

Dried, Tried, Tasted

At the core of the unique flavours and tastes of the East Java cuisine of Indonesia is the traditional artisanal fish processing technique of *pindang*

Sumenep Regency is located at the eastern end of the Madura Islands in Indonesia's East Java province. It is known for its large fishery and marine potential. Several types of fishing gear exist in Madura, mainly the *payang*, a type of seine net, very common and essential among fishermen. The *payang* resembles a trawl net. By design, it has wings and a 'cod end' on the upper part of the net, supported by floats, and weights that secure the lower end. The second type of gear, introduced by the Indonesian government in Madura in 1976 to promote efficiency, is the purse seine. The purse seine fishery is characterized by high productivity and a larger scale, compared with the *payang* seine.

significant capital investment. Fish is an everyday food for the Sumenep community and is always present, in one form or another, in every kitchen as a source of staple protein.

Several local artisanal methods are used in processing fish as a part of post-harvest activities. These are linked to the limited cold storage facility in the local fish supply chain in rural Sumenep. The fish-processing practices have been sustained for decades through the local knowledge of the Madurese community. Take the case of a woman trader who sells various food items, travelling to eight different villages on a motorcycle each day from dawn to noon. She never sells fresh fish due to its perishability. In tropical conditions, fresh fish is particularly difficult to preserve, not only due to climatic and environmental conditions, which contribute to fish spoilage within a few hours, but also because of the lack of adequate equipment for refrigeration. To ply her trade in such conditions, she uses methods specific to each of the processed fish products she sells.

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Besides these two types of gear, the gillnet fishery has also played an essential part in the Madurese fishing community. Artisanal fishers used to operate gillnets around the island, where it is classified into three types: drift, shrimp, and set gillnets. Most of the artisanal fishers use the *bagan*, a fixed engine gear operated during a fishing season. The net is lowered using a roller. When a large number of fish have been gathered, the net is lifted; this process is repeated until sufficient catches are obtained.

Most of Sumenep's marine products are utilized for food. They can be classified into fresh fish and artisanal processed fish—dried, salted, boiled and smoked. There are also frozen fish, canned fish and fishmeal, which require

Traditional techniques

Five forms of fish products are in high demand in the local market here. First is the famous *pindang* fish. The term refers to the cooking process under which the ingredients are boiled in salt together with certain spices. In Sumenep, the *pindang* fish is usually cooked with salt only. However, as *pindang* is common not only in Sumenep, there are different ways of boiling the fish throughout other parts of Indonesia. These techniques are traditional in the communities of Java and Sumatra, where various preserved types of *pindang* are available in traditional markets. Some of the people might use shallot skins, guava leaves,



A smoked-fish seller at the Gapura Market, Gapura District, Sumenep Regency. Several artisanal methods are used in processing fish due to limited cold storage in the local fish supply chain in rural Sumenep.

teak leaves, tea, or other spices common in Southeast Asia. This gives the gravy a yellowish to brown colour; it also helps the fish last longer compared to plainly boiled fish.

In Sumenep's local market, it is common to find women vendors selling *pindang* from their baskets. They are usually skipjack tuna or mackerel in various sizes. The centres for making *pindang* are scattered throughout Sumenep, some in the northern areas such as Pasongsongan, Slopeng, Ambunten or Dungkek. The processing centres have begun to shift to the proximity of traditional markets, for example, the *pindang*-making stall located in Pasar Anom in downtown Sumenep. Most *pindang* traders are looking for means of cutting down the production and distribution cost.

The mothers in rural areas of Sumenep are the outstanding patrons of *pindang*. One reason they like the boiled fish is the familiarity – the taste produced by boiling with salt leaves a distinctive flavour. It also makes it easy to cook, usually deep-fried or cooked with a little sauce. The most famous *pindang* recipe is the *palappa*

koneng. In Madurese *palappa* means spices and *koneng* means yellow. *Sothis* means yellow spices. The boiled fish is cooked with various spices, including garlic, onion, candlenut, turmeric, chillis, tamarind, pepper, ginger, salt and sugar. *Pindang* is then boiled with all the spices that have been mashed together. The seasoned fish is then deep-fried just before it is served. Without a refrigerator or access to a chiller, the women rely on spices to preserve the fish.

Fish paste

The second product high in demand is the fish paste called *petis*. It is made by processing by-products, usually from boiled fish, mussels, or shrimp. These are heated until the liquid broth thickens into a sauce. In Sumenep, *petis* comes from the soup left over from the boiled *pindang*. *Petis* comes in various types and flavours. The Madurese *petis* made in Sumenep has a unique character. It tends to be salty and looks bright, with a brownish-red colour. Many Madura *petis* are produced in Pasean, Pasongsongan and Ambunten, the main locations for *pindang*-making centres.

Petis is often served with chilli sauce, which also accompanies rice, fried fish, and fried tofu or vegetables like chopped cucumber or sprouts. *Petis* is usually sold in the traditional markets or by mobile traders who visit the villages. For small-bag sizes, *petis* are sold at low and affordable prices. The locals believe that *petis* has given Sumenep's food a distinct identity that sets it apart from among other East Javanese foods.

The third fish product high in demand is smoked fish. Besides boiling, smoking is another artisanal technique to process fish in Sumenep. The fresh fish is smoked immediately on arrival. The processing activity is usually handled by women; they work together to smoke the fish by burning corn cobs and coconut fibre. The hot smoke produced by the combination of corn cobs and coconut fibre lends the fish a distinctive aroma. The heat from the smoke gives the fresh fish a shiny black colour. The smoking cooks the fish slowly so that it lasts longer without need of refrigeration.

products made on the island are sent out to many places in Indonesia. The most expensive ones are readied for export, while the cheaper ones are usually sold in the local markets. Since dried fish has more bones than meat, the more well-off consumers tend to shun it. 3

... thanks to its long shelf life, dried fish is the staple food during times of hardship, when other kinds of fish are too expensive.

Two other forms of processed fish are popular: sun-dried fish and salted fish. Both rely on a similar drying technique, with sea salt being added in the latter case. Most of the workers are women; they manage various kinds of jobs from cleaning and drying the fish, adding salt, to packaging the fish to sell in bulk. The women fish workers mostly work in pathetic conditions in the processing units and get low wages.

The selling price of dried fish depends on the size and the quality of fish. In Sumenep and its surrounding rural areas, dried fish is available at affordable prices. Those with deeper pockets usually don't prefer it.

Export demand

The dried fish industry in Sumenep is well-known in East Java, and the

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http://www.gbgindonesia.com/en/agriculture/article/2014/indonesia_s_aquaculture_and_fisheries_sector.php

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