

Global Veterinarian

Daniel K. Miller of Oberlin's Class of '68 favors us occasionally with his adventures in veterinary and agricultural work as he travels the world in his retirement. He writes from Santiago, Nuevo Leon, Mexico:

"After two years of Peace Corps (Brazil and Peru), I was a clinician in a dairy practice in north central Wisconsin for four years. Then I studied at Texas A&M for an MS and PhD while doing research in cattle diseases in Mali and teaching livestock health and management in Botswana. After that I taught at a veterinary school in Mexico and began doing short term volunteer projects overseas in a program called Farmers to Farmers. It's a great way to travel and expand your horizons. I recommend it for everyone."



In October of 2022 Dan described **Timor-Leste**.



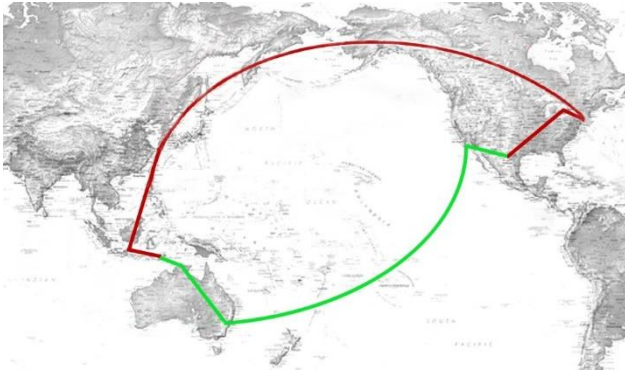
Greetings, everyone!

Timor Leste, otherwise known as East Timor, is a new country that occupies the eastern half of the island of Timor. The western half of the island is Indonesia with the exception of a small chunk that belongs to Timor Leste.

It has an interesting history. Originally it was a Portuguese colony, mainly as a source of trade in sandalwood since the 1600's. It continued as a Portuguese concession until the Portuguese revolution and the declaration of independence in 1975. Nine days after it got its independence, it was invaded by the Indonesian army under Suharto — a US client at the time, so we didn't interfere and pretty much blocked news of the conflict. There was a bloody guerrilla war that lasted until Indonesia finally came under international pressure and sort of withdrew. There was a period after the Timorese regained their independence from Indonesia when a UN peacekeeping force and an Australian military force were necessary to control political violence between those who wanted independence and those who wanted to remain part of Indonesia.

Because of their history, people still speak Portuguese, but many people now are learning English. The grandfather of my counterpart can speak Japanese thanks to the occupation during WWII. The local language is Tetum and is the common language that almost everyone speaks and, along with Portuguese, is an official language. The US dollar is the currency although they make their own coins with one rupee equal to a penny. The main source of foreign exchange is an offshore oil well to the north, but they also grow coffee and have a decent tourist industry centered on the beaches. I haven't heard or read about any big Club Med type operations, but I have seen some nice small places. Notice the outrigger canoes.





The biggest problem for tourists is getting here. From Mexico I had to take five flights: Monterrey → Detroit → JFK → Seoul → Bali → Dili, the capital of Timor Leste.

A more expensive option would have been Monterrey → Los Angeles → Sydney → Darwin → Dili.



Another insignificant source of income is fishing which is mostly used for local consumption. The country is poor, one of the poorest I've worked in, but it lacks the grinding poverty I've seen elsewhere. The poverty is shared.



They do have paved two-lane roads that are in good condition going to most of the country, but after the road ends (at a town to which it was built to connect to the rest of the country), it becomes a dirt road. And the village where I worked first was connected to that dirt road by a path that in part went through a creek bed. During the wet season, a vehicle would not have been able to reach the village.

The town where I worked from, Maliana, the third largest town in TL, population around 14,000, is no different from towns elsewhere around the world – paved streets, stop lights, concrete block buildings and houses, a market with numerous stalls selling vegetables, dried fish, salt, sugar, beauty aids, soap and detergent, utensils and tools of all kinds, and everything else associated with normal life plus a supermarket about five times the size of a 7-Eleven. Manufactured items and processed food are mostly imported from Indonesia, although China exports some things while Japan and Korea export Hondas and Yamahas to Timor Leste.



The rural houses are mostly made of cement block, but quite a few of them have wooden or bamboo walls. Some of them have roofs thatched with palm leaves, but others have corrugated galvanized sheets for roofs, and some of the block houses have tile roofs. But no matter the type of house, they mostly had big satellite dishes in the yard for TV sets. Electricity goes to almost every village. Of course everyone has a smart phone and many people wander around hypnotized by whatever is on their phone. Sound familiar?



In the yard there are chickens, occasionally goats, pigs (I once saw a woman washing her pig in the stream by the house) and cattle. They have gardens with vegetables, and flowers are ubiquitous. The animals run loose looking for their own food although the diet may be augmented by the owner, especially for the pigs.

