



# Marjorie

FILIPINA SHELL FISHER  
IN WARM WATERS

The first thing that struck her was the space: on the island of Zaragoza, everything seemed enormous, so much sky and light, so many trees. Marjorie had spent her first five years in a slum in Cebu City, the capital of Cebu Island, in the southern Philippines. There, she had lived in a dark room where the only window was a television. Her father had been born there, and her mother had arrived a few years before, leaving behind that island, where life seemed too narrow. But the city was no better: he worked whenever he could in a hollow blocks factory and she did whatever jobs came her way – in a furniture store, in a tiny popular eatery – but there was never enough money. The city was too expensive, because they had to pay for everything – water, food, electricity, rent. On the island, on the other hand, they could build a cabin, plant corn, cassava, bananas and, mostly, fish: the sea promised food.

In 1996, they moved. Months later, when her mother asked her if she wanted to go back to the city, Marjorie was frightened

by the mere question and said no, there was no way she wanted to go back. She liked her life on the island. She liked running around all day, playing with her cousins; she even liked it when they laughed at her because she couldn't swim like them: they had always played in these crystal clear blue waters. She liked it even more when, at low tide, they waited for her to teach her how to swim and laugh together.

The island of Zaragoza is separated from the coast of Southern Cebu by one kilometre of sea and coral. The island is a 170-hectare piece of stony land with wooden houses, sparse vegetation and amazing bougainvillea. The 300 families who live on the island have managed to domesticate it, planting gardens and raising pigs and chickens. But the Islanders' main occupation has always been fishing: sardine, danggit, tuna, mackerel, squid and so many others that the men would bring in every morning or afternoon, which the women would sell at the market in Badian, the town on the other side of the water.

On the island – where it is uncommon for a woman to have fewer than six or seven children – Marjorie's parents had more kids. Marjorie started elementary school and, like all the children, soon would go out fishing with her father. Her father and her grandfather would toss the net off of what the locals call bancas, narrow canoes with a rocker on each side. Then her father would dive in the water to scare the fish into the net. From the banca, Marjorie would help them pull in the net. For her it was more fun and play than work: fishing was for men.

But things were getting harder. There were more and more fishermen competing for the catch. And the older folks noticed that the water was warmer and, as a result, the seaweed that the fish used to eat was drying out. That meant that fewer fish were able to find food in the waters surrounding the island. Specialists say the rise in the temperature of ocean waters is one of the most striking effects of climate change. But even before they had heard of global warming, the fishermen from Zaragoza knew that

something was going on. It was even harder to make ends meet: many families could no longer afford to eat three times a day and some had to ask their children to help out.

*One day, when I was 13, my mother asked me if I could start fishing more seriously, as if it were a job.*

"I don't like what they call feminine work. I like the way soldiers are trained and I feel that I can do it as well."

*How did you feel then?*

*I was happy, because I had noticed the hard times we were going through, and I knew I could help to catch more fish. The problem was one year later, when my mother told me that things were worse and I had to leave school, so I could work more and save the costs of studying.*

Marjorie's school is public, and there are no fees for public schools in the Philippines: when she speaks of the costs of studying, she is referring to notebooks, pencils, and the occasional book that her cousins couldn't

lend her. For two years, Marjorie and her mother went out fishing in one banca every day while her father and younger brother went out in another. To get just as much as before, if not less, it was necessary to work harder.

*Who would get more fish, you and your mother or them?*

*They would, because they went to the deeper parts.*

*Why didn't you go to the deeper parts?*

*Because the net would be very heavy there, it's more appropriate for the men.*

After a time, Marjorie was able to catch enough alone so that her mother could stay home and take care of the other six children. During the day, she would go out to fish sea shells: in good times, the Islanders only fished them for their own consumption, but lately they had come to represent an important source of income. Marjorie fishes sea shells in the same way her ancestors did for centuries: the only difference is that she wears a tiny pair of goggles when she dives into the coastal waters to look for the animals hiding in the coral or buried in the

sand. She also has a string tied to her waist, whose other end is tied to the bow of her small banca. If she works constantly for five hours, diving in and out of the water time and again, she can, on a good day, earn 50 Philippine pesos, or about one dollar.

