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Abstract Book

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Tropical biodiversity: surviving the food, energy and
climate crisis

Partnerships



V-01-8: Impacts on Amphibians at the Dumbara Highlands, Sri Lanka

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Sri Lanka is a biodiversity hotspot, a total of 94 out of 111 amphibian species are endemic. We are currently facing a period of biodiversity mass extinctions; 21 amphibians have become extinct in Sri Lanka. Also the human population growth is getting higher around in protected areas, a serious threat to the remaining biodiversity trapped in rain-forested Southwestern wet zone, Knuckles & the Central highlands. Only few natural forests now survive, with many of the relicts threatened by invasive alien plants. Habitat loss & fragmentation, climate change, diseases, pesticides use, gene flow, deformities, etc., have been hypothesized as major causes in the global decline of amphibians which is a solemn issue nowadays. Chena cultivations, illegal timber felling & encroachments, man-made fire, soil erosion, garbage dumping, habitat destruction, unplanned constructions, rock exploitations, illegal gem mining & land fillings, conditioned the habitat loss & fragmentation in the Knuckles range. Climate changes; prolonged droughts, forest dieback & acid rains are also an identified growing threat for amphibians. Several diseases & deformities have been observed in addition to several dead adult amphibians, although reasons for mortality are unknown. The aforementioned threats are exacerbated by montane forest fragments surrounded by cardamom & tea plantations involving intensive pesticide application. Road kills have also been identified as a major threat to amphibian fauna. 7 out of 30 amphibian species which recorded in the Knuckles range are point endemic; but several previously unknown species await description. They would be at risk of extinction before they are even named. Threats to the unique recognized biodiversity & the challenges to its conservation, demand urgent international & national level scientific attention, policy & planning. Therefore, it is our own responsibility to conserve our natural heritage without any delay.