

Fernando Emilio Quintero Medina
Alison Bixby Stone School
Zamorano, Honduras
Madagascar: Education, Infrastructure, Water, and Sanitation
Madagascar: Improving Education.

Madagascar is one of the poorest countries in Africa and the world. Its population is 26.26 million people. Madagascar is the fifth-largest island in the world, the biggest island of Africa, and the 47th largest country. This country is in the Indian Ocean in the Southeast of Africa, and it is separated from the rest of the African continent by the Mozambique Channel. Madagascar shares the maritime borders with Seychelles, Mozambique, Comoros, and France (Mayotte island). The territorial extension is 587,041 square kilometers. Its geography is divided into five regions: East Coast, Central Highlands, The Tsaratanana Massif, The West Coast, and the Southwest (Goway, 2021). The climate varies in location, but is tropical, along the coastal regions (Amanda Briney, 2021). Most of Madagascar's population lives in the rural areas of the country (62.14%). The rest of the population lives in the urban areas of the country (37.86%). The country has many problems in the education system that need to be solved immediately because education is a human right that all people deserve it and it must be provided in good condition.

Madagascar has a Republic Government. The government consists of three branches, executive power, judicial power, and legislative power. The president and the prime minister oversee the executive power. The Supreme Court oversees judicial power. The Senate and the National Assembly oversee the legislative power. In Madagascar, just about 5% of the land is cultivated (3.000.000 hectares) (Nations Encyclopedia, 2021). Less than 2 million hectares are used for permanent cultivation. The total land of this country is about 58.000.000 hectares. In this 5% of the land, they cultivate rice, cassava, banana, sweet potato, etc. The average farm size in Madagascar is 1.3 hectares (Borgen Project, 2020).

The average household in Madagascar is 4.6 people per family in rural areas. In urban places, the average household changes because it is 4.4 people per family. Houses are rectangular and crowned. They have steeply angled roofs (Maureen Ann Covell, Jean Dresch, Hubert Jules Deschamps, Raymond K. Kent Aidan William Southall, 2021). In rural places, houses are made from mud, wattle, and woven matting, which are supported by poles. In the eastern forest, houses are made from bamboo and thatch with palm. The house's conditions are not the best ones to accommodate this number of people per house. It is a worrying situation because people do not live in the required conditions for having a high quality of life. For example, when it rains, the houses get flooded, the people's belongings and people get wet. When there are strong winds, the handmade palm roofs blow away.

A typical family diet consists of one main dish of meat, poultry, or fish with vegetables, accompanied by a mix of herbs, leaves, or rice (Goway, 2021). The families get this food in their own country. They buy food from the money they receive from their work. For example, they buy corn, rice, fish, vegetables, meat, etc. They use wood-burning stoves to

cook. These stoves are traditional stoves in Madagascar. Biomass, such as charcoal and wood is the fuel to prepare their food. They make fire using charcoal and wood and then they introduce the wood to the wood-burning stoves. This is how they cook food in Madagascar.

Typical families have difficulties and barriers that make their lifestyles more difficult. Some examples are extreme poverty, sexual exploitation, schools are not free, child labor, and lack of food for everyone.

Agriculture is the most important job in Madagascar. The agriculture sector generates 70% of the export earnings and generates 80% of employment in all the population (four-fifths of the population 4/5). The rest of the important jobs in Madagascar are fishing, mining, and forestry.

85.8% of students have access to school. 14.2% have never gone to school. But education is not affordable, because schools only offer two or three years of teaching. Healthcare in Madagascar is not affordable, because only 60% to 70% of people in Madagascar have access to healthcare. The rest of the people must walk long distances (10 km) to go to a health center to receive medical attention. So, healthcare in Madagascar is not affordable nor is it accessible.

Only 42% of people have access to clean drinking water in Madagascar. Then only half of all the houses have access to clean water. Most countries do not have access to toilets. Madagascar is the fourth worst country for access to improved hygiene. 85% of people in Madagascar do not have access to electricity. Less than 40% of people have access to telephones. Families have access to roads, but only ten percent of these roads are paved or in good condition. Not all families have access to local markets.

Education is a very important factor in life because it is a process of facilitating learning, knowledge, habits, skills, and other important things. Education makes you a better person, and a better citizen by teaching youth to respect laws, rights, and regulations; helps us grow and develop a better society.

