Climate

# Waiting for El Niño!

**Not all fisherfolk are petrified by the arrival of the El Niño phenomenon, as reports from Peru indicate**

The El Niño phenomenon of 1997-98 wreaked havoc in Peru. Torrential rams in several regions washed away roads, houses and existing infrastructure. The fishery sector was especially affected as fish production suffered dramatic declines. This was the story in most parts of Peru, as was highlighted in the last issue of SAMUDRA Report.

On a recent trip to the port of Tambo de Mora in Central Peru, however, one got a different picture after speaking to a group of women fishworkers there. Tambo de Mora is one of the few areas that actually benefited during the El Niño occurrence. In normal times, the main species caught here are *raya* (rayfish) and *pejerrey* (Peruvian silverside). In fact, this is one of the most important ports in Peru for rayfish. But rayfish does not have much of a market. In Lima, the main fish market in Peru, the demand for this species is insignificant. The fish, in salted and dried form, finds a limited market primarily in the inland and mountain regions of the country. So even though production is good, the income from the fishery is low—except during periods of El Niño!

During El Niño periods, this little port gets completely transformed, with the appearance of commercially valuable species, such as shrimp *(langostina).* In 1998, Tambo de Mora recorded a shrimp production of over 90 tonnes (see Table I). A similar phenomenon was observed during the El Niño of 1983. The El Niño of 1983 was a bit different in that, at that time, the shrimps had a reddish hue. During the recent El Niño the shrimps were whiter and bigger in size, but fewer in number. The price obtained was much higher—US$4 to $7 per kg, compared to about US$ I per kg during the El Niño of 1983.

Other commercially important species, such as lobster, also make an appearance, though in fewer numbers. However, fishworkers do not have the skills to harvest lobster, nor are they aware of how it should be consumed—They sell only what they catch incidentally.

The first appearance of shrimp in Tambo de Mora in 1998 was followed by a period of hectic activity. Fishermen rushed to equip themselves with trawls. There were others who were attracted by the lure of quick profits. They purchased new gear, motors and small boats capable of trawling in inshore waters, applied for licences and joined the scramble.

Those who joined the fishery were not only local fishermen. Also involved were workers on industrial vessels, workers in fish processing and fishmeal plants, government employees, workers in textile plants, busowners... They came from communities in the north, from places like Chancay, Huacho, Supe and Pucusana. The industrial sector, though not fishing directly, bought artisanal vessels to join in on the shrimp rush.

The boats worked seven days a week. Local fishermen worked alongside those from elsewhere, and there were no visible signs of conflict. Around 40 new vessels were estimated to have joined the fishery. Refrigerated trucks from Lima appeared on the port to carry away the shrimp.

**Timing changes**

Local fishermen changed the time they went out to sea, so as to be able to supply the trucks waiting to take the catch to Lima—instead of leaving at night and returning early morning, they left early morning to return by afternoon. Much money was made during the all-too-brief six-month shrimp boom.

Landings of Fish for Human Consumption
at the Port of Tambo de Mora (live weight in tonnes)

| Species | 1996 | 1997 | 1998 |
|---|---|---|---|
| *Ayanque* | 2.13 | | 4.57 |
| *Babosa* | | | 0.27 |
| *Barbon* | | | 0.43 |
| *Bobo* | 82.97 | 24.81 | 24.85 |
| *Bonito* | 0.69 | | |
| *Coco* (coc croaker) | | | 8.24 |
| *Chauchilla* | | 8.97 | 28.21 |
| *Guitarra* | 0.98 | 4.33 | 3.65 |
| *Lamgostino* (shrimp) | | | 92.68 |
| *Lenguado* (sole) | | | 0.43 |
| *Lisa* (striped mullet) | | | 0.26 |
| *Loma* (lorna drum) | 4.09 | | 1.38 |
| *Mojarilla* | | | 0.19 |
| *Pampano* | 0.43 | 0.40 | 22.85 |
| *Pejerrey* (Peruvian silverside) | 14.77 | | |
| *Raya* (ray) | 83.60 | 10.34 | 17.75 |
| *Sierra* | | | 5.79 |
| *Tembladera* | 3.58 | 1.72 | 8.06 |
| *Tollo* (humpback smoothhound) | 3.49 | | 1.66 |
| TOTAL | 204.82 | 50.57 | 221.26 |

Source : Regional Department of Fisheries, Pisco, Peru

Things reverted to normal in the early months of 1999. The shrimp disappeared, and once again rayfish became the principal catch. There refrigerated trucks were no longer to beseen. Those who had purchased boats and motors, are now looking for money to buy nets other than trawl-nets, which are of no use anymore.

