

Madagascar Environment/Agriculture Stories

Note to the Teacher:

Areas of text that provide specific information pertaining to water in Madagascar's environment and agriculture have been highlighted.

The Environment and Agriculture

Most of Madagascar's forests have been destroyed. Much woodland has been destroyed by fires started by cattle herders to promote new growth—a healthful 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 throughout Madagascar. The red soils of Madagascar suffocate the rivers and cause the rice paddies to become silted and 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.

Lake Ravelobe (four kilometers from Andranofasika) is being over-fished. People are fishing illegally at night with nets, causing the fish population to decrease drastically. This removes the food supply from the crocodiles, leaving them hungry and searching for food. Fishing with nets is *fady* (taboo) here, but people do it at night so they can make money and not get caught.

*by Robin Larson Paulin
Andranofasika, Madagascar*

Southeastern Madagascar tends to have two seasons of rain. The main 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 used. Although there is rain throughout the year, an irrigation system is being repaired to improve rice harvest. A World Wildlife Fund project called CAF, which 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 starts in the lower forest boundaries and is divided into four sections, providing the four main families of my village with a regular water supply. One hope of this project is that if more rice is produced, the village income level will increase and less rain forest will be destroyed for cash crops, such as bananas and coffee. The people also plant cassava to supplement their food supply, enabling the family to sell rice in order to buy cows.

*by Julie Bednarski, Tamboro
Ft. Dauphon, Madagascar*

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. From June through August nothing is grown, due to the presence of cold weather and frost, which kill crops. 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 is over. In Namoly, contrary to what would be expected on a tropical island, there is a cold-weather season. 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.

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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 is the installation of village pumps, which have greatly improved the quality of our drinking water.

*by George Ritchotte
Andranomala Nord, Madagascar*

My town sits at the mouth of a river that flows into the Mozambique Channel. The layout of the town is now drastically different from what it was several years ago.

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 natural ability of the land 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 toward 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 also on the coast.

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 forced to relocate—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 of water with the arrival of the rains.

*by Rob Roberts
St. Augustin, Madagascar*

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 lines just below the water surface and is anchored to the bottom by rocks. Once a week, a group takes to the sea in canoes to clean and harvest seaweed. It's a day of singing and salt-covered skin. The seaweed is sold in town and provides a steady income when rice supplies are low. Besides being a 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 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 and use gasoline-powered pumps that often leak right where people wash dishes and clothes. 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 in the ocean, several kilometers to the west. Older local people generally do not swim, 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*