

When the fish are just an SMS away

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KUALA LUMPUR: Imagine a fisherman getting a text message on his handphone telling him exactly where the fish are going to be on a particular day and time.

All he then needs to do is set sail for that location and fish to his heart's content.

Impossible? Not so, as this is already a reality for some fishermen in Kelantan, Terengganu, Pahang and Johor, thanks to fish-forecasting.

Fish-forecasting was launched at the Malaysian Innovative Festival 2010 on Nov 25.

But what exactly is fish-forecasting?

Malaysian Remote Sensing Agency (ANSS) director-general Datuk Darus Ahmad said the innovation involved the use of satellite technology to tell fishermen where and when to fish.

"The satellites can detect fish food such as phyto-plankton as well as measure sea temperatures, which is important as the growth of plankton is related to sea temperatures.



Malaysian Remote Sensing Agency director-general Datuk Darus Ahmad showing how fish-forecasting works.

"Fish concentration is also influenced by sea temperature.

"This satellite data would be analysed, with the final product being the location map of potential fish areas."

The project, which is a joint collaboration between ANSS, the Fisheries Development Authority of

Malaysia (LKM), the Fisheries Department and National Fisheries Association of Malaysia (Nokmat), has also been earmarked for expansion to the peninsula's west coast as well as Sabah and Sarawak.

This technology has already reduced fish-sourcing time and fuel costs by 30 per cent for fishermen.

Fish yield is also expected to increase by 20 per cent by January.

The initial cost of the fish-forecasting project was estimated at RM12 million but ended up costing only RM3.2 million.

"We managed to bring the cost down by using in-house experience and existing facilities at ANSS and the fishing agencies, instead of totally depending on outsourcing."

How does fish-forecasting work? Data is received daily at the ANSS ground station in Temerloh, Pahang. It is then processed immediately.

Basic information related to the location of fish such as sea temperature and phyto-plankton is extracted and is further processed and converted into a map which pinpoints the location of the fish.

These locations are translated into Global Positioning System (GPS) readings and disseminated to local fishermen organisations via the short messaging service (SMS).

The locations can also be accessed through a dedicated portal under ARMS which can be accessed using a password by member fishermen.

"Each location provided is valid for three days. This means the fish are supposed to be in that area for a maximum three days.

"Currently, we SMS eight local fishermen associations which covers 50 vessel owners. We receive the satellite data at 10am or 11am and we usually are able to pass the information to the fishermen at 1pm so that they can use the information immediately," explained Darus.

Nokmat acting deputy general manager Salehuddin Abu Bakar said both boats that go out to sea for a week or more would spend RM1,000 to RM3,000 a day.

With this technology, said Salehuddin, fishermen could save up to RM9,000 for a duration of 10 days.

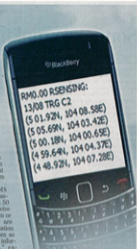
He said the system was meant to promote sustainable fishing.

"The monsoon helps, too, as fishermen can't go out to sea during that period. From March to June, the sea becomes quiet again and the fish are able to grow in marketable size."

"In future, we plan to identify the type of fish in a location and the size of the fish. If the fish are not mature or too small, we may not disseminate the location of the fish to the fishermen."

"Most of our fish are imported as we have almost depleted our fish reserves. By using this technology, we can reverse this situation."

"This technology will also save the government money.



A SMS on where the fish are.

as fishermen would need to go out to sea less. This translates to less fuel used and the government spending less on fuel subsidies," said Salehuddin.

Yahya Mohamad, LKM marine fisheries development section head, said the country currently produced 1.2 million tonnes of marine fish a year.

He said four zones, A, B, C and D, had already been drawn up to prevent overfishing.

Zone A and B, said Yahya, are only for vessels between 10 and 40 tonnes, while Zone C is for vessels between 40 and 70 tonnes. Zone D is for vessels 70 tonnes and above.

"We will also be drawing up regulations as to what the fishermen can and cannot do."



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- 4 These locations are translated into GPS readings and disseminated to local fishermen organisations via SMS.

