

# [What in temperate deciduous forests or tropical rainforests essay](https://assignbuster.com/what-in-temperate-deciduous-forests-or-tropical-rainforests-essay/)

The tropical rain forest is one of the largest natural vegetation throughout the wet tropics, and one of the world’s most widespread biomes.

The rainforest biome is located in the tropics, mainly within the equatorial climate belt. The tropical Rainforest form an integral part of the earth’s biosphere, covering around 2% of the earth’s surface and being present in every continent except Antarctica. It includes the Amazon and Congo basins and the coastal lands of Ecuador, West Africa, and extreme south-east Asia. The defining characteristics of the tropical rain forest are temperature and rainfall. It is an extremely different and multifaceted environment. The Rainforest Climate is the wettest of the vegetation zones of the world.

A rainfall of 100 mm in a month is considered to be dry in a rainforest. Rain usually falls in short downpours during mid-day, after which, the sun shines once again, causing all the rain to evaporate again. The temperatures in the rainforests do not vary appreciably throughout the year, and holds more than half of the world’s animals and plant life to which these climate conditions they are adapted to. The tropical rainforest is an important natural resource found in humid tropical areas where high concentration of solar radiation throughout the year promotes a rich variety of natural vegetation. These areas have a small annual temperature range, with high and constant temperatures. For human subsistence to survive, there are various types of stressors people have to become accustomed to, in order to cope with such an environment, allowing them to take benefit from the resources available to them.

Several strategies may be prominent in human adaptations to tropical rainforests, each of which reflects efforts to deal with the variety and difficulty of the habitat. The challenge of the tropical forest to human populations lies in how to make it provide more for their purposes without destroying its rich diversity. The tropical rain forest’s rich pool of life forms is a biological wealth that short-term gain should not influence people into destroying. Discussion So what kind of strategies are these people of the forests using to keep these environmental stressors down? In definition, environmental stressors are physical, chemical, and biological restrictions on the effectiveness of species and on the development of ecosystems1.

When contact to environmental stressors increase or decrease in amount, environmental responses result. In this case, Stressors in the tropical rainforest can be natural environmental factors, or they may result from the activities of humans. Some environmental stressors use a relatively local influence, while others are regional or global in their range. Stressors are challenges to the reliability of ecosystems and to the quality of the environment, which is later discussed. There are various types of strategies used by the people of the rainforests which all serve to acquire resources and benefit the ecosystem in a way that these resources can be used and obtained again through these environmental stressors; over prolonged periods of time.

There are three foremost types of strategies that are significantly used by people living in the rainforests to minimize the effects of these environmental stressors as well as obtaining subsistence resources. These strategies fall under farming, hunting and gathering, and fishing strategies. Farming comes in two forms which are profoundly practiced in rainforests. The first type is Subsistence Farming which is practiced by most of the native people. People practicing this type of farming grow food in order to suit their own needs.

For example, shifting Cultivation among the American Indians in the Amazon Basin in Brazil; native tribes in Papua New Guinea, and intensive subsistence cultivation and small holdings are practiced in Nigeria or Ghana in West Africa. . e. wet rice cultivation. The second type is Commercial Farming where crops are grown and animals are kept for sale in the markets. For example, plantation agriculture such as rubber plantation/ oil palm plantation in West Malaysia, and commercial livestock ranch and beef cattle braze are proficient in Amazon Basin in Brazil.

Shifting cultivation is an agricultural system used in which fields are cropped for fewer years than they are allowed to remain uncultivated. In this approach to agriculture, the nutrients gathered in the forest biomass are made available to crops on a period basis. It is a conservative measure that, when practiced according to tradition preserves forest density and provides sustained yields. In swidden agriculture, an area of land is cleared by cutting the standing vegetation and then burning it, after it has had time to dry. Burning brings several changes in the physical properties of soils.

It kills parasites, insects, fungi, nematodes, and pathogenic bacteria that interfere with crop productivity. In studies in Africa, Nye and Greenland (1960) examined that when forest is cleared and burned the heating of the soil leads to increased fertility, which is mainly as a result of the change in the state of nitrogen mineralization occurring in the beginning of the rainy season. 2 Burning also destroys seeds and vegetative material all of which can lead to large crop of weeds; eliminating animal and insect pests which is beneficial in any effort to cultivate crops. Swidden horticulture protects the intricacy, natural to the ecosystem. It protects the natural controls by avoiding concentration of food sources for anthropod pests, protecting the soil from leaching and erosion, and providing intense shade that discourages the migration of sun loving weeds.

It also in so doing reduces expenditures for fertilizers and pesticides. The genetic diversity found within the rainforests provides valuable varieties of plants which help maintain and improve domestic crops. Wild plants often contain genes which can be crossed with regular crops to make them better protected against pests and diseases. Without a variety of strains, crops can easily be destroyed by bacterial or fungal diseases. The new forest that it helps to create provides a higher net yield for humans.

