

Ritual plant utilization in landscapes planning. Case study: Riverside in Denpasar City.

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Background and Purpose of the research

Balinese people used various types of plants for offering ceremonies. This ceremonial activity is based on the beliefs of the Balinese Hindu community, namely the philosophy of *Tri Hita Karana* which upholds the harmonization of the three good relations of fellow human beings, environment, and God. The role of plants is very vital because each ceremony, the community uses plant parts from roots, stems, leaves, flowers, and fruit. The plants used for offering ceremony means are known as ritual plants. The role of the Balinese community in maintaining plant diversity can be seen from the variety of types of ritual facilities. This study will reveal the diversity of plant species used in ceremonial facilities such as *Canang Sari*, *Kwangen*, *Segehan*, *Daksina*, *Pejati*, *Peras*, *Ajuman*, *Sesayut*, and *Penjor*. The existence of ancient ritual plants is effortless to find in the natural environment of Bali. However, the rapid development of tourism led to the conversion of land from agriculture into a built-in space, enabling the loss of the diversity of ritual plant species. Changes in the components of ritual means can occur due to the loss of ritual diversity. Educating the community regarding the importance of the existence of ritual plants is essential to maintain and preserve ritual plants so that in the future Balinese people, especially those living in urban areas, can re-coexist with ritual plants. This study aims to identify plants found in ritual ceremonies, analyzing plant species potentially used in landscape design, and arranging the landscape plan of the riverside in Denpasar by utilizing selected plant species.

Method

Literary studies were carried out to identify the types of plants contained in each ceremonial facility. Descriptive and quantitative analysis of plant species was carried out to determine the value of these plants both functionally and aesthetically. In preparing a landscape plan, a case study was carried out at the border of the *Tukad Mati* River in Denpasar City. The research steps taken are inventory, analysis, synthesis, and planning.

Results

The results of this study revealed that there were 16 plant species in *Canang Sari*, 13 plant species in *Kwangen*, 18 plant species in *Segehan*, 30 plant species in *Daksina*, 43 plant species in *Pejati*, 15 plant species in *Peras*, 23 plant species in *Ajuman*, 21 species plants in *Sesayut*, and 16 plant species at *Penjor*. Several species such as coconut, areca nut, betel and banana are used in 9 types of ritual facilities. Potential plants in landscape design number 25 species, 9 of which fulfill conservation functions, ten species accomplish aesthetic services, and six species perform architectural roles. The green governance plan in the case study carried out at the border of the *Tukad Mati* River in addition to maintaining existing plants also utilizes potential ritual plant species. The concept of a green governance plan refers to the function of protecting riverside areas, recreational purposes, and public education functions related to the existence of ritual plants.

Conclusion

The diversity of plants has been identified from 9 types of ceremonial facilities of the Balinese Hindu community. *Pejati* ceremony facilities have the highest plant diversity is 43 species of plants and the Kwangen ceremony facilities have the lowest diversity of plants, namely 13 plant species. 25 plant species have the potential to be used as landscape plants. This plant is recommended for riverside landscape planning in Denpasar city. The concept of green governance refers to the function of protecting river areas, recreational functions, and public education functions.

Keywords: ritual plants, plants diversity, bali, landscape plants, green space, riverbank