



Scientists offer bold visions

Two young intellectuals are devoting their lives to improving the world. One creates health care solutions like artificial kidney treatments, while the other conducts agricultural research.

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Healing hands

She was born severely disabled, but this acupuncturist from a rural northern village went on to earn a degree in traditional medicine and heal many patients.

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Preserving old houses

A Hà Nội artist is fossilising clay models of Old Quarter buildings in amber as a way to preserve the ancient structures, which are one after another falling victim to modern development.

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VNA/VNS Photo Đinh Na

Organic coast

A new project in the southern province of Cà Mau encourages farmers to grow organic shrimp, while moving towards an integrative model of aquaculture – a way to help restore the balance between their production and the precious mangrove trees that shield the coast from land erosion.

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Williams eyes next win

Serena Williams, the current world number one tennis player, is aiming for yet another Grand Slam title. Winning is not quite assured, but her prospects are looking increasingly bright.

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Natural shield: Located in the UNESCO-recognised Cà Mau Cape Ramsar Biosphere Reserve, these mangrove forests protect land from tidal waves, strong winds and soil erosion. VNA/VNS Photo Nguyễn Thanh Dũng

A new model of integrative shrimp farming introduced in Cà Mau will help farmers earn more while preserving the mangrove trees that aquaculture often destroys. **Phạm Hoàng Nam** reports.

Shrimp project helps create 'organic coast'

Trần Quốc Văn is excited about his future since his shrimp farm is all set to get organic certification.

"If we can get the certification for our shrimp, we don't need to worry how to sell and the price could be 10 per cent higher than usual," Văn said.

It all began in May when Văn and 1,074 other households living in the southernmost province of Cà Mau's **Nhưng Miên** Protective Forest were invited to take part in a four-year project to get organic shrimp certification by the International Union for Conservation of Nature and the Netherlands Development Organisation.

The goal of the project is to help local shrimp farming systems become more profitable by combining them with protection of mangrove forests, thus boosting both profitability and sustainability while also increasing coastal resilience to climate change.

Shrimp farming is one of



Certification: New shrimp farms that meet organic requirements will receive a quality certificate. VNA/VNS Photo

Việt Nam's leading export-related activities. But it is also the leading cause of mangrove loss in a country with a long, densely populated coastline that is vulnera-

ble to tropical storms and sea-level rise.

So the sustainability of the shrimp business and the conservation of mangroves are both national priorities.

The project, funded by the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety, focuses on a group of around 2,700 farmers who

Higher profits

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use an integrated model of farming shrimp in mangrove forests in which each household has to earmark 60 per cent of the land for growing mangrove.

They may get significantly lower yields per hectare than intensive shrimp farms, but have a highly diverse output, lower costs, and much lower risk of crop failure.

Not only is this model resilient to disease but also stable and profitable, with incomes significantly higher than from traditional farming.

Better still, because the farming is essentially natural, the shrimp can be certified as

organic, which allows the farmers to meet growing international demand for organic goods and get a premium price for their products.

"We have 2,683 households living inside the protective forest, but only 1,075 got training in farming organic shrimp and 741 of them (owning 2,647ha) were selected to join the project," Tạ Minh Mẫn, deputy head of the Nhưng Miên Protected Forest management authority, said.

The forest is in Ngọc Hiển District in Cà Mau, which is home to half of Việt Nam's mangrove and shrimp farming areas.

The project has worked to include as many farmers as possible in the process, both through training and helping them ensure a 50 per cent mangrove cover on their farms that will enable them to get organic certification for their shrimp.

The project will help plant mangrove in farms that do not meet the 50 per cent criterion, and has organised farmers into groups that work towards achieving it jointly rather than individually.

Households are trained to get certification in raising shrimp without giving them industrial foods or chemicals, managing household waste, and forest protection.

To effectively start the project, an agreement was negotiated with the Cà Mau-based Minh Phú Company, the world's second-largest shrimp exporter in terms of value, for it to buy all the certified organic shrimp that farmers produce at a 10 per cent premium.

In the past organic certification for shrimp farms in Việt Nam had issues like low prices, late payments, and a lack of transparency that had farmers questioning the economic value of certification. They have all been resolved with the new model.

The company will also pay for the annual audit and internal control systems that ensure the chain of custody from the farm to the processor.

"Basically, we do not see any difference in the way of feeding organic shrimp," Văn said.

"In the past we had natural shrimp breeding but now it has reduced and we have the Minh Phú Company providing good shrimp at cheap prices.

"And then we change the water for the shrimp every

two weeks without feeding them industrial foods or using chemicals."

But after the training he knows how to identify diseased shrimp, why to protect forests, and the relationship between shrimp, seafood,

"Changing a habit is not easy but my family recognises that this is a good habit and it is needed to sustain our income, and so we change."

and mangrove forests.

"I used to worry because I recognised that the capacity for shrimp feeding in the old way was becoming less and less.

"And now I understand how I can sustain production and our living," he said.

Getting started

"In the beginning, no one cared about the project because they thought it was the same as the ones they had done in the past until they realised it can provide them stable earnings," Mẫn said.

Organising training courses for 1,075 households needed a lot of effort but only when farmers got through them could the project start.

The one thing that seemed easy to build was a toilet. "But the cost of building a normal toilet is not low and is VNĐ5 - 7 million (US\$250-350)," Nguyễn Đắc Lộc, a technician working in the Nhưng Miên Protected Forest, said.

"It is too expensive for the project and over 500 households in the project do not have toilets."

Lộc has studied and found that a removable plastic toilet can be used for 10 years and costs a reasonable VNĐ1.5 million.

He said people donating toilets to families have to spend VNĐ500,000 - 1 million to cover the toilet.

"And we have resolved the problem. Now farmers will get toilets very soon."

Phan Minh Toàn, 29, of Nhưng Miên hamlet, Ngọc Hiển District, said: "Changing a habit is not easy but my family recognises that this is a good habit and it is needed to sustain our income, and so we change."

Toàn has got a plastic toilet and bought construction materials, and is waiting for builders to put a roof over it. His toilet has become a curiosity for neighbours to see and study.

Young shrimp were supplied by the Minh Phú Company in November and farmers can harvest in

March.

"After all 741 households have toilets, we will sign a contract with them and invite an international organisation to come and check their quality," Mẫn said.

"If they approve and provide certification, farmers will have long-term earnings."

Văn added: "The future is a long time and there is a lot of work to do, but I believe in

the project and hope our incomes can remain stable."

The Cà Mau authorities now want to scale up organic certification to 20,000ha of integrated mangrove-shrimp farms by 2020.

The vision is to establish an "organic coast" that both produces high-value certified shrimp and protects against rising sea levels and potentially stronger storms. VNS



Healthy yield: A farmer works on his shrimp farm. VNA/VNS Photos Trọng Đức



Commercial channel: In Cà Mau canals are the local people's roads.



Nothing fishy: Shrimp grown on farms are examined for disease or antibiotics use. VNA/VNS Photo Duy Khương