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### Ecosystem in South America

Many people take for granted the balance of nature. Humans believe that everything is widely accessible and will always be there to use. Seldom does it cross the mind where humans get their resources and the consequences of constant use. South America is a prime example of this lack of awareness. Many people know South America for the beautiful culture, wondrous sights, and flavorful food. People forget that a lot of natural resources that are exported in the world are exported from South America. People get food, minerals, fossil fuels, biodiversity, knowledge and so much more from their ecosystem. However, the ecosystem in South America is constantly being used by countries all around the world, with many people forgetting the need to protect and replenish all the damage that humans have done. There can be serious consequences, impacting humans all over the world, if countries do not act to protect South America. Fortunately, there are countries that are taking action, and there are steps that can be taken to help give back to the environment what has been taken for granted. In order for everyone to see the importance of the ecosystem in South America, it needs to be known that South America's climate is important to the sustainability of the region which also supports and connects to the world. The world receives many important resources from South America, the people of the South American region benefit from the exporting of goods and services which leaves a

positive impact on the entire world, and lastly, the animals in the South American region have interspecies relationships that help them to survive which benefits the world ecosystem.

To begin, the number of resources that are exported out of South America is inordinate. There are several cash crops that are grown and produced in South America that are sold all around the world. The resources that are being exported are critical to the survival of the global climate. Both socially, economically, and politically. It is no secret that South America has a wonderful climate to grow fresh foods, and a greatly diverse ecosystem to support a variety of animals. However, the expansive mineral wealth and freshwater are overlooked. South America has fisheries and ports on the Caribbean Sea, Atlantic, and Pacific Ocean, bringing in large quantities of fish and resources. Additionally, the humid and tropical climate of South America supports many crops. Cashews, brazil nuts, papaya, pineapple, avocado, and guava are just a short list of the foods that are native to and exported from South America. National Geographic gives a very detailed and expansive list on all of the important exports that the world receives from South America. National Geographic puts into perspective just some of the variety that South America has to offer:

In addition to potatoes and quinoa, grazing animals such as sheep, llamas, alpacas, and vicuñas also thrive in cold climates. These animals are bred for their meat and wool, which is used in high-quality textiles exported throughout the world (“South America:Resources”).

It is very easy to buy things and to not realize where the resources to make these things come from. The wool that is used in many people’s clothing, and the meat that

is eaten in South America and all over the world, was given from the ecosystem. The world will lose so many things from not protecting the ecosystem, that the effects are almost incomprehensible.

There are several resources that are taken out of South America that are important but countries choose to exploit the environment. Trees are one of those resources that are important, but many people take too many of them which harms the planet, and strips many people from what they need:

Forestry is the management of trees and other vegetation in forests. It is a major economic activity for tropical South America, especially the Amazon River basin. Many high-value tree species, such as mahogany and rosewood, are native to the rain forest. Lumber from these trees is exported to foreign markets for use in cabinets and floors. Some countries have tree plantations. Chile, for example, is an important exporter of wood chips, plywood, and paper pulp (“South America:Resources”).

Two very important cash crops in the world are made and exported from South America. Cacao and coffee are two goods that are renowned worldwide to be very important and at times expensive. Well, South America is the world’s largest exporter of coffee and used to be the world’s largest exporter of cacao beans. The climate in South America plays a major role in the growth of these critical cash crops. Also, like America, corn and soybeans are grown in South America with soybeans becoming a very lucrative crop in the Pampas. Brazil is third in the world for the number of beef that it exports and Argentina is another country that exports a large quantity of beef. The vast number of minerals and fossil fuels found in South America are important to

people all over the world. From cars to cell phones, the natural resources in South America are so vital to modern living.

These exports support the world, yes, but also the people of South America. The ability of more jobs being made, and more people able to get a job relies on supply and demand in the business industry. Because South America is such a large exporter in the world, more people are able to work. The increase in demands for these goods requires more people to manage the fields, work on the assembly lines, and any of the other jobs that are required to get such a quality and quantity of products to the world. This chain effect helps to lift people out of poverty and helps support the economy of South America. More people are able to work and support their families which increases their quality of life. Additionally, their children are given more opportunities due to the fact that there's a chance for them to make money and to advance in the world. Hopefully, more jobs being available to adults can help decrease the number of child workers in the world. Children will hopefully be able to go to school and finish their education because their parents are able to afford a living, and because the government is being supported by the large quantity of exports.