The water buffalo (right) and cattle graze the rice paddies during the dry season when nothing grows except some irrigation. There are numerous rivers running down from the central mountains, but during the dry season, May to November, they go dry with maybe a small amount of water that can be used to irrigate along the banks of the river.



Their cattle are interesting, being descended from a wild cow, the banteng, that still exists in a state of threat of extinction in parts of Indonesia. They are not the same species as our cattle (*Bos taurus* and *Bos indicus*), but are *Bos javanicus*. They are smaller than our cattle and don't carry the same body musculature, with cows weighing in at probably 600-800 pounds. The females are fawn colored like a Jersey and have swept-back small horns, while the males have more upright horns and are much darker in color. The cattle are exclusively for meat and work, not milk.



The goats, on the other hand, look exactly like the Spanish goats that run around all over Texas, and they also run loose everywhere here.

Dogs are not regarded as family, but they aren't particularly abused either. They aren't trusting of people, but they do attach themselves to a particular house.

Normally it would be the end of the dry season now. The rice paddies are dusty dry and most of the rivers coming down from the mountains are dry, but thanks to climate change, things have been getting different for the last few years. In the first week here, there have been six afternoon thunderstorms, a couple of them gully washers, something that never used to happen, although the La Niña may have something to do with that. Fortunately or not, they don't drop enough water to grow anything so the cattle and goats wandering in the empty pastures and rice paddies can't find any green grass, but it is starting to come.

My project is supposed to teach people how to fatten their cattle for sale. There is a good market with live weight prices comparable to the US, but there are a lot of obstacles.

First, there is no tradition of caring for animals which normally are allowed to look after themselves.

Then there is no source of concentrate as energy for fattening. Rice is the main grain but is for human consumption. I have seen a few corn fields but not many. The only food industry that would have suitable byproducts for feeding cattle is the beer industry (did I mention that the country is more Catholic than Mexico?), and since that is concentrated near Dili, it would be too costly to get brewers' grains to the rest of the country. They do have rice bran available for protein, and calcium sources (lime and cement) from the building industry to balance the phosphorus in the bran.

Here are various sweet potatoes and a multitude of beans. Sweet potatoes are commonly raised, and the vines are quite nutritious and can be fed during the growing season. Cassava is grown, and the leaves have a high protein content, and the tubers have a high starch content once the cyanide is removed by drying in the sun.



Other sources of fodder are the bean and peanut plants after harvest if they are either properly dried or made into silage, neither of which is done now, although they do feed them to the animals when they graze the aftermath fields. Some sources of legume tree forage, *Leucaena*, are available, but not enough. Last year I did a project in Mali where they ensiled peanut plants after they pulled them up to get the peanuts. It was successful, and I saw a video of them opening the sacks of silage two months later and the sheep going after the silage like it was candy. So far the peanut harvest in TL coincides with the dry season, so making silage rather than hay is not necessary.

Surprisingly there is no sugar industry here, although people will grow a dozen sugar canes for home consumption. It would be a good source of molasses which can be used to augment the energy intake of cattle. The fishing industry could also supply fishmeal from the fishing bycatch dried and powdered.

Fattening might possibly work near the end of the harvest season. There would still be grass and since they raise lots of beans and peanuts, there would be lots of high protein forage available if stored and used correctly. The problem with growing introduced grass such as Napier in fenced pastures is that the available land is being used to grow rice. Native grasses grow where crops are not grown. Probably some accommodation could be made by growing grass along the borders of the paddies and planting annual grasses and legumes in the paddies right after harvest when there is still some ground moisture.

I have emphasized to the participants that before they invest in buying a cow to fatten, they need to have a source of feed. They also need a place to keep it. Fattening goats might be a good way to start to learn the process without running as much risk, but the market for goats is not anywhere near as lucrative as for cattle because of cultural norms.

I like the country. There is potential here and it is worth the effort to visit. They're looking for teachers and administrative advisors, so visiting here would be a good way to spend retirement.



The man who is always waving the flag usually waives what it stands for. —Laurence J. Peter

“In a monumental irony, both Julian Assange...and Edward Snowden...stand charged with the very same crimes that are likely to be brought against Mr. Trump. On both Mr. Assange and Mr. Snowden, Mr. Trump argued that they should be executed.”

The courage and character of Ukraine stands in perverse contrast to America’s cowering Republican Party, whose resistance might as well have been led by the Uvalde police. — Mark Leibovich

Throughout history, it has been the inaction of those who could have acted, the indifference of those who should have known better, the silence of the voice of justice when it mattered most, that has made it possible for evil to triumph. —Haile Selassie