Practices of swidden cultivators assure the renewal of the forest, also known as secondary succession. Here, crops planted are intercropped with root crops and plantains through small, multiple, scattered plots in the forest for a productive forest succession which according to Clarke (1976) provide seeds that can recolonize the cultivated land when it is abandoned3. In relation to this, Animal husbandry as a strategy is also used. The understanding of how to care for and manage livestock so that the animal’s requirements for good health and safety are a man’s requirements for the use of these animals is met in the forest biome. In the humid tropics emphasis has been given to root crops-manioc and sweet potatoes in the Neotropics, yams in Africa and taro in Asia.

According to Ruthenberg (1971) these crops yield a high output per unit of labour and per unit of land. Thus, they are pest-resistant and can be left in the ground until needed. Increase in farming may advance by changing land, growing cereal to these crops; by promotion of tree agriculture, through multiple cropping, by greater use of technological effort. Work capacity is not constrained by humid heat, but moderate and steady levels of activity enhance comfort and well-being. Avoidance of thermal midday provides rest, prevents overheating, and is socially beneficial. 4 Fishing and animal husbandry strategies practiced by sedentary populations inhabit coastal or riverine habitats as they find it easier to become sedentary than semi nomadic hunters.

Offer huge resources that promote increased dependence on horticulture. Resources such as fish, aquatic collected. Specific techniques include extraction of poison from plants which is thrown to fishes, occur during dry season. Another strategy in which human populations are immensely reliant on are hunting and gathering strategies. Given the periodicities of tropical trees, seasonal nomadism is required for adequate exploitation of the fruits and nuts of the forest.

Many indigenous people survive through hunting directly on the resources of the rainforests through technological hunting artillery. They eat wild game and use the plants for food and medicine. Many identify certain species as sacred and essential parts of their life. When these resources are destroyed, the people lose their homes, their food, and their way of life. It is important that the people of the forests make use of tropical forest resources in variable ways through appropriate hunting technology and close knowledge that reflect local habitat characteristics, periodically and seasonally. Use of bow and arrow increases chances of multiple kill.

Lances are used on larger animals, while blowguns are used against arboreal fauna. Hunters have various hunting goals that reflect changes to resources and that affect the methods used. Linares (1976) noted that hunting in the neighbourhood of planted gardens may have partially eliminated seasonality and scheduling problems, which amplified the biomass of selected animals that live at the edge of the forest and served as a substitute for animal domestication. “ Garden hunting” is still practiced among many inland South American groups, such as the Guaymi and the Cuna5.

Close knowledge- through movement note location of trees that are flowering and fruiting and their next hunting expedition. Carneiro (1970) noted that one of the main reasons for the lack of sedentary villages in many tropical forest areas is the necessity of relocating to maintain productive hunting6. Reminiscent of hunting, the gathering of forest products is subject to the irregular periodicities and seasonality of the tropical forest. Forest populations have traditionally engaged in concentrated gathering efforts during the dry season, not only because of product availability, but also because of the greater relieve of travelling during that time. Gathering is nutritionally significant not so much for the calories it provides as for its mineral, vitamin, and micronutrient content. In hunting, the men do not fail to notice the presence of plant resources and may collect or consume them on the spot.

Wide varieties of products are gathered, but main contributors, by volume, are few in number. Although it is possible to find groups that rely almost only on hunting/gathering in tropical rainforests, closeness to horticultural groups and the ease of growing plants in this ecosystem have led most populations to become at least part-time cultivators. An additional strategy also used is Village fissioning. Fissioning practices are commonly seen in lowland rain forests in lower population densities. The ease and frequency of village fissioning in South American tribes is striking. Carneiro (1961) considers that villages rarely reach carrying capacity, but fission well before they reach the point of overshooting their resources.

As population increases, stresses and strains increase with it. Weak leadership and a lack of inner political controls do nothing to discourage a village group from splitting off from its parent community. Thus, there are no environmental deterrents to village fissioning. Suitable land is easily found and the huge network of streams and rivers helps travel7. In simple terms, in the deficiency of both internal and external deterrents, tropical rainforest tribes follow the path of least resistance and seek prevention of the stresses that come with enlarged population density. Conclusion It is relatively clear that rainforests are almost entirely located in developing nations.

The resources of the rainforest can provide a quick source of land and income to these countries. Lumber and beef industries supplying American needs are primarily to blame. As a result of human overpopulation, displaced residents from areas bordering rainforests are also clearing rainforests to use the land as well as hunting rainforest animals for food. While native populations have been doing this for centuries, these newcomers are becoming an increasing problem.

It is these environmental stressors that are the result of these subsistence strategies, all of which help cope and minimize the effects of the forest biome. However, it is also the case that in several countries there are moves towards managing the rainforests for a sustainable future. These strategies include conservation of areas in national parks with core areas restricted, and other areas that allow native settlements as in Malaysia for example. Other strategies include sustainable management of the forest by replanting strategies; and developing rural village communities for local populations to reduce pressure on the forest. These Sustainable management techniques will help provide a long lasting biome for the people of the forest, for them to yield and to achieve the goal of long-term resources through sustainability of the ecosystem without damaging the environment at the same time.