All of this is just a summary of a small number of exports from South America. There is so much more, and so much more information to consume about the natural resources alone. The amount of resources and information is so great it is easy to lose track of the significance of this reality. Without South America, it is almost impossible to imagine how detrimental it would be to the entire world to lose all of these important materials and goods. So many people, not just in South America, will be lacking large amounts of food and products. A great number of jobs will be lost and

modern day life will not be the same. The ecosystem bears the responsibility of fueling and feeding so many different countries that without it, so many people would be without. Some lives could even be lost. It is critical and crucial that world leaders are aware of the need for action. Work needs to be done to protect and restore the very ecosystem that feeds and sustains everyone. There are an infinite number of benefits that come from restoring and helping the ecosystem. Action needs to be taken to assure that for years to come, humans are able to use and benefit from the natural resources of South America without compromising the environment, animals, and land. There are countries that have started to make changes to better the environment however, more countries need to step up and make a positive change. The lives of many people are directly impacted by the health of the land in South America so the world needs to make sure that the health of South America is a top priority.

Secondly, humans benefit greatly from the South American ecosystem, however, the animals benefit just as well. There is an extreme amount of biodiversity in South America. There are some animals that cannot be found anywhere else in the world. Examples are given in an article by Britannica. It shows very vividly just how diverse the bird population is in South America:

**Birds** are represented by 89 families and some 3,000 species—a much higher figure than in Africa or Asia, which justifies the application of the name bird continent to South America. Some 25 families are endemic to the Neotropical region. Unique birds include rheas (large, tall, flightless birds that resemble ostriches), curassows (large arboreal birds distantly related to the domestic fowl), hoatzins (a brownish crested bird, having claws on the digits of the wing

when young), oilbirds, motmots (bright-coloured birds related to kingfishers), jacamars (small, bright-coloured birds), toucans, manakins, and cotingas (related to manakins), and many passerine (perching) birds. Hummingbirds have evolved to fill a variety of habitat niches, with more than 120 species in Ecuador alone. Parrots, pigeons, cuckoos, tyrants (a kind of flycatcher), woodhewers, and orioles are among the dominant groups. Remarkably, the proportion of nonpasserine to passerine birds is greater in South America than in any other part of the world. Several species of penguins are native to southern South America, the coastal regions of Peru and Chile, and the [Galapagos Islands](#) (“South America: Animal Life”).

If the bird population is this expansive, then one can only wonder just how biodiverse the mammal, amphibian, fish, and insect populations are. Because these populations are so expensive they have to have interspecific relationships. Having so many species all together on the same continent will cause species to interact over time. This means that some species rely on one another to survive. Humans are quick to use up the land in South America without thinking about how it will affect the animal populations.

This biodiversity is critical in maintaining a healthy ecosystem. Many of the animals in South America rely on one another to live. This is called having interdependence. All the animals are connected to one another and influence each other in one way or another. Interdependence is a key trait of a rainforest ecosystem. In the forest there are different forms of interdependent relationships. From pollination, to seed dispersal, predator and prey relationships, and even symbiotic relationships. Losing any animal that is remotely connected to a biological chain can

be devastating to the ecosystem as a whole. These relationships have been in function for thousands of years and losing even one keystone species can impact various species. Plants and animals.

Protecting the environment can help make sure that all the animals are able to survive in the forests. Not just for human gain, as mentioned before, but also to make sure that the other animals can live as well. Everything is tied together in nature and losing one species can cause a downfall of an entire ecosystem. For example, the growth and production of Brazil nuts. As mentioned prior, Brazil nuts are a huge export in South America and a valuable resource to the rest of the world. MongaBay gives descriptive examples of these interspecies relationships and how they affect the circle of life:

Brazil nut trees (*Bertholletia excelsa*) are dependent on several animal species for their survival. These large canopy trees found in the Amazon rainforest rely on the agouti, a ground-dwelling rodent, for a key part of their life cycle. The agouti is the only animal with teeth strong enough to open their grapefruit-sized seed pods. While the agouti eats some of the Brazil nut's seeds, it also scatters the seeds across the forest by burying caches far away from the parent tree. These seeds then germinate and form the next generation of trees. For pollination, Brazil nut trees are dependent on Euglossine orchid bees. Without these large-bodied bees, Brazil nut reproduction is not possible. For this reason, there has been little success growing Brazil nut trees in plantations—they only appear to grow in primary rainforest (“Symbiotic Relationships in the Rainforest”).