Madagascar has a similar educational system to the one the other countries have. School is compulsory for children of the ages of 6 to 14 years (Borgen Magazine, 2014). The educational system is divided into three parts. The first part is primary education. The first six years of school are of primary education. The second part is middle education. Middle education is made up of three years and after completing middle education, a certificate is awarded. (Study Country, 2021) Most poor people decide to end their education after finishing middle education. The third and last part is secondary education. Secondary education is also made up of three years. Secondary education is not compulsory. The students who decide to continue in secondary education, receive a baccalaureate that is equivalent to a high school diploma. This is important to enter the university.

Madagascar is a country with many problems in the education sector. One of the problems is the lack of water in schools. An official survey of hygiene was made in February of 2009

at Malagasy schools, and only 18 percent of the country's 111 school districts have access to drinking water, and only 30 percent have toilets meaning that the rest of the students need to defecate in nature (Fanja Saholiarisoa Inter Press Service News Agency, 2009).

Illiteracy is harming the society in the country. Madagascar is placed 122 in the ranking of the literacy rate. Not all things are bad, because in recent years the country has increased in literacy rate. The male literacy rate in Madagascar is 74.80% and the female literacy rate is 77.30% (UNESCO, 2017). These numbers are very low for having a developed country in literacy. The effect of illiteracy is that people have limited opportunities for employment.

Schools with poor infrastructure are affecting the quality of the country's education. Some schools do not have roofs, doors, windows, or walls in good condition. Some other schools are very small. This problem affects teachers and students. For example, if one school does not have roofs in good condition, and the rainy season starts then students will lose some days of school.

All these problems in Malagasy's education sector affect all people from the country. It affects women, men, adults, children, people from urban and rural places; it affects people in all socioeconomic statuses. Education is a basic element for life and if a child does not receive a quality education then the child will not be prepared 100% for life.

The World Bank Group and the Global Partnership for Education made a project in Madagascar. This project was a solution to educational problems. The World Bank Group and the Global Partnership for Education gave 100 million dollars to improve learning in basic education. This was for strengthening teacher training, improving student attendance, reduce the dropout rate and, to improve the public school's management. This project was through an equitable national school grant system. Also, this 100 million dollars helped to prepare children for going to school, to professionalize the capacities of school principals, and for constructing 800 furnished classrooms with running water and restrooms. This is a good example of an educational solution that was realized in an undeveloped country that made Madagascar a better country.

How can the Malagasy education sector be improved to be developed?

The country needs to work towards having a developed education sector, but this can be possible by working with effort. Madagascar is a third-world country, so it will be essential to have a good educational sector/system to further develop the country and provide more opportunities to the children growing up there

The following proposed project will be managed by the organization of The World Bank, The United Nations, and USAID. The project will be funded by The World Bank. This project will be sustainable because Madagascar citizens will receive higher educational quality and be able to have many more opportunities to work in different countries. Also, the conditions of the schools will be the best ones because the schools will have roofs, chairs, teachers, whiteboards, toilets, clean water, educational, sports, technological and scientific material.

The first step of the project will be to train teachers, parents, and students so that know the coordination, planning, and management of human resources in the educational system. This will help a lot because parents will know what to do in different school situations and manage them in a better way. Students will raise awareness of the importance of taking care of human resources in the educational system. They will learn that resources and more things need to be taken with calm, respect, responsibility, love, and partnership. There will be free literacy programs so that illiterate people may attend. The program will have free transportation, for all people and especially for the people who live distant from the places where the programs will take place.

The second step of the project will be to improve the school's water sanitation. By improving the school's water sanitation there will no longer be people sick because of a lack of water. It will reduce the chance that students will get sick from diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid fever, and polio. Students will no longer deal with stomach pains during class due to the lack of water. With water sanitation, the attendance rate will improve because students will be motivated and will attend school. This step includes constructing bathrooms at schools. Then they will stop defecating in nature and the diseases produced by defecating in nature will stop.

The next step is to equip educational centers with scientific, sports, technology materials, and resources. The scientific materials and resources will include laboratory equipment such as microscopes, thermometers, graduated cylinders, flasks, test tubes, etc. The sports materials will include soccer balls, cones, vests, baseball bats, baseballs, football, tennis ball, golf club, and more. Technology materials will include computers, tablets, WIFI, and more. This will be important because schools will be more advanced. With these materials and resources, the students will receive a quality education. The teachers will have enough materials to teach educational topics deeply so that students will have a better understanding of the topic. Students will be able to practice the values of cooperation and solidarity while they use the resources and materials.