*Are you ever afraid in the water?*

*Sometimes I am. When the water is not clear I imagine that there may be a shark or an eel.*

*Are there sharks here?*

*Yes.*

*Do they kill people?*

*We've heard a lot of stories.*

All the time in the water could however not make Marjorie forget about school. Her cousins had already graduated and Marjorie thought that she would never be able to finish, that she had missed her one chance.

*I really wanted to go, because once I graduate I will be able to help my parents send my other siblings to school, says Marjorie, shedding a few tears that she tries to hide.*

Last year she and her mother had a serious conversation: Marjorie promised that, if her mother let her go back to school, she would not neglect her work; in fact, she would work a little more to pay for school supplies. Her mother agreed, and Marjorie has finished a whole year. Now she is about to begin her second to last year of school.

*I'm just so excited at the thought of finishing school. I was supposed to graduate two years ago, and now I'm afraid that I won't be able to make it.*

Marjorie works hard. During the season of small fish, she goes out at night in a larger boat; the only one that can carry the large nets needed to catch those fish. There, Marjorie is an employee who gets a share of the money – and who works, of course, at the same pace as the others. But in recent years it's gotten harder to catch these fish: they always used to come in the summer, when it was dry and hot, but now it rains in the summer too and the small fish flee to the open sea: another side effect of climate change, says Isyang, Marjorie's aunt and the captain of the boat. It is not the only one: before, the Islanders used to plant corn in the rainy season; now, since they never know when the



rainy season will be, they plant when it has rained two or three days in a row. But they never know: oftentimes, the rains stop and the plants die. They can no longer get salt from the sea, another of their resources; the salt is ruined if it gets wet during the drying process. Hence, the Islanders' income has been infringed upon from all directions.

So, in search of fish or sea shells, Marjorie often goes out alone in her banca. And every morning, at seven, she sails to the high school in Badian. If she has been fishing all night, all she has time to do is to stop by her house and pick up her stuff. Those days, she gets everything ready in advance, to save time. Other days she comes home earlier, at around one in the morn-

ing, and sleeps for a while. Marjorie tries to be organized to take full advantage of her time, but some things she cannot control: like that day, a few months ago, when her banca was capsized by winds that eventually brought in a typhoon. Marjorie was really scared but somehow managed to swim back to the coast; then she went home to change and rowed her way to school again. Marjorie really wants to graduate.

*If I don't, people will assume that I don't know anything and I won't be able to work in the city.*

*So you want to go the city? Your mother went there and came back.*

*Well, that's why I need to study. And I want to go because I want to work there. If here on the island there were fish like before, I would stay, because people lived well here. But now, with the climate change, it's impossible to make a living here.*

***What kind of work do you imagine yourself doing?***

*I want to be a soldier.*

Marjorie says that since she was a child she has liked the independence boys have, and that she wants to be able to make her dream come true.

*I don't like what they call feminine work. I like the way soldiers are trained and I feel that I can do it as well.*

***Soldiers are trained to kill people, and sometimes they do. If you were a soldier and had to kill somebody, what would you do?***

Marjorie laughs discretely and shyly. Marjorie is always trying not to bother anyone, not to call any attention to herself:

*Well, I'd be happy if I could shoot before the other person did.*

***You wouldn't feel any regret?***

*No, I wouldn't, because I know that if I didn't do it, my mates may be killed by that person.*

Marjorie says that, for now, she does not want a boyfriend. She can't see herself carrying around so many children like women on the island do. A small man and father of twelve, Rogelio, the president of the Zaragoza Cooperative, says that having so many children is the ancestors' commandment and it must be respected. If not, the ancestors will get angry, he says. Ysiang counters by saying that the ancestors know nothing about how hard life is now: those were ideas for other times, she says. Marjorie listens in from afar, and smiles. She prefers studying, swimming and fishing with the children from the island to going out with her classmates, "who spend all their time texting and dancing, and I'm not like that." Except when it comes to the cube: recently the Rubik's cube has been all the rage in the Philippines, and even the high school in Badian organized a contest. Marjorie liked the challenge, but she did not have 500

pesos – 10 dollars – to buy the cube, so she had to make do with a generic version that she could afford. That cube was so stiff it was hard to rotate; Marjorie tried everything to loosen it up including oil and shampoo but to no avail. So she started getting to school a little earlier to borrow an original cube from a rich girl in her class who had one. Then the day of the contest came.

