

Environmental impacts and benefits of sustainable forestry research paper sample

[Business](#), [Management](#)



EXECUTIVE SUMMARY

Sustainable forests are managed effectively in order to preserve the ecosystems and the forest. The ecological systems that are reliant on the forest are the streams, watershed and the species that inhabit within the environment. The forest is a working environment that can be harvested for the production for paper and pulp products. The sustainable forest management is an outcome of applying the forest to the benefit of all while conserving the ecological systems that are reliant of the forest. Healthy streams are reliant on the forest for their coverage. The forests also enable the lowering of the temperature in the environment. The replanting and forest management of snags must be considered in order to provide effective ground cover for the new seedlings and the provision of habitats for the primary and secondary excavating species in the forests. There are six references accessed in this research paper.

Keywords: Sustainability, forest, management, biodiversity, ecosystems, streams, watershed, snag, replanting, trees.

- Introduction of Sustainable Forestry

Sustainable forest management is the sustenance and the administration of the decaying deadwood in the forest, watershed, habitats, streams and living trees. The appropriate administration of the forest ecosystems is necessary due to its attribute of being essential for the perpetuation of wildlife and humanity. The forests are requiring protection due to human beings being components in the ecological system. The research topic that will be explored is the importance and the implications of the sustainability in the management of the forests (Naturally Wood, 3).

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The sustainable management of the forests enables the improvement of the air quality. The trees ingest pollutants that include nitrogen dioxide, ozone, carbon dioxide and suspended particle matter that is retained in the air. The trees in the forest serve in order to decrease the temperature of the air. The reduction of the air temperature has the outcome of decreasing the creation of pollutants that are reliant on temperature for their formation. An example of one of the temperature related pollutants would be ozone (Grinspoon et al. 14).

- Impacts of Sustainable Forestry

The deforestation of areas results in the loss of habitats, loss of biological diversity, a decrease in the services that are provided to the ecological system) carbon cycling, nutrient provision and water supply. The alteration of the ecosystems services is a cause that undermines the status of being protected regions. The issue that is more challenging is: Are the regions where the local communities are involved in the conservation of the forests areas more effective than the regions where the local communities are excluded from the forest conservation programs? The use of the community involvement in third world nations with regards to the forest conservation programs has not been appropriately addressed (Ellis & Porter- Bolland 1971).

The important connection that is present between the maintenance of the watershed and sustainable forest management has been extensively reviewed. Research has discovered that a minimum of 65% of forest watershed coverage is required for the sustenance of a healthful aquatic community. Forest overage is an indicator of the wellbeing of the life in the

stream. Research has demonstrated that a minimum of 65% of the duration of the longitude of the stream system is required to be in a forest area for the stream to manifest a rating of excellent. A minimal 45% forest coverage is required in order for the streams to have wildlife that is in good health.

Research has demonstrated that forest trees provide sociological and psychological benefits to humanity (Canadian Council of Forest Ministers, 2).

- Benefits of Sustainable Forestry

In the application of sustainable forest management, all species of wild life can be saved. Specific species of avian that include the pileated woodpecker that needs holes in trees in order to nest. Dead wood that is located in the forest may be perceived as a waste product. In certain forests the birds utilize more than one third of the trees in order to build their nests. The birds build their nests in snags. Snags are dead trees that continue to remain upright. In North America, it has been recorded that over fifty five species of birds utilize the snag cavities in order to create nests. The birds that have the cavity nesting characteristic are categorized as primary excavators. Invertebrates, amphibians, reptiles and mammals also used the snags in order to create nests. The salamanders may use the dead logs as nests (Convention on Biological Diversity 7).

The mammals may encounter relief from the midday heat by using downed wood and dead limbs. In addition, young trees may sprout from a nurse log. A nurse log is a tree limb that has initiated the decomposition process and provides an optimal substrate for the younger trees during their period of reaching maturity. The decaying wood is also useful as ground cover. The ground cover that is provided by decaying wood prevents the deer from over

grazing on the seedlings (Convention on Biological Diversity 7). Any modification in the forests habitat creates advantages and disadvantages. The forests are continuously engaged in cycles of death, regeneration and growth. These cycles may cause a species to inhabit the trees and the other vegetation that is inherent (Center for Watershed Protection and US Forest Service 2).