The next step will be to build schools in remote locations, something similar to the Project Kakuma made by Maggie Shelters in Kenya. The Project Kakuma is a refugee camp that is home to 169 refugees that fled from hunger and war in different countries from Africa. In this camp, refugees receive free classes in science, math, and English. It has internet and laptops, and the project includes 420 teachers from 75 countries (Project Kakuma 2021). By building schools in remote locations, people will have a school in a more accessible place. Something difficult will be to take the materials to build schools to these remote locations, but it would not be impossible to do it. People will be more motivated to study because they will have an accessible school. The percentage of non-study and illiterate people will improve because some people do not attend school. After all, the closest school is too far from where they live. These schools will be implemented with sanitized water, and with scientific, sports, technology materials, and resources.

The growth of the project will not stop here. Once education succeeds, this project will continue with the idea of helping the education sector improve. Madagascar will be

improving its illiteracy rate; more people will be literate which means that the country will have a prepared society. The schools will no longer be a center of infection for diseases caused by a lack of water. People who did not study because they live so far from a school will have possibilities to fulfill the desire to study and to have a high quality of life.

It is amazing the positive changes we can make by just giving importance to the education sector. With these changes, Madagascar schools will pass from being third-world schools to awesome schools that children love to attend and parents are proud of in their community. The education system will improve, and the students will receive a quality education with more opportunities to rise out of poverty. The right to education will be respected and all people in Madagascar will receive it in an amazing condition. The school will be more fun, and healthier. Now parents will not be worried about their sons and daughters' futures, because they will know that they are going to be able to support themselves as adults. If we work to the maximum to improve education, we will be sure that the world will have no poverty and therefore no hunger.

Works Cited

- Briney, Amanda. "Geography of Madagascar." ThoughtCo, Feb. 16, 2021, [thoughtco.com/geography-learn-all-about-madagascar-1435198](https://www.thoughtco.com/geography-learn-all-about-madagascar-1435198).
- Country Profile Madagascar*, [www.intracen.org/exporters/organic-products/country-focus/Country-Profile-Madagascar/#:~:text=Agriculture%20is%20a%20mainstay%20of,about%2080%20%25%20of%20the%20population.&text=Leading%20export%20crops%20are%20vanilla,and%20cotton%20\(FAO%2C%2014.07](http://www.intracen.org/exporters/organic-products/country-focus/Country-Profile-Madagascar/#:~:text=Agriculture%20is%20a%20mainstay%20of,about%2080%20%25%20of%20the%20population.&text=Leading%20export%20crops%20are%20vanilla,and%20cotton%20(FAO%2C%2014.07).
- Faigle, Markus. "Improved Cook Stove Technology as an Environmental Measure to Preserve Biodiversity and Counteract Deforestation." *Zahana.org Cookstoves and Deforestation*, www.zahana.org/Site_With_Pix/Cookstove.html#:~:text=Most%20households%20in%20Madagascar%2C%20including,water%20all%20across%20the%20island.&text=Kerosene%20stoves%20are%20also%20not%20in%20use%20in%20Madagascar.
- Government of Madagascar*, www.wildmadagascar.org/overview/cia-Government.html.
- Institute, Rural Development. "The Role of Education in Rural Communities." *Medium*, Medium, 15 Feb. 2019, medium.com/@rdi_77976/the-role-of-education-in-rural-communities-b478ed01b9d6#:~:text=An%20education%20system%20in%20rural,prevent%20the%20misinterpretation%20of%20information.
- Lonely Planet. "355357: Madagascar/In Location/Eating." *Lonely Planet*, 9 Aug. 2019, www.lonelyplanet.com/madagascar/narratives/in-location/eating.
- Madagascar - Rural Population*. [tradingeconomics.com/madagascar/rural-population-percent-of-total-population-wb-data.html#:~:text=Rural%20population%20\(%25%20of%20total,compiled%20from%20officially%20recognized%20sources.](http://tradingeconomics.com/madagascar/rural-population-percent-of-total-population-wb-data.html#:~:text=Rural%20population%20(%25%20of%20total,compiled%20from%20officially%20recognized%20sources.)
- Oecd. "What Makes Urban Schools Different?" *OECD Instance*, OECD, 1 May 2013, www.oecd-ilibrary.org/education/what-makes-urban-schools-different_5k46l8w342jc-en.
- Whitehouse, David. "Solar Energy Is Madagascar's Key to Boosting Electricity in Rural Areas." *The Africa Report.com*, The Africa Report, 21 Aug. 2020, www.theafricareport.com/37710/solar-energy-is-madascars-key-to-boosting-electricity-in-rural-areas/#:~:text=Madagascar%20offers%20the%20prospect%20of,be%20a%20viable%20way%20forward.

