

**Country for the project**

Grenada

Degree programme

Degree Progr. In Energy and Environment - CENMI

Studying Sargassum digestate as a fertiliser in Grenada

Before departure

I had not planned to apply for MFS, but got interested during the first term of year three when many of my classmates started their preparations. I thought it would be a good opportunity to get insights in another country and culture, and to gain important life experience. Knowing that this was the last year the MFS scholarship would be offered, I got even more eager to apply for it.

The reason for my choice of project and country had a little bit to do with that I thought of applying relatively late, and stumbled upon a continuation of a project from last year, that had considerably clear objectives already. I also had never heard of Grenada, the country where the project was located, and thought it would be exciting to experience a completely new part of the world. The project itself appealed to me as well, especially the aspect of circular economy.

I did not have very high expectations before the trip, and at times I even had second thoughts of going at all, because there were so many preparations to do and just as many uncertainties regarding different things. However, the preparations did not include any language courses, vaccinations nor visa applications for me, but it took a lot of work just to sort things out with accommodation, plane tickets and the project itself. At times, it was a little stressful having to deal with all this at the same time as I had my other courses, but it turned out to be worth it in the end.

Upon arrival

We arrived two days before meeting up with our supervisor and getting a tour of the hotel where we were going to work with the project, and then the studies continued more or less for the whole stay, which was eight weeks in our case. There was no organised reception upon arrival, but we met up with the supervisor and got invited to her birthday party the same weekend, so it was a nice opportunity to get to know some people on the island.

Financials

My experience was that Grenada in general was more expensive than Sweden when it came to food, which was something that disappointed us much the first morning when we went to the supermarket to buy some breakfast, still exhausted from the flight. A good way to save some money, however, is to look out for the locally produced food, because it tended to be much cheaper than imported goods. We also cooked a lot of food ourselves instead of eating out, which probably saved us a lot as well. Getting around by bus turned out to be very much cheaper than in Sweden, anyway, so maybe the costs were evened out in the end.

Accommodation

We found a place to live thanks to the project group who went to the same place last year and had the contacts to a Swedish woman who owned several hotels in Grenada. She managed to offer us a really good price for a four bedroom apartment at a hotel with a really good location and condition. The only negative thing about the accommodation was probably that there was a lot of renovation going on at the hotel in question and nearby, and a busy road right beneath our rooms, so it could be pretty loud at

night, making it somewhat hard to sleep in the beginning. Anyway, we got to move to another hotel in the end, which was very spacious and nice, and had a beautiful garden with direct access to the sea, and where it was not loud at all. I also spent a week living at the hospital suffering from Dengue fever, and that was very expensive and not very pleasant at all, so that is something that I would not recommend.

Project

The purpose of our project was to try and find a way to make value of the Sargassum algae piling up on the Grenadian beaches and harming people's health, tourism as well as marine life. Last year, a project group from KTH found that digestate from a biogas digester fed partly with Sargassum could successfully be used as a fertiliser for cultivation of short-term crops, and we were to further investigate that potential. Our main focuses were to I) analyse the heavy metal content of the digestate and II) perform a market analysis of the demand of fertiliser among local farmers.

A typical day during our studies started with us going to the hotel where the biogas plant was located and feeding it with one bucket of Sargassum and one bucket of algae. After that, we either went out for a ride with a car we rented to interview a farmer somewhere on the island, or sat down and worked on the report or transcribed already performed interviews. We also spent some time on contacting farmers and coordinating meetings, and to go and get algae on the other side of the island.

We did not have any presentation of our results when in Grenada, because they still are not analysed, but are planning to send out the finished report to our contact people and the participants of the study.



Country

The first thing we noticed was that the tempo was rather slower than in Sweden, when it came to service and getting things done. This was experienced both when working with our studies and in other everyday situations. Also, getting around by bus was very different from public transportation in Stockholm; there were no schedules and barely any bus stops, for example. This was a bit of a culture shock in the beginning, but we got used to it, and even grew to like some parts of the culture that were very different from home.

Another thing that was extremely different was the weather, and especially the heat. It was 30 degrees all day every day, and we noticed that it makes you really tired when you are outside in the sun for a whole day. I think I handled it very well, however, by wearing a lot of sun screen and drinking a lot of water.

Leisure and social activities

When we were not too tired to do anything in our spare time, we went to the beach or on hikes to see the nature around the island. A couple of times we met up with a group of Grenadian friends who approached us at the beach once. It was easy to make contact with people thanks to the official language being English and the fact that people were very friendly and inviting. Another thing we did in our spare time was to experience the food culture by going out to eat or cooking at home.

Sustainability

In some situations, it was hard to live sustainably in Grenada. The biggest challenge was recycling, because they simply do not have a system for that; all the garbage just ends up in the landfill. Travelling fossil free was also really hard, not to say impossible, since the buses ran on gas and we could not get an electric rental car. Regarding food, there is not an organic market at all in Grenada, so it was hard to be aware of the ecological impact of the goods in the supermarket. However, we managed to cook a lot of vegan food when doing it ourselves.

Our project was connected to the SDG number 14, Oceans and marine resources, since it had a lot to do with removing Sargassum from the coasts and replacing artificial fertiliser that would otherwise contribute to over fertilisation. It also had a lot to do with SDG 12, Sustainable production and consumption, since the fertiliser we were investigating was made from circular waste. Of course, it was also related to SDG 17, Partnerships for the goals, because we were performing the project in collaboration with a Swedish company, hence contributing to international partnership.

Other recommendations and observations

During our stay in Grenada, I got very sick with Dengue fever, and was lucky it did not get even worse. I would recommend to get a vaccination for Dengue if travelling to this area, if possible, or to be careful and wear long sleeves when in areas with a lot of mosquitoes.