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Introduction

The Amazon region is located in South America, east of the Andes. Sixty per cent of it is located in Brazil. The other 40% is located in Bolivia, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname and Venezuela. The Amazon constitutes 40% of South America's land mass. With a length of approximately 7,100 km the Amazon Basin is the largest river basin in the world. Many other rivers flow into and off of the Amazon River. Some of these rivers and sub-basins are the Negro, Xingu, Madeira, Tapajos, and the Jurua. These different sources of water constitute one fifth of the world's fresh water.

The Amazon sustains the world's richest diversity of birds, freshwater fish and butterflies containing nearly 40,000 plant species. This biodiversity is what makes the Amazon so unique and necessary to the planet. The amount of water carried by the Amazon and its tributaries varies during the seasons. When there is a lot of water through heavy rainfall, the river will flood the surrounding forests. This creates a unique ecosystem. It also means that the river can grow to be a hundred kilometres wide.

For thousands of years more than 350 indigenous and ethnic groups have lived in the Amazon region. As indigenous territories continue to be destroyed by deforestation and ecocide rainforest communities continue to disappear.

Today, more than 30 million people live in the region. Although most live in large urban centers, all residents remain dependent on the Amazon's ecosystem services for food, shelter and livelihoods. The expansion of population leads to an increasing deforestation.

The Amazon rainforest is the forest that grows in the tropical basin of the Amazon river. One square kilometre of Amazon rainforest can contain about 90,000 tons of living plants. This constitutes the largest collection of living plants and animal species in the world. One in five of all the birds in the world live in the rainforests of the Amazon. To date, an estimated 438,000 species of plants of economic and social interest have been registered in the region with many more remaining to be discovered or cataloged. More than one fifth of the Amazon rainforest has already been destroyed. The forest which remains is threatened. People who care for the environment warn about the loss of biodiversity. They also point out that releasing the carbon which is stored in the trees will increase global warming.

Definition of Key Terms

Biodiversity

Biodiversity is the variation of life forms within a given ecosystem.

Biome

Biomes are climatically and geographically defined similar climatic conditions communities of plants, animals, and soil organisms, and are often referred to as ecosystems.

Deforestation

Destroying forests by the processes of humans' logging and/or burning of trees and plants in a forested area in order to make room for something else, especially agriculture.

Reforestation

The process of planting trees in areas that have suffered from deforestation.

River Basin

“The land area drained by a river.” (dictionary.com)

Sustainable Development

Developing and improving economically, socially, politically or environmentally in a way that will be able to be continued long-term.

Sustainable Resources

Resources which use can be maintained long-term without harming the environment.

Climate Change

A significant change in the statistical distribution of weather in a region, area or globally, which can be natural or man-made.

Desertification

The process of land becoming desert while also having all qualities of a desert.

General Overview

The Amazon region is quickly developing. Some actions taken are illegal and not sustainable at all. But sustainable development is the only way to solve the problem of overpopulation and deforestation in the Amazon region. It is much more beneficial and sustainable to leave the forests to provide ecological services, than to use the land for agriculture as it is fertile but needs to be cleared through procedures such as slash and burn. Furthermore the deforestation of the Amazon rainforest leads to tremendous amounts of greenhouse gas emissions.

Sustainable resources

The resources found in the Amazon are some of the most valuable resources in the world. The Amazon is also the leading exporter of many of these resources. For example, bauxite is one of the most common ores and is used extensively in manufacturing industries. The Amazon supplies 15% of the world's bauxite. Yet while the countries supplying the bauxite, the forest is suffering, which will be worse for these nations in the long-term.

Wood

The main export product of the Amazon region is wood, which can be recycled and re-used but is not a sustainable resource. The only way to make it sustainable would be to plant new trees directly after cutting some down. But even through this procedure the trees would not grow fast enough to do the same effect as the down-cut trees would have done.