The appropriate efforts should be conducted in order to manage a diverse range of forest structures. The maintenance of the forest diversity is served optimally by applying a wide range of management initiatives. These initiatives would include enabling the harvesting activities to take place on federal land that would not be restricted only to thinning the forest. The increased dedication to the attributes of old growth in the forest land by the retention of snags and large trees is important (Center for Watershed Protection and US Forest Service 2).

The sustainable management of the forest is important to the watershed. The trees in the forest are able to capture the rainwater in their canopies. The capture of the rainwater by the canopies of the trees diminishes the amount of water that is allowed to contact the ground. The trees in the forest absorb water through the roots. The absorption of moisture by the roots of the trees enables the soil water storage and extends the quantity of time prior to the rainfall being converted into runoff. The sustainable management of forests enables the production of less amounts of runoff from rain. The reduced characteristic of runoff has the potential of diminishing the floods that take place downstream that cause the erosion of stream channels that destroy the wildlife habitats (Center for Watershed

Protection and US Forest Service 2).

Mexico has been observed to be one of the countries with the greatest variety of biodiversity. The inquiry is that if the delegating of protective status to regions provides enhancement for their forest conservations and sustainability measures. This is an issue that has been developed with regards to the past land utilization patterns and the practices of deforestation. In accordance with the 2005 Global Forest Resources Assessment, Mexico is the fourth ranked nation on the globe with regards to the attrition of forests. The deforestation rate has been decreasing where it was assessed at 500, 000 hectares annually in the decade of the 1990s. The present national trend of deforestation in Mexico is a cause for alarm (Ellis & Porter- Bolland 1971)

The harvesting of trees in a forest is a practice that requires sustainable management practices in order to maintain the balances of the ecological systems in the forest. The resource management of the forest with regards to harvesting can be accomplished by replanting four or five native species in the natural regeneration processes. In British Columbia, the standards that are applied to sustainable forest management have enabled the British Columbians to be acclaimed as one of the most effective forest sustainability managers. The timing of the harvests are conducted in order to avoid damaging the soil and the protection of the more than on eleven hundred diverse species of reptiles, amphibians, mammal, fish and birds that inhabit the forests of Canada. The forestry service in British Columbia established determinations that are reviewed on a five years basis. This review enables the harvest to be produced upon the most up to date information,

government policies and practices. The supplying of timber can be delayed in the event that the conditions have changed. The changing conditions can include a deficiency in the trees, concern for the depositing of silt in the waterways or an insect epidemic (Naturally Wood 3).

- The Future of Sustainable Forestry

The efficiency of areas that are protected from the purposes of biodiversity conservation has been a topic of heated debate over the past several decades. It is not questionable that these protected areas are contributors toward the diversity of conservation of the native species. The debate has been revolving around the manner by which and how they preservation of protected areas is converted into effective biodiversity strategy. There are many who debate that the protected regions provide greater effectiveness in the event that the management and decision makers enact a policy of excluding the local communities from participation in the conservation efforts (Ellis & Porter- Bolland 1971).

There are others who debate that the protected areas are more effective when the local communities are provided with a participatory role with regards to the management of resources and conservation. There is a third debate that states that the designating of protected areas is not a guarantee to conservation and that there are a number of distinct categories of protected areas that are required. These protected areas include the integrating of forest management actors in addition to the members of the local communities. The effective conservation of the forest biodiversity has been demonstrated to be reliant on the regions that have not been delegated any status of being protected zones. In these circumstances, strict

local organizations and regulations are required in order to provide effective conservation of the forest biodiversity (Ellis & Porter- Bolland 1971).

The harvesting activity that takes place on federally owned lands has been sharply reduced over the past twenty years. There are number of privately owned lands that are intensively administrated as sustainable forests. Many of the state laws require that trees that are harvested be replanted promptly, including the thinning and fertilization of the stands. The dual characteristics of this type of sustainable forest management enable the creation of a diverse range of habitats for wildlife (Center for Watershed Protection and US Forest Service 2).

- CONCLUSION

Sustainable forest management is important for the maintenance of the forest. The forests provide a number of ecological systems that interact with a large number of species. The sustainable forest management is essential to managing the watersheds. Research has demonstrated that streams that are in excellent conditions are reliant on the forest areas that are in their proximity. Humans also derive psychological and social benefits from the presence of forests and sustainable forest management.

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