A similar story can be heard a little further south of Tambo de Mora, in the Laguna Grande area, located inside the famous natural reserve of Paracas. Even during normal years the lagoon is a rich area for sedentary, shellfish species. But during periods of the El Niño, scallop production goes up manifold. In fact, scallop production during normal years is only 10 to 20 per cent of the production during the El Niño period (see Table 2).

These spurts in production also pose unique management problems, given the sedentary nature of the species, and lead to several conflicts since, at such times, there is an inflow of people from other areas, both from the south and north, where the fishery has been devastated by the impact of the El Niño. They come to join the scallop fishery in large numbers, to tide over the difficult period back home.

The previous El Niño of 1983, for instance, had seen a big increase in scallop

**Landings of Fish for Human Consumption**
**At the Port of Laguna Grand (live wieght in tonnes)**

| | 1996 | 1997 | 1998 |
|---|---|---|---|
| Fish | | | |
| *Cabinza* | 0.9 | | |
| *Cabrilla* (Peruvian rock seabass) | | | 17.5 |
| *Cojinova* (pulm ruff) | | 26.5 | 3.3 |
| *Corvina* | | 154.9 | |
| *Caballa* (mackerel) | 0.3 | | |
| *Chauchila* | | | 10.0 |
| *Jurel* (southern jack mackerel) | | 44.3 | 20.0 |
| Shellfish | | | |
| *Almeja* (carpet shell) | | 141.9 | |
| *Choro* (colga mussel) | 1,579.9 | 1.2 | |
| *Chanque* (abalone) | | | |
| *Caracol* (chocolate rock shell) | 70.1 | 0.4 | |
| *Calmar* | | | |
| *Conhca de Abanico* (scallop) | 232.5 | 188.3 | |
| *Erizo* (sea urchin) | 90.6 | 30.6 | |
| *Lapa* | 0.4 | 6.0 | |
| *Mejillones* | 2.8 | 108.3 | |
| Crustaceans | | | |
| *Cangrejo* | 116.4 | | 43.9 |
| *Jaiva* | 68.0 | 69.2 | 2.1 |
| Total | 2,180.7 | 771.6 | 2,061.9 |

production that lasted for a three-year period. The pressure on the fishery increased too, due to the influx of people from other areas. This led to massive overfishing. Production of scallop then declined to a point where the fishery had to be closed down completely for a year.

However, despite the closure, a couple of enterprises with known political connections continued to purchase and process scallop illegally. Local fishers decided to protest against these illegal activities. They also decided to demand lifting the ban on scallop extraction. To force the authorities to heed their demands, the *syndicatos* (unions) and local associations of fishworkers went on strike, blocking traffic on the roads.

Subsequently, the local associations decided to observe some basic rules to regulate scallop extraction. Rules defining the maximum amount that could be caught by each vessel, minimum size of scallop, etc. were adopted. Local people formed associations. Some of them were able to obtain 'special concessions' from the Ministry of Fisheries to establish their rights to fertile areas in the lagoon. Others established informal rights over such areas.

However, with the El Niño came once again the massive influx of fishers and divers from the south and north. Almost 100 families from the south settled down in Laguna Grande, since there was no fish in their waters. Many more fishers came, but they returned to their communities after a few months. The ones who stayed back plan to continue in Laguna since they fear it may take another couple of years for the fish to recover in southern waters.

**Situation changed**

Many of these people had come even during the previous El Niño. However, this time they found the situation had changed. Local associations had delineated areas of the lagoon and refused to allow access to these areas to the new entrants. This gave rise to many conflicts. The locals even tried sending away the new entrants, resorting to threats and even violence. It has not been easy for the new entrants to stay on and eke out their living.

As during the previous El Niño, all systems of regulations broke down with the massive entry of outsiders into the fishery. However, this time the *syndicate* and the associations are determined to prevent a repeat of the previous collapse. The *syndicate* has had several discussions with the authorities and they are planning to enter into an arrangement with the Ministry of Fisheries and the captain of the port for better enforcement of regulations. Under this arrangement, the *syndicate* will provide part of the resources for better enforcement.

In the meantime, much money has been made during the scallop boom. Processing plants have been working non-stop, through the night. For people in the neighbouring communities, this has meant employment opportunities; it is a common sight to see women and men lined up outside processing plants late in the night, seeking to work the night shift. Exporters are raking in big profits.

Hardly surprising, then, that a few small coastal communities in Peru are waiting for the next El Niño!

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