Bibliography

- "Discover Our Schools." *Project Kakuma*. Web. 12 Aug. 2021.
- "Madagascar." *UNESCO UIS*. 12 Apr. 2017. Web. 12 Aug. 2021.
- "Alimentación Familiar, Alimentación a Grupos y Alimentos De Venta Callejera."
Capítulo 40: Alimentación Familiar, Alimentación a Grupos y Alimentos De Venta Callejera, www.fao.org/3/w0073s/w0073s18.htm.
- "Average Salary in Madagascar 2021." *The Complete Guide*,
www.salaryexplorer.com/salary-survey.php?loc=128&loctype=1#:~:text=A%20person%20working%20in%20Madagascar%20typically%20earns%20around%201%2C310%2C000%20MGA,%2C%20transport%2C%20and%20other%20benefits.
- "Children of Madagascar." *Humanium*, 4 Apr. 2019, www.humanium.org/en/madagascar/.
- "Education in Madagascar." *BORGEN*, 11 Feb. 2016,
www.borgenmagazine.com/education-madagascar/.
- "Education Increases Awareness and Concern for the Environment." *World Education Blog*, 13 Dec. 2017, gemreportunesco.wordpress.com/2015/12/08/education-increases-awareness-and-concern-for-the-environment/#:~:text=Education%20encourages%20people%20to%20use,in%20areas%20of%20resource%20scarcity.
- "Education System in Madagascar." *Madagascar Education System*,
www.scholaro.com/pro/Countries/Madagascar/Education-System.
- "El Sistema Educativo En Madagascar." *SpainExchange Country Guide*,
www.studycountry.com/es/guia-paises/MG-education.htm.
- "Formulan Ambicioso Plan Para Mejorar La Educación En Honduras." *Diario El Herald*,
www.elheraldo.hn/pais/1247115-466/formulan-ambicioso-plan-para-mejorar-la-educacion.
- "Girls' Education." *World Bank*,
www.worldbank.org/en/topic/girlseducation#:~:text=Better%20educated%20women%20tend%20to,market%20and%20earn%20higher%20incomes.
- "Improving Education Quality in Madagascar." *AFD*, www.afd.fr/en/carte-des-projets/improving-education-quality-madagascar.

- “Life Is Too Expensive for Families Living in Extreme Poverty in Madagascar - Madagascar.” *ReliefWeb*, reliefweb.int/report/madagascar/life-too-expensive-families-living-extreme-poverty-madagascar.
- “Local Government.” *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., www.britannica.com/place/Madagascar/Local-government#:~:text=Houses%20are%20typically%20rectangular%20and,and%20are%20thatched%20with%20palm.
- “Madagascar - Agricultural Land (% Of Land Area).” *Madagascar - Agricultural Land (% Of Land Area) - 1961-2016 Data | 2021 Forecast*, [tradingeconomics.com/madagascar/agricultural-land-percent-of-land-area-wb-data.html#:~:text=Agricultural%20land%20\(%25%20of%20land%20area\)%20in%20Madagascar%20was%20reported,compiled%20from%20officially%20recognized%20sources](http://tradingeconomics.com/madagascar/agricultural-land-percent-of-land-area-wb-data.html#:~:text=Agricultural%20land%20(%25%20of%20land%20area)%20in%20Madagascar%20was%20reported,compiled%20from%20officially%20recognized%20sources).
- “Madagascar - Agriculture.” *Encyclopedia of the Nations*, www.nationsencyclopedia.com/Africa/Madagascar-AGRICULTURE.html.
- “Madagascar - Geography and Maps.” *Madagascar | Geography and Maps | Goway Travel*, www.goway.com/travel-information/africa-middle-east/madagascar/geography-and-maps/#:~:text=The%20geography%20of%20Madagascar%20can,bluffs%20and%20the%20central%20highlands.
- “Madagascar - Geography and Maps.” *Madagascar | Geography and Maps | Goway Travel*, www.goway.com/travel-information/africa-middle-east/madagascar/geography-and-maps/#:~:text=It%20is%20located%20in%20the,West%20Coast%20and%20the%20Southwest.
- “Madagascar Education Stats.” *NationMaster.com*, NationMaster, www.nationmaster.com/country-info/profiles/Madagascar/Education.
- “Madagascar Food and Drink.” *Goway*, www.goway.com/travel-information/africa-middle-east/madagascar/food-and-drink/#:~:text=A%20traditional%20meal%20in%20Madagascar,simple%20manner%20without%20much%20spice.
- “Madagascar Mobile Phone Subscribers, per 100 People - Data, Chart.” *TheGlobalEconomy.com*, www.theglobaleconomy.com/Madagascar/Mobile_phone_subscribers_per_100_people/.