MongaBay gives very detailed information, but also points out an important piece of information. The interspecies relationships are not only important to the animals but to the plants of the land as well. The animals eat the plants but they also help the plants reproduce which is crucial to maintain a balanced and healthy flora population.

Plants need to rely on the animals because the plants are rooted in the ground and cannot move to survive and to reproduce. Animals however, can move but they still need these interspecies relationships. MongaBay explains an example of how the animals are all related to each other and how they help balance out the ecosystem in South America:

Life in the rainforests is competitive and countless species have developed complex symbiotic relationships with other species in order to survive. A symbiotic relationship is a relationship where both participant species benefit mutually. Symbiotic relationships appear to be the rule and not the exception in the rainforest. For example, ants have symbiotic relationships with countless rainforest species including plants, fungi, and other insects. One symbiotic relationship exists between ants and caterpillars. Certain caterpillar species produce sweet chemicals from "dew patches" on their backs, upon which a certain ant species will feed. In return, the ants vigorously protect the caterpillar and have even been observed carrying the caterpillar to the nest at night for safety. This relationship appears to be species specific in that only one caterpillar species will cater to a particular ant species ("Symbiotic Relationships in the Rainforest").



There is so much humans can do to aid in the health of the South American ecosystem. Protecting just one animal can cause the restoration of a whole host of different species. Humans are well aware of the connection between them, animals, and plants. However, one thing that humans fail to realize is that the same connection is there between different species of animals and plants. Whether it is a predator or prey relationship for food, or a pollination relationship where animals move around the pollen for plants so they can reproduce, everything is in a balance. Humans however, come in and disrupt the balance. People want to take from the environment without replenishing or realizing just how harmful their actions are. So many species are endangered and harmed and a major part of the problem is human interference. There are countries and groups of people that are working to help restore some of the balance that has been replaced by destruction however, more work can be done. There are such a beautiful variety of species that rely on one another. The world can lose thousands of species to extinction if countries do not work to help the environment. Little species like bees and bugs can cause areas to have an extreme decrease in plants, which will lead to an incredible decrease in animal populations. Moreover, a lack of animal variety can cause a decrease in food available to the people of South America and the world. If people continue to deforest the rainforests then the world will not only lose animals and plants but the Native people in the forests. The Native people are so knowledgeable about the land, the resources, and the overall biological wealth of South America. They know so much about the plants and how they can be used for medications and resources. Additionally, they have a rich culture and history that adds to the beauty of the people in South America. Everything has an interconnectedness

and if just one species is harmed from the damages of human interference, so many other species will be affected, and might even die.

To conclude, the relationship between South America and the world is much greater than many are aware of. The culture, plants, animals, and people all directly affect everyone else in the world. There are so many vast resources that are obtained from the ecosystem in South America. People all over the world get their food, clothes, trading goods, and supplies from the exports of South America. However, even in the face of all the benefits that are given from South America there is still a large ignorance to the problems that humans are causing to the environment. It is important that people understand why governments and countries need to work together to protect and to help build up the ecosystem to health. Not only are resources on the line, but many animal species. Animals have interspecies relationships and to continue to wipe out and harm the land can cause the extinction of many animal species. That would cause another source of food to be depleted and will cause harm to animals all over the world. Protecting the land is important and it needs to be stressed that South America's climate is important to the sustainability of the region which also supports and connects to the world.

Works Cited

Avila, Héctor Fernando. "Animal Life." *Encyclopædia Britannica*, Encyclopædia Britannica, Inc.,  
[www.britannica.com/place/South-America/Animal-life](http://www.britannica.com/place/South-America/Animal-life).

National Geographic Society. *South America: Resources*, National Geographic Society, 9  
Oct.  
2012, [www.nationalgeographic.org/encyclopedia/south-america-resources/](http://www.nationalgeographic.org/encyclopedia/south-america-resources/).

"Symbiotic Relationships in the Rainforest." *Mongabay.com*, Mongabay, 22 Mar. 2020,  
[rainforests.mongabay.com/0203.htm](http://rainforests.mongabay.com/0203.htm).