## Systems of natural science essay

Environment, Disaster



## Introduction

This ecosystem is known as the mangrove swamp of the Borneo Island which is a peat swap forest that is located along the coasts of two different countries which are the Indonesia and Malaysia. It is an ecosystem that has been considered to be an ecosystem within the tropical wet climatic zone.

The abiotic component is made up of peat soil. The soil is acidic and usually nutrient deficient. The soil in the region is known to be rarely flooded and associated with the building up of organic matter. The major biotic components are those animals' species that are either endemic or nonendemic. Those animals that are considered endemic in that swamp forest are the Hipposideros doriae (bats), zosterops flavus (Javan white-eye) and Setornis criniger (hooked billed bulbul). There several forms of timber in the forest. There are several other animal species existing in the swamp forests. Some common biotic components include the arowana fish, otters,

waterbirds, crocodiles and monitor lizards (Loucke, 2001).

The level of threat in the Borneo island forest is growing because of the planned forestry expansion operations into such forests for major source timber. This would reduce the amount of timber and lead to a major deforestation which would have a negative effects on the biotic and abiotic components of the island. Problems from bush burning are other major problems the forest is facing currently due to various human activities for agriculture or commercial purposes (Loucke, 2001).

The major future problems or effects that could results from those highlighted threats to this ecosystem is that of the destruction of the present biotic components that are available making those animals that are at the risk of being endemic to become endemic. It could also result in the destruction of the swamp soil nutrient making it difficult for the plants to grow well and consequently affecting the animals that feeds on those plants.

The most important guidelines that can help preserve this forest is that which focuses on prevention of the overexploitation of the forests and this can be achieved by preventing activities such as cutting of the timber from such swamp, prevention of hunting there and provide a law against any form of fire clearing around the forest.

## References

Loucks, C. (2001). Borneo peat Swamp Forests (IMO104). Tropical and Subtropical moist broadleaf forests.

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