- “Madagascar Receives \$100 Million to Improve Learning in Basic Education.” *World Bank*, www.worldbank.org/en/news/press-release/2018/03/29/madagascar-receives-100-million-to-improve-learning-in-basic-education.
- “Madagascar.” *Seafood TIP*, 28 June 2018, seafood-tip.com/sourcing-intelligence/countries/madagascar/.
- “MADAGASCAR: Education Hampered by Lack of Clean Water.” *Inter Press Service*, 13 May 2009, [www.ipsnews.net/2009/05/madagascar-education-hampered-by-lack-of-clean-water/#:~:text=ANTANANARIVO%2C%20May%2013%202009%20\(IPS,t%20perform%20well%20at%20school](http://www.ipsnews.net/2009/05/madagascar-education-hampered-by-lack-of-clean-water/#:~:text=ANTANANARIVO%2C%20May%2013%202009%20(IPS,t%20perform%20well%20at%20school).
- “Madagascar: Global Partnership for Education.” *Education in Madagascar | Global Partnership for Education*, www.globalpartnership.org/where-we-work/madagascar.
- “Madagascar: Government.” >> *GlobalEDGE: Your Source for Global Business Knowledge*, globaledge.msu.edu/countries/madagascar/government.
- “New Agriculturist.” *New Agriculturist: Country Profile - Madagascar*, www.new-ag.info/en/country/profile.php?a=2888#:~:text=The%20average%20farm%20size%20is,most%20farmers%20practising%20subsistence%20agriculture.
- “Niños De Madagascar.” *Humanium*, 5 Apr. 2019, www.humanium.org/es/madagascar/#:~:text=EI%2014%2C%25%20de%20los,educaci%C3%B3n%20menos%20frecuente%20en%20Madagascar.
- “On World Toilet Day, What's the State of Sanitation in Madagascar?” *UNICEF USA*, 19 Nov. 2016, www.unicefusa.org/stories/world-toilet-day-whats-state-sanitation-madagascar/30778.
- “Primary Health Care: Back to Basics in Madagascar.” *World Health Organization*, World Health Organization, 4 Mar. 2011, www.who.int/bulletin/volumes/86/6/08-010608/en/#:~:text=Only%2060%E2%80%939370%25%20of%20Madagascar's,remote%20and%20sparsely%20populated%20areas.
- “Road Upgrades Key to Infrastructure in Madagascar.” *BORGEN*, 24 Jan. 2018, www.borgenmagazine.com/infrastructure-in-madagascar/#:~:text=Only%20about%2010%20percent%20of,that%20can%20leave%20roads%20impassable.
- “Water Scarcity.” *WWF*, World Wildlife Fund, www.worldwildlife.org/threats/water-scarcity#:~:text=Billions%20of%20People%20Lack%20Water&text=When%20waters%20run%20dry%2C%20people,and%20other%20water%2Dborne%20illnesses.

“Water: Madagascar.” *U.S. Agency for International Development*, 6 Nov. 2015, www.usaid.gov/madagascar/water#:~:text=More%20than%2058%20percent%20Madagascar's,households%20live%20without%20sanitation%20facilities.&text=Triggering%20Health%20Seeking%20Behavior%20Change,community%20and%20the%20household%20levels.

“What Type of Jobs Are Available in Madagascar?” *Reference*, IAC Publishing, www.reference.com/business-finance/type-jobs-available-madagascar-f94fdd1f50869345#:~:text=Madagascar's%20major%20industries%20are%20agriculture,includ%20vanilla%2C%20coffee%20and%20rice.

“What Type of Jobs Are Available in Madagascar?” *Reference*, IAC Publishing, www.reference.com/business-finance/type-jobs-available-madagascar-f94fdd1f50869345#:~:text=Madagascar's%20major%20industries%20are%20agriculture,includ%20vanilla%2C%20coffee%20and%20rice.

“*WORLD DEVELOPMENT INDICATORS.*” *WDI - Home*, datatopics.worldbank.org/world-development-indicators.