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Question: Is environmental leapfrogging a realistic strategy for electrifying the Dominican Republic countryside?

The Dominican Republic (DR) was the first country in the New World discovered by Christopher Columbus. It is the home of the first school, first church and first city in the New World. Yet today, average income is less than \$1500US, less than 20% of Dominican children are enrolled in schools of higher education (in fact average level of schooling is 5.5 years per person), a potable drinking water supply exists only in a Dominican's imagination, and the majority of the country does not have access to a reliable electricity supply. What has happened since 1492? The DR has not maintained its early lead in the race for development and as a result, its people are suffering from poverty and massive environmental destruction. However, it is struggling to develop quickly and to compete in the current global market, and the nation is doing so successfully. In fact, during the last 4 years of the 1990s, the DR was the country with the fastest growing GDP in the world — an astonishing average of over 7%. Yet the environment has paid much of the price of this rapid development. Much of the land is over-farmed. Only 12% of the land is still forested and most of the waters of the nation's rivers are severely polluted. So how does a developing country continue to develop successfully without destroying its environment permanently all the while focusing on raising the education levels and lowering the poverty rate of the Dominican people? Can the DR develop without making the same environmental mistakes the rest of the New World made in its haste to join its European counterparts in the world of trade and economics?

There are many different approaches to developing a third world country. Some say that educating people is the first step. Others say that trade is the answer. Finally, many others argue that a nation cannot develop properly if it does not have a fit or trustworthy government. I agree with all of those theories, however, I also think that in order for a nation to develop these days, they must find a niche that other nations are lacking. This will give the nation a commodity to trade, the people a field to specialize in, and the government a project to cultivate respectfully. Furthermore the commodity should be one that will benefit a large number of people, not just the people that control the deep pockets of the nation and the government.

The DR has been trading with Europe and North America for centuries, however the Dominican government had been less than fair or even honest about how the money from this trade gets allocated. A major reason for this is the lack of laws or enforcement of the laws that do exist regarding labor and the environment. As a result, both the Dominican people and the environment have been repeatedly misused and abused by the wealthy and the Dominican government. However, there seems to be hope. In September of 2000, the Dominican government instituted its first-ever environmental law. The law set up a Secretariat that is to be responsible for enforcing the stipulations within the law. In

February of 2001, the Secretariat organized into one large organization made up of 5 government organizations that existed independent of each other before the law.

Now all that is left is to figure out a way to *empower* the people. A niche for trade needs to be found. This niche needs to be one that exists to benefit all Dominicans and the Dominican economy. Preferably, the niche should be one that has already been developed but not really picked up by any other nation in the world. As I stated earlier in this abstract, much of the DR cannot depend on a reliable source of electricity. Much of the electricity supply comes from fossil fuel imports from other nations. This paper will examine the DR's option of leapfrogging electricity generation technology from its current generation status to the more cleaner, more advanced technologies developed but not yet adopted on a large scale in the first world. The paper will give a brief history of the development history of the DR. It will also present the current status of the environment and the environmental efforts presently taking place within the country. Furthermore, the paper will grapple with the issues of large-scale vs. small-scale electricity generation, reveal wind and sunlight data/potential throughout the country (especially in areas most in need of a reliable electricity source), and examine how electrifying the country could affect not only the poverty stricken Dominicans, but the Dominican economy on a whole. Finally, the paper will make recommendations based on the current political structure of the nation regarding how best to approach the steps to leapfrogging.

The third world is at a great advantage. Because it has not yet been developed, it is in a position to start from scratch and take the correct steps for proper environmental and social development — an opportunity all of the developed nations lacked centuries ago. As a result, the intellectual property of such types of development will become a great, tradable commodity for other nations seeking to clean up the messes they made in the process of their own development. By leapfrogging straight to cleaner, renewable generation of electricity, the DR can focus its environmental efforts on present environmental clean-up issues and later, become skilled in encouraging and enforcing efforts to create and maintain potentially one of the cleanest environments in the world. Not only will this benefit the waterways, food supplies and living conditions of the Dominican people, it will also have an effect on the tourism of the nation. Overall, sustainably electrifying the Dominican Republic will be beneficial to both the DR and the rest of the developed and developing world.