Fight on to keep dam from turning pristine paradise into 'death valley'

An unlikely alliance has been formed to block efforts to flood the Central Cardamon Protected Forest to make way for a dubious hydroelectric project that puts the future of the indigenous people and the multitude of wildlife that live there in doubt *By Rod Harbinson*

ecognised internationally as a natural treasure of biodiversity, Cambodia's Central Cardamom Protected Forest faces mounting pressure from agricultural clearance and infrastructure projects. Now an unlikely alliance of Buddhist monks, students and farmers has started to speak out against the threats, and have even taken to blessing trees in an effort to save them.

On a mission to see the forest and speak to the people most affected by the threat to it, the remote Areng Valley was our destination — 55km through the jungle along what I was to discover was more an overgrown path than a road. During the rainy season it becomes impassable, cutting off the inhabitants for months on end. I climbed into pillion position on the dilapidated luggage-laden scooter with some trepidation.

The hidden valley is home to 1,600 mainly Khmer Daeum indigenous people and a final refuge of 31 endangered species. This includes one of the only breeding sites of the critically endangered wild Siamese crocodile, numbering only 200 globally. With government plans to dam the valley, flooding more than 20,000 hectares of protected forest and farmland, the future for all its inhabitants looks bleak.

Arriving in Areng we brushed the dust off as the local people in a noodle shop listened intently to the radio. President Hun Sen was making a rare visit to neighbouring Thmar Bang to conclude his four month nationwide land-titling scheme. It is seen as a response to appease a growing number unhappy about appropriation of their land by the country's elite. With national elections scheduled for July, the scheme appears calculated to win votes.

Much of the survey leg work has been done by young student volunteers drafted in from

other provinces. Isopepe and Iregine, two young women wearing combat uniforms, said that during "two days of training" they had learned how to operate a global positioning system handset and to log the land titles in a paper register. In his speech Hun Sen said: "While senior officials may have problems reading English instructions on GPS, I am sure the trainee officials can help."

Hun Sen explained that the Stung Cheay Areng dam is part of a wider hydroelectric programme for the region: "The potential in Koh Kong for development is huge. It will have four hydropower plants to provide energy to several provinces."

Backed by the Chinese at a cost of US\$320 million (9.3 billion baht) the dam has, however, been assessed as poor value for money by the Japanese International Cooperation Agency. In a report commissioned by the Cambodian government, the agency cites the high cost of electricity per unit for the 108 megawatt output it would provide. In addition it indicates that the area to be flooded is large compared to the electricity generated. This may in part account for why the original development company, China Southern Power Grid, pulled out of the deal in 2010.

The Cheay Areng dam, to be built in the supposedly protected Central Cardamom forest is especially contentious. Unlike the others this valley has a large population that would be difficult to relocate and costly to compensate.

Ame Trandem, Southeast Asian programme director of NGO International Rivers, says details of the project under the new management remain obscure. "The project's environmental impact assessment was approved by the government in 2011, but has not been released to the public, so has never been up for public scrutiny."

The old assessment says of the 1,640 residents the valley, 900 will be forcibly relocated.



PROTECTING MOTHER NATURE: Local monks conduct a tree ordination ceremony



IN PERIL: Siamese crocodiles are among the endangered species under threat.

This is a good village to live in because there is no need to buy food as we can find it by ourselves, such as fish from the lake. We can gather fruit, rubber and many medicines from the forest. If we have to move to a new place it will be very difficult . . .

SOM SOKHA
VALLEY RESIDENT

Local people remain unclear about the terms of compensation and the relocation area. They rely on outdated information, mainly because no one has been to talk to them about the situation since the project was taken over by the China Guodian Corporation. However, the company's survey teams have recently been active in the valley, indicating that work is proceeding.

According to the old relocation plans, the dam would force inhabitants to move to the site of Veal Thom adjacent to the reservoir, and at 2,347 hectares, a small portion of the 20,000 hectares due to be flooded.

This site also lies in the path of an elephant migration route considered important by groups such as Conservation International. Here forest would need to be cleared for new villages and farming. Transmission lines, a substation, accommodation for 1,200 workers and access roads would all add to the area affected, making the overall footprint of the dam site far greater than just the reservoir.

Som Sokha, valley resident and father of seven, is content with his current situation. "This is a good village to live in because there is no need to buy food as we can find it by ourselves, such as fish from the lake," he said. The forest is also still an abundant resource. "We can gather fruit, rubber and many medicines from the forest."

"If we have to move to a new place it will be very difficult because there is no river. It would mean digging a well, but I have no idea how many metres we would have to dig to strike

Som Sokha said compensation promises were made by the old company, but he is worried. "What happens if we move to the relocation site and none of the promises are honoured? It would be like living under the Khmer Rouge."

Meuk Pa, an 80-year-old widow who inherited land in the valley from her parents, has spent a lifetime tending it. "I feel sorry about my house, buffalo, fruit trees and all my property here. If they want me to move to another place then I don't know what I will do."

Her worries are shared by an elderly neighbour, Ngeck Djerk from Somraong village. "I don't know where they will move me to. I shall feel like a chick who's mother has been killed," she said.

Walking downriver at sunset the sky was full of birdlife — 12 hornbills and an eagle in just a few hours. Countless animal footprints pocked the sandbanks: deer, wild pig, monkey and then a curious clawed footprint, between which was the distinctive shape of a belly dragged over the wet sand — crocodile. Looking closer we saw more of the same footprints, but smaller — a juvenile. The fresh prints suggested they had slithered away on hearing our approach.

We waded into the water again. It was gloomy now and the river had become deeper reaching our chests. When we emerged at the next sandbar we shared a sense that the crocodiles were watching.

Many locals had stories of the crocodiles and more than one had had dogs taken on fishing trips. One told of his horror many years ago at seeing a young girl being dragged beneath the water while swimming, never to re-emerge. But stories of the crocodiles attacking people are few and fishermen wearing masks still venture beneath the water to spearfish.

Professor Grahame Webb, chairman of the International Union for the Conservation of Nature Species Survival Commission, Crocodile Specialist Group, sees great value in the acceptance locals have for crocodiles. "In areas like the Cardamom mountains you have a unique situation in a very remote area where the indigenous people and crocodiles have a social and cultural tolerance of each other . . . so everyone's hoping that they can come up with a system in the Cardamom's where that relationship can be sustained," he said.

Kum Chae, headman of valley commune Prolay, explained the tradition. "We believe that the crocodiles carry the spirits of our ancestors and so we won't harm or catch them to eat. If anyone does they risk falling ill, other people falling ill, or even dying."

Opinions differ on the best conservation approach. In February, Flora and Fauna International (FFI) launched an emergency rescue appeal stating that the dam would "obliterate" the crocodile population unless they are "immediately relocated".

They said this is necessary because in the reservoir "artificially fluctuating water levels will make it impossible for them to nest successfully".

The FFI said that Cambodia's Forestry Administration has asked them to relocate the crocodiles by July to a site 70km away, at an estimated cost of \$50,000.

Ame Trandem queries the effectiveness of relocation.

"At the Atay dam which the Cambodian government has been building and conservation groups like the FFI have been "