

CONSISTENCY OF FARMERS NAMES AND AGROMORPHOLOGICAL DIVERSITY OF LOCAL TARO VARIETIES FOR CONSERVATION AND USE IN CONTRASTING PRODUCTION SYSTEMS IN NEPAL

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Taro (*Colocasia esculenta* (L.) Schott) is a good example of root crops of the family araceae that is important for livelihoods for small farmers and has potential for income generation. Diverse farmer varieties of taro are conserved by 900 households of Begnas village (600-1400m) in the middle hills of Nepal. Nepalese farmers classify both taro (*Colocasia esculenta* (L.) and tannia (*Xanthosoma sagittifolium*) as taro and are locally known either as *Karkalo* (leafy taro) or *pindalu* (corm taro) depending upon plant parts being used for food. Cultivar diversity was found high in Begnas ecosite (24) followed by Terai eco site Kochorwa (3) and High Mountain ecosite Talium (1). The objectives of the study are to understand farmer's method of describing taro cultivars, their consistency in naming in terms of morphology (aerial and underground parts), use value and local adaptation, and to characterize the diversity of selected taro landraces using farmers and IPGRI's descriptors. The study also aims to document uses of taro local varieties as distinguished by agro-morphological characteristics and ethno-botanical tools and to understand the extent and distribution of taro diversity managed by farmers. Farmers distinguished taro diversity by the number of farmer-named cultivars, their specific morphological characteristics and economic use values. Farmers, particularly women farmers, were reasonably consistent in describing and identifying the cultivars using farmers' descriptors. Isozyme analysis suggests that taro diversity of Begnas village be found to be genetically distinct. We found that distribution of taro diversity in Begnas eco site (600-1400m) is influenced by local adaptive traits of taro cultivars and their specific use value. The extent and distribution of taro genetic diversity can be related to multiple use values and preferences for local cuisine. Farmers use high level of diversity as a sustainable resource base in order to make appropriate farm management decisions. This taro diversity enables inter and intra species diversity to survive and adapt to different environments, new pests and changing climates and farming systems. Blending local knowledge on its specific adaptation and use value with scientific understanding can guide conservation strategies on how to conserve and deploy taro genetic diversity for the benefits of human kind.