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Let us save Nilgala

The Nilgala region, nestled in the Uva Province and Moneragala District, boasts an area of approximately 12,432 hectares. Its geographic coordinates are 81° 20' longitude and 7° 12' latitude. The altitude varies between 150 to 250 meters in the savannah grasslands, while scattered mountains reach up to 350 to 750 meters. The area is unique due to its position at the border of the dry zone, characterized by flat lands, and the hilly terrain of the Uva/Badulla region. This diversity gives Nilgala its distinct characteristics, combining both dry zone and rainforest features.

■ Medicinal Importance

One of the most remarkable aspects of Nilgala is its savannah grasslands, abundant with medicinally important plants like aralu (*Terminalia chebula*), bulu (*Terminalia bellirica*), and nelli *(Phyllanthus emblica)*. These species play a crucial ecological role in the region. This area is also known for the presence of the endemic fruit 'gal siyambala' *(Dialium ovoideum)*, thriving in the mixed environs of Nilgala.

Throughout history, Nilgala has been recognized for its rich medicinal plant diversity and has been protected even during the time of ancient kings. Archaeological studies have revealed remnants of palaces in the region, adding to its historical significance. In recent times, herpetologists have placed significant emphasis on Nilgala due to its biodiversity.

■ Ecological Importance

However, despite its ecological importance and historical significance, little attention has been given to the sustainability of medicinal plant extraction in Nilgala area. The region's villages are economically poor and heavily reliant on the forest for their livelihoods. In the past, attempts were made to introduce pineapple cultivation to improve local livelihoods, but these efforts resulted in the loss of much forested landscape.

Several years ago a research study was conducted with Dr.Chandana Jayasinghe and Prof. T. Jayasingham to assess the demand for medicinal plants in the surrounding neighbourhoods, map the availability of these plants in Nilgala, and study their ecological dynamics in the field. Additionally, experiments were conducted on seed germination of commonly collected plants like aralu, bulu, and gal siyambala.That research utilized questionnaires to gather information from various stakeholders, including villagers, traditional medical practitioners, collectors, and social groups. These data shed light on the collection practices, harvesting methods, post-harvesting procedures, and selling prices of medicinal plants. It was evident that many villagers heavily depend on plant extraction as their primary or major source of livelihood.

■ As a major source of income

It was found that the Nilgala region is rich in medicinal plant diversity, with several important species like aralu *(Terminalia chebula)*, bulu *(Terminalia bellirica)*, and nelli *(Phyllanthus emblica)* being ecologically significant. These plants form the tree savannahs and play a crucial role in the local ecosystem.

The villages around Nilgala are economically poor and heavily reliant on the forest for their livelihoods. Medicinal plant extraction is a major source of income for many villagers, with a significant proportion of them depending on it for their sustenance.

The study identified various threats to the region's ecology and biodiversity. These threats include deforestation, encroachment by agriculture (paddy fields and chena cultivations), grazing, destructive honey collecting methods, burning of savannah for medicinal plant collection, illegal extraction of timber, construction activities, and illegal gem mining.

Prior to that study, little emphasis had been given to detailed plant studies or the dynamics of medicinal plants in the Nilgala region. As a result, there is limited knowledge about the sustainability of medicinal plant extraction in this area.

The study explored the germination of commonly collected plant seeds such as aralu, bulu, and gal siyambala. Germination rates were found to be relatively low, particularly for some species like bin kohomba *(Munronia pinnata)*, which is highly demanded but scarce.

The vegetation analysis revealed different vegetation clusters, including dense forests dominated by bala *(Nothopegia beddomei)*, areas with single-species dominance likewa *(Cleistanthus patulus)*, and savannah grasslands dominated by medicinal trees such asaralu *(Terminalia chebula)*, bulu *(Terminalia bellirica)*, and kahata (Careyaarborea).

■ Ensuring the sustainability of resources

The study highlighted the socio-economic issues faced by the villagers, including low prices for their medicinal plant products, transportation problems, water scarcity, and various social challenges.

The study emphasizes the need for conservation efforts to protect the medicinal plants and ecology of Nilgala. It suggests regulations on extraction, seasonal harvesting practices, and conservation measures to ensure the sustainability of these valuable resources.

It is important to highlight the ecological importance of Nilgala's medicinal plants, the economic significance for local communities, and the urgent need for conservation and sustainable practices to safeguard the unique biodiversity and livelihoods in the region.

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