Deforestation

Literature, Russian Literature

Running Head: deforestation Deforestation ID Amazon River Basin provides habitat to a large number of fauna and flora in South America. It also accommodates a huge human population which is increasing at an exponential rate. In addition to that, it also acts as a source of employment and income for thousands living in the region along with being the source of fresh water and other hydraulic sources for industrial units and residences present in the region. Other than being a source of drinking water and livelihood, ecological stability of Amazon River Basin acts as an incentive for various investments activities that are expected to be taken place in the area. However, excessive deforestation in this region due to human activities and natural calamities has risked the stability of ecosystem in River Basin which has also become a threat to many species of plants and animals. There are various reasons behind this high rate of deforestation in this area. One of these causes is human activities. According to Coe, Costa and Soares-Filho (2009), “ Global economic and regional population and development pressures have resulted in high rates of deforestation in the Amazon River basin and about 17% of the Amazon basin (excluding the Tocantins) has been deforested by 2007, mostly in the eastern and southern portion of the basin (p. 165)”. Primary economic activities include cattle ranching, soy bean and other cash crops production, mining and constructions of industrial and residential units in the area near River Basin. Hence, excessive logging, housing, road and other infrastructure building are perceived as some of the major causes in deforestation. Selective logging and other canopy damage also endangers existence of shade area in the rainforests (Foley et al., 2007). Lastly, forest fires, droughts and floods are also considered as secondary

causes of deforestation in the region. Excessive logging and deforestation has endangered existence of many species of plants and animals that are present in the forest shades and streams which may face drying in the absence of rain forests. Some of the animal species that are directly affected by this deforestation and are facing a risk of extinction include white cheeked spider monkeys, Brazilian bare-faced tamarins, giant otter, jaguars, hyacinth Macaw, Golden Lion Tamarin, Amazon river Dolphins, poison dart frogs, black spider monkey and many other tree dwelling species (Sample, 2012; Worldwidelife, 2013). The region has a high biodiversity as it contain over 40, 000 plant species, 3000, freshwater fish species and 370 types of reptiles (Worldwidelife, 2013). Continued deforestation can risk existence of all these living beings. Some of the main plants that are directly affected by deforestation are Virola and giant Kapok which are used for ply wood in commercial construction (TheAmazon, 2007). Other hardwoods like teak, mahogany, rosewood are also used extensively by locals (Wallace, 2011). Other than extinction of plants and animals in Amazon River Basin, deforestation can cause migration of aquatic and terrestrial animals causing disturbance in regular ecosystem. Other than species being directly affected by deforestation, the disruption faced by ecosystem in Amazon has also risked continuity of life in this region. Due to deforestation, soil erosion takes place which makes the deforested area unsuitable for further plantation (Coe, Costa & Soares-Filho, 2009). In addition to that, lack of humidity retention also affected water retention in springs present in Amazon River Basin which affects continuous supply of fresh water and also aquatic plants and animals present in it. Furthermore, presence of microorganisms is also

affected by mass deforestation. Since these microorganisms are responsible for soil fertility, therefore further cultivation may face problems. In addition to that, use of pesticides in plantations in deforested area further pollutes rest of the water reservoirs and forests which is injurious for other species. Since geographic researchers have emphasized greatly on preservation of forests in Amazon River Basin as they contribute to more than half of oxygen present in the planet, there are various measures that humans need to take in order to establish sustainable practices in and around Amazon River Basin. It can be suggested that instead of deforesting more land for cultivation, local farmers can use effective agricultural techniques to use the land that has been degraded already. In addition to that, measures like agroforestry, poly-cultural fields and floodplain orchards can provide more incentives to local cash crop producers (Butler, 2012). Secondly, different government policies can also help in curtailing deforestation by large corporations and local authorities. Strong surveillance in terms of corporate social responsibility by large commercial and industrial entities can ensure safety of Amazon River Basin. Government can also train local residents that can ensure provision of employment for them in other fields other than just agriculture and cattle rearing. Furthermore, it is important that illegal logging is prohibited and more effective logging methodologies are employed by trained professionals only. Restricting selective logging can also limit hazards caused to surrounding soil and plantations. Instead of growing cash crops, government can provide incentives to farmers of rainforest crops which can be less injurious to local ecosystem and species living in it (Butler, 2012). Amazon River Basin is a hub of large biodiversity

and supports life activity of the whole planet. Over the last few decades, deforestation due to human activities and natural disasters has greatly endangered the lives of species living in this region. Logging, hydroelectric activities including construction of dams, mining etc, has caused severe damage to the life in Amazon. Where there are plants and animals that are directly affected by deforestation, there are many other species and living organisms that are affected by disrupted ecosystem. However, restriction on selective logging, emphasis on corporate social responsibility, restrictions on large corporations, training provided to local farmers and creating sources of employment for local population instead of cattle ranching can help reducing the rate of deforestation. References Butler, R. (2012). Sustainable Agricultural Development in the Tropics. Retrieved 21 August, 2013 from http://rainforests. mongabay. com/1002. htm Coe, M. T., Costa, M. H. & Soares-Filho, B. S. (2009). The In? uence of Historical and Potential Future Deforestation on the Stream Flow of the Amazon River – Land Surface Processes and Atmospheric Feedbacks. Journal of Hydrology, 369, pp. 165-174. Foley et al. (2007). Amazonia revealed: forest degradation and loss of ecosystem goods and services in the Amazon Basin. Front Ecological Environment, 5(1), pp. 25-32. Sample, I. (2012). Amazon’s Doomed Species Set to Pay Deforestation’s ‘ extinction debt’. The Guardian. Retrieved 21 August, 2013 from http://www. theguardian. com/environment/2012/jul/12/amazon-deforestation-species-extinction-debt TheAmazon. (2007). Information about the Deforestation of the Amazon Rainforest. Retrieved 21 August, 2013 from http://www. theamazon. org/deforestation. html Worldwildlife. (2013). Amazon Species. Retrieved 21

August, 2013 from http://worldwildlife. org/places/amazon Wallace, S. (2011). Farming the Amazon. Retrieved 21 August, 2013 from http://environment. nationalgeographic. com/environment/habitats/last-of-amazon/