





Junior Scientists Tandems Final Report

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Title: Exploring the Potential Contributions of Aquatic Vegetables to the SDG's

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My six-month research stay at the **World Vegetable Center (WorldVeg)** in Taiwan as part of the ATSAF Junior Scientists Tandem program was not only a deeply formative academic experience, it was also a personally transformative one. My research project explored the potential of "aquatic vegetables" and took me down an intellectual journey that challenged me to rethink how we define food systems, value ecosystems, and imagine sustainable futures.

Coming into this project, I was struck by a paradox: aquatic vegetables which are nutrient-dense, climate-resilient, culturally rooted are everywhere and nowhere at once. From rural Bangladeshi floodplains to the wetlands of West Africa, these plants sustain lives and traditions. Yet they're almost completely absent from global food system strategies, Blue Economy frameworks, and SDG reporting. This invisibility became the driving question behind my research.

At WorldVeg, I found the ideal environment to explore that question. The center's commitment to underutilized crops and its interdisciplinary atmosphere allowed me to dive deep into the intersection of aquatic ecosystems, food policy, and sustainability. I worked under the guidance of Dr. Ee Von Goh, whose support was instrumental in sharpening both my research and connecting me with other scholars.

My daily research routine took place in the new modern Science building at WorldVeg, where I had my own dedicated desk among colleagues from the same research group. I also appreciated the open atmosphere and the mid day lunch break in the caferteria, where I got to know other researchs from the other groups. Being surrounded by fellow researchers each working on their own projects created a dynamic yet supportive environment. This set-up not only gave structure to my workdays but also helped me feel part of a larger community.

My research combined a scoping literature review using the PRISMA-ScR method with semi-structured interviews with researchers and policy makers working on aquatic food systems across Asia, Africa, and the Pacific. What emerged was a complex picture: while seaweed and high-value aquaculture are gaining attention under the banner of the Blue Economy, the quieter role of freshwater edible plants and lesser known marine species—like water spinach, lotus root, sea purslane, and taro—is still overlooked. In many ways, these vegetables are the "invisible infrastructure" of food security for marginalized communities, especially in climate-vulnerable regions.

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Beyond data collection, WorldVeg provided something equally valuable: *space*. Space to think, to write, to question disciplinary boundaries. I had the chance to attend internal seminars with vastly different backgrounds, soil scientists, plant breeders, and other students from international backgrounds. These interactions pushed me to approach aquatic vegetables not just as "crops," but as entry points into much bigger conversations: about food justice, agroecology, and who gets counted in global sustainability narratives.

The experience also brought its fair share of challenges, coordinating interviews across time zones, coming up with a thorough methodology for such a niche topic and trying to define "aquatic vegetables" in a world that barely acknowledges them was not easy. But it was through this messiness that the work became more meaningful. I began to see the research not just as an academic exercise, but as a small act of advocacy: to name what is often left unnamed, to surface submerged knowledge systems, and to imagine policy landscapes where these plants, and the people who depend on them, are not drowned out by a dominant food systems which prioritizes profit over people and the environment.

On a personal note, being in Taiwan expanded my worldview in unexpected ways. Through new connections, commuting through green rice paddies, and surf trips with to the east coast on the weekend, it all reinforced the everyday intimacy between people and landscapes that my thesis was trying to capture. It also reminded me that "research" doesn't just happen behind a desk. It lives in conversations, in curiosity, in paying attention.

I'm deeply grateful to ATSAF, BMZ, and both my academic supervisors for making this experience possible. It reaffirmed my commitment to research that is not only rigorous but acknowledges the multiplicity of knowledges that shape our food systems.



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