Energy

Energy is a sustainable and renewable resource which could be used in the Amazon region. Because of the massive water flow and the abundance of water the Amazon has potential for creating energy through dams and energy plants. If dams were built, however, the area around the Amazon and water systems were completely destroyed with the ecosystems.

Fishing

Most people in the Amazon region live off fishing. The human population is increasing along the rivers and the main species of fish are suffering from over-exploitation. An other problem is the pollution of the water systems, such as mercury pollution from gold mining in smaller streams. Because of the population increase along the river untreated sewage has become a greater issue. The building of dams to supply energy to these people has also damaged the aquatic ecosystems by stopping the flow and migration of many species. In the Amazon each species has an effect on others, and if one becomes extinct the whole region will suffer.

Sustainable agriculture

The indigenous people of the land understood the earth, and what species would flourish in which locations. They mainly grew products that were natural to the land, and therefore did not overexploit the soil. They grew things like palm trees, Brazil nuts, and various forms of fruit trees. If these techniques were employed today, the productivity of the already depleted land would improve and would be more sustainable since around 60 % of deforestation is due to agricultural needs.

Indigenous communities

The export of natural resources does not only damage the environment but it also has a negative effect on the indigenous people of the Amazon region. In 2006 the WWF had to help creating an agreement between the Achuar people and Pluspetrol, an Argentinean oil company, because the company polluted the Achuars main water source, making it useless

and destroying various ecosystems. Most of the indigenous people understand their natural environment and don't exploit it. However, overpopulation is a major problem in the Amazon region. This is the cause for several lakes and tributaries to suffer from over fishing. But organizations have taken initiative to teach the local people about conservation and sustainable fishing. Organizations have also given many indigenous people connections to local markets to sell their fish providing them with income, and since it is sustainable, it is beneficial to both the environment and the development of the local communities.

Timeline of Key Events

Date	Description of event
1867	Amazon river opens to international trade
1942	Brazil enters World War Two, demand for rubber from the Amazon rises
1962	First big highway is opened, it passes through parts of the Amazon
1967	Big iron ore deposits discovered in the Amazon
1972	UNEP is formed after a conference in Stockholm, the trans-Amazon highway opens
1976	UN Habitat is the first global meeting to connect the environment with human settlements
1980	Gold is discovered, the Amazon gold rush starts
1982	The U.N. World Charter for Nature is published, highlighting the dependence on natural resources and the need to control exploitation
1988	Satellite photographs of Amazonian forest fires and deforestation are used to show the negative effects of agriculture and ranches in the Amazon. The first Amazon congress of indigenous people is held to stop the building of an hydroelectric dam.
1992	The first Earth Summit is held in Rio de Janeiro, along with the creation of Agenda 21, the Rio declaration, and the Forest Principles.
1996	The Summit of the Americas takes place and shows the need for joint efforts.
1999	The World Commission on Forests and Sustainable Development releases the report about forests, the resources that come from them, and the way they are managed.
February, 2005	Brazil recognizes the need for revised development plans.
2008	Second Indigenous people's congress is held to protest new dams being built.

Relevant treaties, UN resolutions and actions taken

The U.N. has been involved through UNEP, and has created various protocols and treaties on the issue of sustainable development. However, only a few of them are specifically about the Amazon region. Many of the protocols and treaties passed by the U.N. on sustainable development and on environmental protection also apply to the Amazon Region. The Kyoto

Protocol on global warming, created by the United Nations Framework Convention on Climate Change (UNFCCC) is quite relevant to this issue because of the effect the Amazon has on the global climate. The original objectives in the Kyoto Protocol were to: let ecosystems adapt naturally to climate change, guarantee that food production is not threatened and to provide the means for economic development to advance in a sustainable way.

Partnerships have been formed during the United Nations Conference on Trade and Development (UNCTAD) in Sao Paulo that supported bio-trade in Brazil that would protect the Amazon region. It also came up with many ways to keep developing while keeping the Amazon as intact as possible.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) also has created treaties concerning the issue of developing the Amazon region, and the people's right to land, territories, and resources.

