

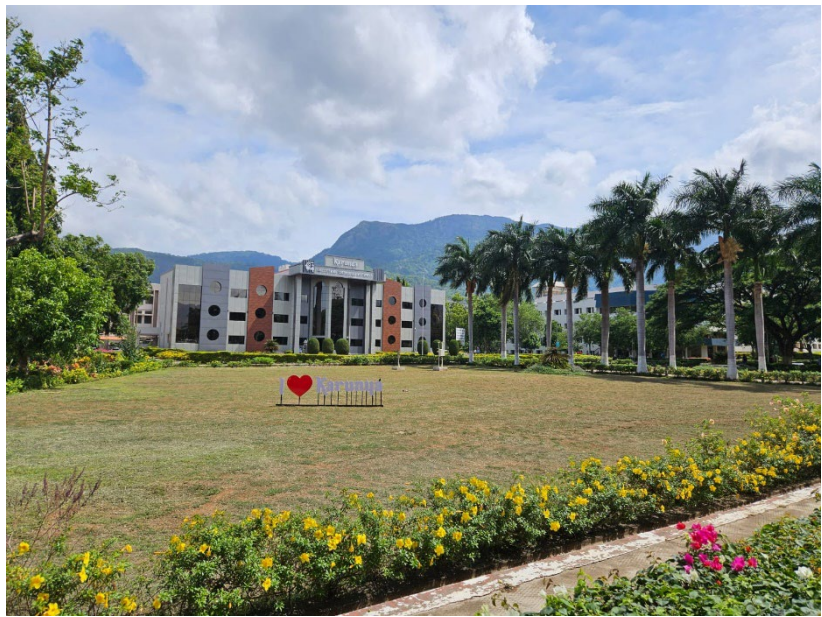
# Two months in India

Report of an IAESTE internship – july, august, september 2023

Daniel Kurzen, Environmental science, University of Lausanne

## Work

My intership took place in Karunya University, which is located in Karunya Nagar, a district an hour's drive away from Coimbatore, a large city located in Tamil Nadu in southern India. At this university I was assigned to the civil engineering department, although it is not really my field of study. I worked under the direction of Dr. J. Brema, who is a specialist in the study of India's protected wetlands areas. The project assigned to me involved the study of one such area protected by the Ramsar Convention, namely the Muthupet estuary located on the east coast in Tamil Nadu. The



*Figure 1: Campus of Karunya universtiy*

subject of the research was the mangroves found in this area, as they are plants that play a very important environmental role and provide innumerable ecosystem services, yet these plants are slowly disappearing from the Indian peninsula due to human intervention that destroys them to create aquafarm plantations and salt marshes. Accordingly, my project first involved identifying mangrove areas using sentinel 2A satellite imagery, and then I created maps using ArcGIS Pro software that would track the evolution of the Landuse in this area between 2020 and 2022.

Afterwards the work was supposed to proceed with me and two other phd students having to go to the study site to take samples of leaves roots and other plant measurements and with which I would be able to calculate the carbon and sequestration balance that each plant can make, quantifying in tons the total CO<sub>2</sub> sequestered from the whole area, however unfortunately we were not able to get the necessary permits in time to carry out scientific research because the area is very important and protected precisely by the rules of the Ramsar Convention. As a result, my work was limited to the creation of the Landuse maps, and two other maps also for the 2020-2022 biennium, one of NDVI and another of EVI. In this way I was still able to make an overall assessment of both the number of plants and their health status for the biennium taken in question.

## Culture

Regarding the culture and the host environment itself, I would have so many things to say but if I have to be synthetic, I can say that it was a fantastic experience and for me it almost felt like being on an alien planet, as I have never had any experiences of traveling to Asia in general and I feel that Indian culture is just the opposite in some aspects compared to European culture. Precisely this was one of the aspects that I enjoyed the most about the whole experience as every day was a new discovery as far as social behaviors where people possess a tranquility and calmness sometimes inconceivable in the face of the chaos of Indian life, the culinary specialties that are mainly based on rice and chicken and other foods where they put spicy and chili even on mangoes (in the end I got used to it very well and even now on my return home I continue to eat a lot of spicy). Unfortunately during the work week I was only solely in contact with



*Figure 4: Bust of Shiva at Isha Yoga Center*



*Figure 3: Sunset in Vagator, Goa*

sea and in big cities where I really had the impression of getting to know Indian society.

the students inside the university campus, which is relatively isolated from everything and so during the week besides work there was not much to do, however every weekend on Friday after work I would take my backpack and leave for two-day trips to other places in South India, where I had wonderful experiences in the mountains, at the



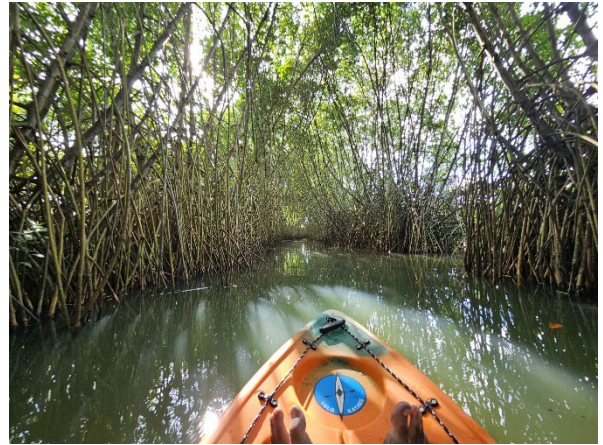
*Figure 2: Tea plantations in Valparai*

## IAESTE

I thank IAESTE Switzerland infinitely for allowing me to have this experience, and also for all the help offered and also answering my numerous questions by email. They were very helpful and willing to help me through the whole bureaucratic process to file the necessary documentation. I would also like to thank the hosting team of IAESTE Karunya who from day one went out of their way to integrate me and played crucial roles in cushioning the culture shock with the Indian world. They also gave me invaluable advice on places to visit and other tips during my weekend trips. The work experience was all in all good considering that the bulk of the internship could not be fulfilled, and it enriched my future career and will definitely come-back to me in my work curriculum.



*Figure 6: Chinese fish nets in Cochin*



*Figure 5: Kayak tour of mangroves plant in Varkala*