

The Farmers of the Sea in Bali

Indonesia. Bali. April 2007. On the riverbeds of the Island of Nusa Lembongan, throughout the night of the full moon, the entire population is dedicated to the harvest of seaweed. Under the protection of the gods and the stars, lit by lanterns or homemade torches, men and women cultivate the sea. The story has 37 pictures. 10 are presented on this site.

Bali, Island of the Gods whose sacred haven is assured by the people. In order to protect the fishermen of seaweed – and to attract luck – Ni Wayan Lasmimi burns incense and offers prayers in the direction of the ocean. It is three o'clock in the morning. The crowing of the roosters wakes the fishermen who will soon be at work. Bottles half filled with gasoline with wicks lit are used as lanterns. Already small points of light here and there signal the departure of the small boats slipping slowly into the black water that reflects the light of the moon.

Swastiawan and Ni Wayan Suliati, husband and wife, navigate in the direction of their fields of seaweed that cover a surface of four thousand square meters, all close to the coast. They belong to a group of twenty-nine members who form the “Segura Raska” and whom are aided by the Balinese NGO agency for development, Kalimajari.

“Purnama tilem” is the Balinese expression that describes the few nights preceding the full moon, period of low tide, when the fishermen can take advantage of harvesting the green and red seaweed from which they make their livelihood. It is algoculture – the growing of seaweed- that represents more than 90 per cent of the economic activity on the Island of Lembongan. Tourism makes up the other 10 per cent.

Of the 30,000 species of seaweed known in the world, only a few can be exploited. In Bali, it is the seaweed *Kappaphycus alvarezii* that is grown and sold to the industrial sector where it's known as "eucheuma" or "cottoni". To the Balinese, they call their seaweed "Bulung". When it's dried, it becomes "carragheen" to all and is used in many ways. It can be found in food such as thickeners or gels, icing, whipped cream, pastry and jams. The pharmaceutical industry uses it for pill capsules, toothpaste, dental moulds and cosmetics.

"The harvest of seaweed has great potential," says Swastiawan. "I was a student but being an only son, I had to become a fisherman of seaweed. It's part of our culture, and I didn't have a choice."

The water is not deep, maybe fifty centimeters, and with the glow of the lanterns, it's time to fasten the cuttings attached to the submerged lines stretched out between the faithful. The farmers must wait every six weeks to harvest.

Further, bundles of cuttings are loaded into floating baskets from other fields where the harvest has produced a sufficient quantity of seaweed. By early day, the boats regain the banks filled with several dozens of kilos of precious plant.

Next, women and men spread the production on plastic sheets for the sun to dry the crop. After the nightshift, the workers must return to the fields of seaweed towards mid-afternoon, under the sun this time, at the hour of the low tide. They are working day and night.

The entire family works - the young, the less young and often the old, without any resources. If all goes well, and if the production is not affected by any disease, Swastiawan should produce about 500 kilos per month. Once the product is conditioned, it will be

exported to Djakarta, then Europe, China and North America. His profit will be about one hundred euros or a little over a hundred US dollars.

The cultivation of the seaweed *Kappaphycus alvarezii* generates a growing interest within the Bali population. Moreover, the rapid maturity of this specie and its conservation duration (two years) makes this type of algoculture attractive.

For Swastiawan and his wife, their principle preoccupation is to ensure a steady livelihood to maintain a good quality of life. May the farmers of the sea have many beautiful nights before them under the protection of Mount Agung.

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