*It was a memorable day for me: I won. No one expected me to win; I didn't expect to win. I won 5 pesos, and I was so happy! I saved the money to buy something I need or want.*

That evening Marjorie thought that maybe someday she would be able to finish school, maybe even go on to get a degree afterwards, and live her dream of becoming a soldier, or become a teacher like her mother wants her to, and go to the city. She says that she will miss the island, her family, the sea, the open space. And that if there were just still enough fish around, she would stay. But everyone says that things will not get better – in fact, they will only get worse, she says. And what can a small person like me do, she asks, in the face of something so big?

## FISHING AND AQUACULTURE: WORKING IN THE WATER

Climate change is already affecting and altering marine and freshwater food webs over the world. The long term impacts on fishing and aquaculture from climate change are still unpredictable, but we can expect to see changes in productivity within ecosystems. In warmer waters, the effects are likely to mean less fish, in colder waters more fish. The fishing industry itself is a small, but still significant, contributor to climate change; the average ratio of fuel to carbon dioxide (CO<sub>2</sub>) emissions for capture fisheries has been estimated at about 3 teragrams of CO<sub>2</sub> per million tonnes of fuel used.<sup>1</sup>

Poorer people are generally less capacitated to adapt to the projected declines in ecosystem productivity. For fishermen and fisherwomen in poorer regions, which are the regions that will see most of the negative changes in productivity, fewer fish will therefore mean more hardship. Based on the expected effects of climate change, fishing will need to be undertaken in more extreme weather, farther from land, and require more human resources. More working hours and more fuel will be needed in order to gather the necessary catch.

In areas where fisheries are a substantial part of the economy, climate change will affect a great number of people. In the Lower Mekong area for example, two thirds of the population, or 60 million people, are in some way working in fisheries, or in sectors related to fisheries. Their work and living by the Mekong will change as the Mekong is expected to change, due to altered patterns of precipitation,

snowmelt, and rising sea levels. While it is difficult to give exact estimates of what will happen, a sea level rise of 20 cm would, according to models, lead to dramatic changes in species in the Lower Mekong Delta.<sup>2</sup>

While changes in species might not necessarily lead to a decrease in the amount of catch available, a loss of biological diversity may have health implications for humans. Research suggests that tropical diseases posing a threat to humans are buffered by the diversity of species that exist in tropical countries. A decrease in biological diversity hence means a risk in increased spread of tropical diseases. Many argue that such diseases are responsible for the lion's share of tropical countries' economic challenges.<sup>3</sup> One of these diseases is the hookworm infection, considered a neglected tropical disease, causing childhood and maternal anaemia, which risks leading to disabilities.<sup>4</sup>

As the story of Marjorie shows, young girls in developing countries are often involved in agricultural work and work to support the home, such as gathering fuel and carrying water, instead of staying in school. For families who work in the informal agriculture sector, taking children from school to the farm is often necessary. It is important to note however, that in developing countries, children's contribution to a family's yield are often insignificant in the efforts to lift the family out of poverty, since children lack necessary training and experience. In addition, children

are more vulnerable as agriculture workers. The agriculture sector is counted among the top three dangerous sectors in which to work, in terms of the number of work-related deaths, accidents and cases of occupational disease and ill health.<sup>5</sup> In South-East Asia, many poor families rely heavily on small-scale agricultural fishing for their livelihoods, and with effects of climate change starting to show, they identify new threats to their already fragile positions.

As women and young people make up a large share of fisher people, ensuring that small-scale fishing survives, through enhancing the capacities of women and young people to carry out their work, is crucial in the face of climate change. At the same time, initiatives that make it possible for children and young people, particularly adolescent girls, in fisher families to enroll in education, are imperative. Adolescent girls without education or only primary education face higher risks of unwanted and/or unsafe pregnancy, lack of sustainable livelihoods and lack of opportunities for empowerment.<sup>6</sup>