The U.N. has been working through many bodies to provide ways to achieve sustainable development. The bodies have been working very closely with Brazil and the OAS and the ACTO. Together, all the organizations are finding solutions to over-exploitation while trying to find ways to develop the Amazon region economically.

The United Nations also set up the Tropical Forest Assessment Project to help publish reports on the state of the Amazon region. It also brought a lot of the world's publications together to classify it and put it to the best use possible. It also provides some of the most reliable statistics concerning deforestation in the Amazon region. The U.N. publishes these full-length reports every 5 years:

- Human Rights and Climate Change, 28 March 2008 (A/RES/7/23)
- Agenda Item no. 4 Human Rights/ Climate Change, Human Rights, and Indigenous Peoples, 4 February 2008 (E/C.19/2009/CRP. 2)

Positions of major countries involved

Brazil

Most of the Amazon is located in Brazil, therefore any plans for the region must be agreed upon by Brazil if they are to be effective. President Luiz Inacio Lula da Silva said "We all understand that the Amazon needs to develop, but we also understand that there had to be a development model that is well thought-out, and not predatory" (Zunia). Brazil now understands that there must be a balance between environmental issues and economic issues. Brazil is still facing a big challenge of balancing protection of the Amazon with its need for agricultural land, energy production, and the exportation of minerals and resources.

Brazil has already created the Sustainable Amazon Plan, the Brazilian Forest Policy, and various other programs and projects which they are following and urging other nations around the Amazon to follow and create similar plans. Yet there are still so many sides of the issue in Brazil, there's the issue of urbanization and the destruction and pollution it causes, there's the issue of cattle ranches and farms taking the place of forest, and there's the issue of over-exploitation of all the natural resources found in the Amazon. Without ways to assure economic security, the people will resort to activities that will cause irreversible damage.

Amazon Cooperation Treaty Organization (ACTO) Member States

The member states for ACTO are the eight nations that are a part of the Amazon Basin - Bolivia, Brazil, Colombia, Ecuador, Guyana, Perú, Suriname and Venezuela. They all have similar views on sustainable development in the Amazon region. They are all aware of the importance of the environmental issues concerning the Amazon, yet they all want to benefit from the resources found in the region. ACTO also discusses issues concerning the sovereignty of each nation when it comes to the Amazon region and the use of resources. Together, all the nations are working toward conserving the Amazon river basin and all the ecosystems within it.

World Wildlife Fund (WWF)

The World Wildlife has started programs such as the Amazon Initiative to help these regions develop and grow. They have successfully completed various projects in the region and have created the Amazon Initiative to “preserve most of its biodiversity, maintain its ecological functions and services, and support its sustainable development for the benefit of its people and the planet as a whole” (WWF, Amazon Initiative). They have also created other programs such as the ones mentioned before to help locals create sustainable income. Their help and input has been of great value to the Amazon region.

United Nations Environment Program (UNEP)

UNEP has given funding to various other programs such as the Organization of American States (OAS) and the Organization of the Amazon Cooperation Treaty (ACTO) to help them start various projects on sustainable development. UNEP has also passed and implemented various projects such as the Amazon Waters Project, which strives to help identify areas that need the most help, to help countries organize and create a regional view on sustainable development, and to aid in the creation of laws concerning the Amazon Basin (UNEP).

Indigenous People of the Amazon

Many times a government will have one view while the people of a nation will have another. This can often create conflicts between government policy and what the people are willing to do. For example, in Peru in June 2009, the president had to repeal an Amazon development law granting permission to people for mining, logging, or drilling, without consulting the indigenous people of the land. The people living on this land then protested for two months until the law was finally revoked. Protests and riots such as this one have been going on in other nations as well such as Ecuador. The government is overlooking the indigenous people’s views when there are laws being made concerning the development of the Amazon region. The indigenous people have been living on the land for thousands of years and have not over-exploited it. It is only since the urbanization and increase in need of land that there have been so many issues with conserving the natural resources (Mongabay).

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