

Madagascar Environment/Agriculture Stories

A Note to the Teacher:

Areas of text that provide specific information about the Madagascar's environment pertaining to water and its relationship with Madagascar's environment and agriculture have been highlighted. Areas of text that provide insight and information into how natural resources might be both used and preserved are also highlighted.

The Environment and Agriculture

Most of Madagascar's forests have been destroyed. Many have been destroyed by fires started by cattle herders to promote new growth—a healthy diet for cows. Once the land is cleared and the trees are all burned, the supporting root systems die and the nutrient rich surface soils are washed away with the rain. Huge erosion scars called lavakas are formed as hillsides wash away. They can be found all throughout Madagascar. The red soils of Madagascar suffocate the rivers and cause the rice paddies to become silted and rendered useless. Astronauts call Madagascar “The Bleeding Country” because from space it's possible to see red rivers carrying the soil out to sea. Madagascar looks as though it's bleeding to death.

The Lake Ravelobe (four kilometers from Andranofasika) is being over fished. People are fishing illegally at night with nets causing the fish population to drastically decrease. This steals the food supply from the crocodiles, leaving them hungry and searching for food. Last week a 10 year old boy bathing in the lake was attacked and eaten by a crocodile. His friends were there to see it happen. It's a very sad situation, but the Malagasy people living around the lake need to recognize the reason why it happened in order to prevent it from happening again. Fishing with nets is fady (taboo) here, but people do it at night so they can make money.

by Robin Larson Paulin
Andranofasika, Madagascar

Southeastern Madagascar tends to have two seasons of rain. The scheduled rainy season is in the beginning of the year, around January through March. All rice terraces are used during this time. The rest of the year is a moderate season of rain, allowing only the bottom terraces to be utilized. Although there is rain throughout the year, an irrigation system is being repaired to improve rice harvest. CAF, a World Wildlife Fund project that is working with the villagers to manage the forest is in the process of reconstructing a canal that was originally built in 1960. The canal begins in the lower forest boundaries and is divided into four sections, providing the main four families of my village with a regular water supply. One belief of this project is if more rice is produced, the village income level will increase and less rainforest will be destroyed for cash crops such as bananas and coffee. They also plant cassava to supplement their food supply enabling the family to sell rice in order to buy cows. Cows are culturally significant. Even manure from cows is considered clean, so when the cows excrete in the streams, it is not considered polluting the stream.

by Julie Bednarski, Tamboro
Ft. Dauphon, Madagascar

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In Namoly farmers build terraces and make extensive use of irrigation. But, only the rice fields receive irrigation. Crops are not planted throughout the entire year. During June through August nothing is grown due to the presence of cold weather and frost which kills anything that is attempted to be grown. The cold, not the water is the limiting factor in Namoly. Farmers start to plant the rice and their upland crops once the cold season has finished. In Namoly, contrary to what would be expected on a tropical island, the most important fact is the cold. This surprises me every time I bundle up to go to sleep at night.

by Mark Danenhauer
Namoly, Madagascar

Deforestation is a major problem in my region and has led to major disruption of the watershed. Many streams have dried up, and the remaining streams run red with soil from severely eroded hills. Siltation of rice fields is a problem in many areas, and Lake Alaotra shrinks more every year from the situation. Fortunately for my village and others like it very near the park, the water here is fairly clear. But cutting, grazing, and bush fires that burn from September to November threaten the forest. The fires, set to encourage new grass growth for the cattle, gradually eat away the forest edge and prevent regeneration.

The only new technology to hit my area in recent years in the creation of the village pumps, which have greatly improved drinking water quality.

by George Ritchotte
Andranomala Nord, Madagascar

My town sits at the mouth of a river, flowing into the Mozambique Channel. The layout of the town is now drastically different as compared to several years before.

It isn't just poor water usage and neglect on the town's part that have forced these changes, but larger, more holistic forces.

Decades of slash and burn agriculture in the country's interior have damaged the lands natural ability to soak up water. The rain now washes right down the hillsides into the river valleys, taking vegetation and sediment with it. Those river valleys quickly fill up and start rushing towards their only outlet, the sea. Every year the rivers rise more rapidly and carry away more soil, seriously altering the landscape, not only inland but on the coast as well.

A few years back there was a small village, or section of town, to the west of my house, but it is no longer there. The whole village was force to—people, the houses, and everything else—because the river had started to take over their land. Now, during the dry season, a barren patch of land exists and awaits the next onslaught with the arrival of the rains.

by Rob Roberts
St. Augustin, Madagascar

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Dry land is not the only place for planting. The villagers have begun a seaweed farm, just offshore in the shallow blue water. The seaweed grows on line just below the water's surface and is anchored to the bottom by rocks. Once a week, a group takes to the sea in canoes to clean and harvest growing seaweed. It's a day of singing and salt covered skin. The seaweed is sold in town and provides steady income when rice supplies are low. Besides the source of income, the seaweed has other benefits for the area. Squid lay their eggs on the lines, growing fish take refuge in the tangled seaweed and the sea turtles can be seen in the protected waters.

by Jina Sagar
Ambalahenko, Madagascar

The water quality has improved greatly since the pump was built in 1995. Before that, the villagers of Andranomena gathered their water from a nearby stream, which was not as clean. However, large trucks back up to the pump right where people wash dishes and clothes and use gas-powered pumps that often leak to fill their tanks. They are certainly a new and different source of water pollution!

Children sometimes swim and play in the streams near the villages, and in Morondava, on the coast several kilometers to the west, in the ocean. Older local people generally do not, and I've heard stories of mermaids drowning young men in the sea.

Tourists, however, both foreign and Malagasy, enjoy the beach, swimming, and boating in Morondava.

by Clare Sandy
Andranomena, Madagascar