

Population Change and Its Impact on Deforestation in Sri Lanka: A Conceptual Framework

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Human overpopulation has been identified as one of the major environmental issues in the world. Sri Lanka has lost much of its natural forests during last two hundred years and this trend has been accelerated after independence where the population of the country has increased by three times within the period about 60 years. Sri Lankan population will continue to grow and it will reach to 25 million around 2060. Deforestation is one of the emerging environmental issues in the country and it impacts to the biodiversity which disturbs the ecological systems.

Direct causes of deforestation are of two folds: natural causes and causes due to human activities. While Natural fires, Floods, Hurricanes and Pests are directly impacting deforestation, conversion of forested land for agriculture, logging and mining, construction of roads, dams and infrastructure developments are the man-made causes including civil war. Many underlying factors due to social processes may be contributed indirectly to deforestation. These social processes are driven by mainly demographical, economical, technological and political & institutional factors. Thus, direct causes on human activities are influenced by these factors. Population increment, density & distribution, migration, and life cycle features of the population can consider as demographic factors. Economic factors could be more important as underlying driving forces. Commercialization on market growth and consumption pattern especially for timber can have an impact to direct causes. Economic structure and level of urbanization & industrialization of a country may influence direct causes under economic factors. Changing new agro technologies and new applications in the wood sector might have positive impact to deforestation through human activities. Variation of agriculture production can cause to agriculture expansion which can be identified as a direct cause of human activities. Political and institutional factors can be strong underlying drivers to deforestation in developing countries. These factors mainly include formal policies, policy failures and property rights of the country. The above mentioned factors will be utilized to develop a conceptual framework to resolve the issue of deforestation in Sri Lanka.

Key words: Biodiversity, Deforestation, Demography, Environment, Population.