World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:18, No:07, 2024

Traditional Lifestyles of the 'Mbuti' Indigenous Communities and the Relationship with the Preservation of Natural Resources in the Landscape of the Okapi Wildlife Reserve in a Context of Socio-cultural Upheaval, Democratic Republic of Congo

Authors : Chales Mumbere Musavandalo, Lucie B. Mugherwa, Gloire Kayitoghera Mulondi, Naanson Bweya, Muyisa Musongora, Francis Lelo Nzuzi

Abstract: The landscape of the Okapi Wildlife Reserve in the Democratic Republic of Congo harbors a large community of Mbuti indigenous peoples, often described as the guardians of nature. Living in and off the forest has long been a sustainable strategy for preserving natural resources. This strategy, seen as a form of eco-responsible citizenship, draws upon ethnobotanical knowledge passed down through generations. However, these indigenous communities are facing socio-cultural upheaval, which impacts their traditional way of life. This study aims to assess the relationship between the Mbuti indigenous people's way of life and the preservation of the Okapi Wildlife Reserve. The study was conducted under the assumption that, despite socio-cultural upheavals, the forest and its resources remain central to the Mbuti way of life. The study was conducted in six encampments, three of which were located inside the forest and two in the anthropized zone. The methodological approach initially involved group interviews in six Mbuti encampments. The objective of these interviews was to determine how these people perceive the various services provided by the forest and the resources obtained from this habitat. The technique of using pebbles was adopted to adapt the exercise of weighting services and resources to the understanding of these people. Subsequently, the study carried out ethnobotanical surveys to identify the wood resources frequently used by these communities. This survey was completed in third position by a transect inventory of 1000 m length and 25 m width in order to enhance the understanding of the abundance of these resources around the camps. Two transects were installed in each camp to carry out this inventory. Traditionally, the Mbuti communities sustain their livelihood through hunting, fishing, gathering for self-consumption, and basketry. The Manniophyton fulvum-based net remains the main hunting tool. The primary forest and the swamp are two habitats from which these peoples derive the majority of their resources. However, with the arrival of the Bantu people, who introduced agriculture based on cocoa production, the Mbuti communities started providing services to the Bantu in the form of labor and field quarding. This cultural symbiosis between Mbute and Bantu has also led to non-traditional practices, such as the use of hunting rifles instead of nets and fishing nets instead of creels. The socio-economic and ecological environment in which Mbuti communities live is changing rapidly, including the resources they depend on. By incorporating the time factor into their perception of ecosystem services, only their future (p-value = 0, 0,121), the provision of wood for energy (p-value = 0,1976), and construction (p-value = 0,2548) would be closely associated with the forest in their future. For other services, such as food supply, medicine, and hunting, adaptation to Bantu customs is conceivable. Additionally, the abundance of wood used by the Mbuti people has been high around encampments located in intact forests and low in those in anthropized areas. The traditional way of life of the Mbuti communities is influenced by the cultural symbiosis, reflected in their habits and the availability of resources. The land tenure security of Mbuti areas is crucial to preserve their tradition and forest biodiversity. Conservation efforts in the Okapi Wildlife Reserve must consider this cultural dynamism and promote positive values for the flagship species. The oversight of subsistence hunting is imperative to curtail the transition of these communities to poaching.

 $\textbf{Keywords:} \ \text{traditional life, conservation, Indigenous people, cultural symbiosis, forest}$

 $\textbf{Conference Title:} \ \texttt{ICWCB 2024:} \ \texttt{International Conference on Wildlife and Conservation Biology}$

Conference Location : Ottawa, Canada **Conference Dates :** July 11-12, 2024