

with a percentage of 22.63, Moderate erosion areas extend over 434.01km² with a percentage of 32.43 and low erosion area extends over 454.97 km² with a percentage of 33.99. The results of map analysis were confirmed through field verifications. The soil erosion is high in the high slope regions and in the areas where soil conservation methods are inadequate or poor.

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Comparison of litter decomposition rate constant for Yagirala and Horton Plains natural forests of lowland wet zone and montane zone of Sri Lanka

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An estimation of rates of litter decomposition was carried out in two forest types; Yagirala Forest Reserve (FR) in the Low Country Wet Zone and Horton Plains natural forest (NF) in montane zone of Sri Lanka. Yagirala forest reserve was located between 6°21' to 6°26' north altitude and 80°6' to 80°11' east longitude in the lowland wet climatic zone in Sri Lanka. Horton Plains natural forest was located between 6° 47' - 6° 50' north latitude and 80° 46' - 80° 51' east longitude in mid country of Sri Lanka.

Three 300m line transects with three plots (100 m distance between 2 plots) were established in each forest. Litter decomposition rates were determined using the mixed species litter bags method. A total of 54 bags were placed in the both Forests (9 replicates for one plot). The experiment was conducted for a period of 8 months. The rates of decomposition of litter recorded during this were fitted to the exponential decay model proposed by Olson (1963).

$$x / x^0 = e^{-kt}$$

Where, x is the weight of litter remaining after time 't', x^0 is initial weight of litter and k is decomposition rate constant. Results revealed that the mean annual litter decomposition rate constant for moderately exploited Yagirala forest reserve was 2.19 year⁻¹ while the value for Horton Plains natural forest was 1.35 year⁻¹. Litter accumulation rates for Yagirala Forest is 668.86 tons ha⁻¹ year⁻¹, and this value for Horton Plains natural forest is equal to 226.54 ha⁻¹ year⁻¹. According to the results, it was clear that Yagirala forest reserve situated in the low country wet zone recorded higher litter decomposition rates compared with Horton Plains natural forest situated in the Montane zone of the country.

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Development of a rapid environmental assessment methodology for roads sector rehabilitation projects

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The concern for the environment is ever growing and counter measures are also taken by many countries to minimize environmental impacts arising from developmental activities. One tool utilised to ensure that developments are sustainable is Environmental Impact Assessment (EIA) which has been a mandatory requirement in Sri Lanka since 1993. However, due to considerable time taken by the EIA process particularly for extensive projects such as road sector projects concerns have been raised as to the delays caused by the process which in certain instances might even cause loss of foreign funds. Although detailed assessments are required in some cases it is not always true. Road rehabilitation projects do not fall into the category of prescribed projects of the National Environmental Act unless sensitive areas are involved and resettlement of more than 100 families are involved. However, foreign funding agencies generally require an environmental assessment of even such projects prior to approving of funding which generally cause delays since environmental assessors tend to follow the same pattern of assessment for all projects regardless of the scope. Numerous methods have evolved over the years to conduct EIAs some of which address environmental impact