Globally, conservation of forest bioresearches is hampered by lack of information on the resources and on how communities interact with the resources. In most of African countries, the interaction of local communities with resources such as forests through their Indigenous Knowledge Systems (IKS) has played a great role in the conservation of natural resources. Nevertheless, IKS is fast getting eroded due modernization. The aim of the study was to generate information on the forest status in terms of species composition. Vegetation data was collected from 6 transects sampled to represent the variety of ecological conditions in the forest. These were: Mararani (Coastal forests), Mangai (Acacia-Commiphora woodland), Bodhai (Riverine influence on forests), Sankuri (Lungi of Forest), Hulugho (Acacia–Commiphora woodland), Sangailu (Dryland forests & not gazetted). The data collected was analyzed using parametric and non parametric methods. The findings indicated that the forests of Ijara Sub County are rich in species composition with a total of 386 plant species recorded of which 130 were woody species. Dominant families, namely Mimosaceae and Euphorbiaceae accounted for 10.8% and 9.2% respectively of all plant species recorded. The study concludes that the current anthropogenic threats may lead to detrimental and irreversible ecosystem degradation and attendant loss of certain species.