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## Are insects the answer to global malnutrition?

By Amelie Bottollier-Depois (AFP) – Apr 21, 2011 0

VIENTIANE — Serge Verniau is a man with a mission: to persuade the world to swap the chicken wings and steaks on their plates for crickets, palm weevils and other insects rich in protein and vitamins.

Verniau, the Laos representative of the UN Food and Agriculture Organisation (FAO), is only half-joking when he says his dream is "to feed the big metropolises from Tokyo to Los Angeles, via Paris" with the small arthropods.

He plans to present the lessons drawn from a pilot project to the world at a conference on edible insects, probably in 2012.

"Most of the world's population will live in urban areas. Trying to feed the whole planet enough protein from cows won't work," Verniau told AFP.

It is not by chance that the dream was born in landlocked Laos, one of the world's poorest countries.

Almost one quarter of its population of six million people, and nearly 40 percent of children below the age of five years old, suffer from malnutrition, according to figures from the Laos government.

The typical rice-based diet provides insufficient nutrients for development — a shortfall that could be filled by insects, highly rich in protein and vitamins.

Eaten as snacks, grilled or fried, they are already part of Laos cuisine, but most people do not know how to breed them, said Oudom Phonekhampheng, dean of the faculty of agriculture at the National University of Laos.

"They just take them in the wild and eat them, and then it is finished and destroyed. They have to think about the future," he said.

In a modest building in the suburbs of the capital, his department's laboratory collects scientific data on this new area of breeding.

Along with house crickets — which are already widely farmed in neighbouring Thailand — there are experiments in breeding mealworms, palm weevils and weaver ants, which are appreciated for their larvae.

The students are trying out different foods for the insects in an attempt to reduce costs while maintaining quality, explains Yupa Hanboonsong, a Thai entomologist supervising the project for the FAO.

Up to now, the roughly 20 cricket farms operating in Laos have used chicken feed, like thousands of Thai farms, but it is expensive and must be imported.

Vegetables or waste left over from the production of the national beer, BeerLao, could be one solution, said Yupa, who hopes to "train the whole country."

Beyond the fight against malnutrition, this new economic activity can also generate revenue for farmers, added Yupa.

Phouthone Sinthiphanya, 61, seized the opportunity in 2007 to supplement his meager pension after a career in the tobacco industry.

The 27 cylindrical concrete vats, about 50 centimetres (20 inches) tall, installed in the garden of his house in Vientiane produce 67 kilos (148 pounds) of crickets every two months, he explains.

One kilo of live insects fetches 60,000 kips (7.5 dollars). The same quantity crushed sells for 50,000 kips.

"I worked for a tobacco company and then retired. My pension was not enough so I started farming insects," he said.

"Our customers are restaurants, villagers, markets," he said, adding that breeding the small creatures was "easy".

It requires little space or natural resources and only their singing might annoy the neighbours.

"Insect farming creates less damage to the environment. It is a green protein," said Yupa.

Proponents believe such nutritional and environmental advantages could be beneficial beyond Laos, particularly in other developing countries where people are used to eating cicadas and grasshoppers.

"You can make powder from crickets that is very rich in protein. It's low in fat and it can be added to biscuits in problem areas where food rations are distributed," said Verniau.



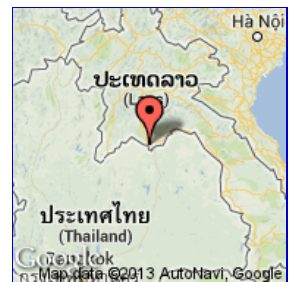
Photo 1 c



Eaten as snacks, grilled or fried, insects are part of Laos cuisine



### Map



Nor has he given up hope of persuading sceptics in the West.

"When you look closely, a grey shrimp or a cricket, it has the same appeal," he joked.

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