to coastal areas. Major utility of aquatic plants in both sites was 'as a food' (100%). Other identified uses were medicinal purposes (above 80% for both villages), offerings, ornamental plants and weaving purposes. The utility percentage in Mihintale area for offerings, ornamental plants, weaving purposes were almost double the values shown by the Kalpitiya area. Aquatic plants are used as bio fertilizer only by the residents of Mihintale area. The most largely extracted marine aquatic plant in Kalpitiya was *Gracilaria edulis* (100%). *Ipomoea aquatica* (92%) and *Alternanthera sessilis* (88%) were the mostly extracted freshwater aquatic plants in Kalpitiya. However, *Aponogeton crispus* (8%), *Nelumbo nucifera* (20%) and *Nymphaea pubescens* (8%) were extracted to very less extent. In contrast only 44% respondents in Mihintale consumed *Gracilaria edulis*. On the other hand freshwater aquatic plants were highly consumed in Mihintale area. *Ipomoea aquatica* (100%), *Alternanthera sessilis* (96%), *Aponogeton crispus* (76%), *Nelumbo nucifera* (88%) and *Nymphaea pubescens* (92%) were the highly consumed species. The Knowledge about aquatic plants is very poor in both Kalpitiya (72%) and Mihintale (60%) areas. In Kalpitiya only 4% of the respondents had a good knowledge about the nutrient value of aquatic plants whereas a comparatively high value was shown by respondents in Mihintale (8%). Most of the people consume them only because they used to it since childhood.

Utilization of aquatic plants is not in a satisfactory level in both study areas and the knowledge about the nutritional composition of these plants is also very poor. Immediate steps should be taken to enhance the knowledge level and to aware people about the utility values of aquatic plants in coastal areas as well as inland areas.

Key words: Socio economic, aquatic plants, coastal, inland area