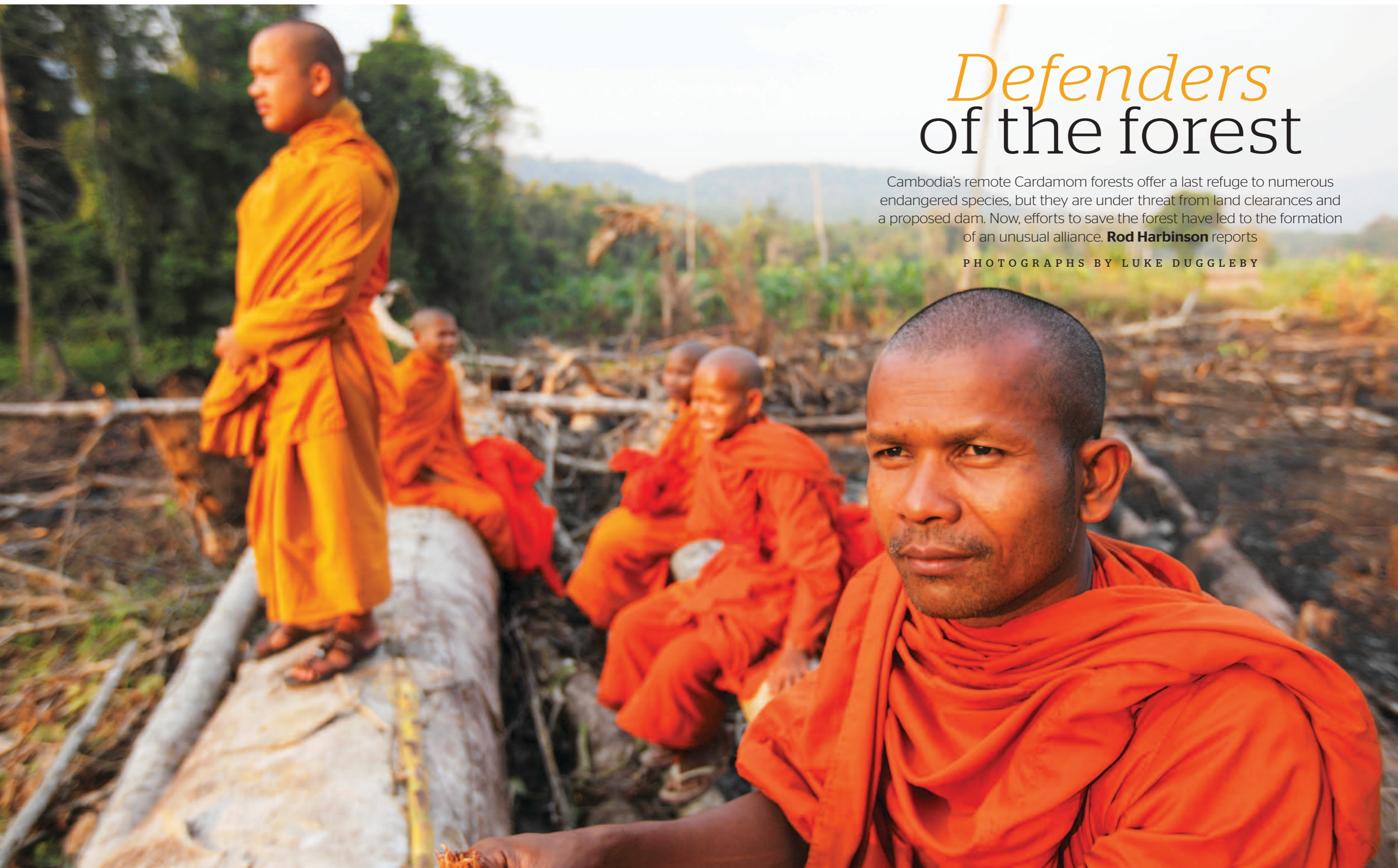


Defenders of the forest

Cambodia's remote Cardamom forests offer a last refuge to numerous endangered species, but they are under threat from land clearances and a proposed dam. Now, efforts to save the forest have led to the formation of an unusual alliance. **Rod Harbinson** reports

PHOTOGRAPHS BY LUKE DUGGLEBY



Our destination is the remote Areng Valley – a 56-kilometre journey through the jungles of Cambodia's Cardamom Mountains along what's more of an overgrown path than a road. I climb aboard our dilapidated, luggage-laden scooter with some trepidation.

The hidden valley is home to 1,600 people, mostly members of the Khmer Daeum indigenous group, which has lived in the valley for at least 600 years. It's also one of the last remaining refuges for 31 endangered species, including one of the only known breeding sites of the critically endangered Siamese crocodile, whose wild numbers have been reduced to only 200 globally.

But this sanctuary is now under threat. Plans are afoot to dam the Areng River, flooding more than 20,000 hectares of farmland and supposedly protected forest along the valley.

GROWING DEMAND

Arriving in Areng village, I climb off the scooter, stretch aching limbs and brush off the dust. Nearby, a group of locals crowds around a radio in a small noodle shop. Cambodia's president, Hun Sen, is making a rare visit to neighbouring Thmor Bang to conclude his four-month, nationwide land-titling scheme, the government's attempt to appease the growing number of people unhappy about appropriation of their land by the country's elite.

The president is discussing the Areng dam, which forms part of a wider hydroelectric programme for the region. 'The potential in Koh Kong [province] for development is huge,' he says. 'It will have four hydropower plants to provide energy to several provinces.' The programme is part of the government's plan to meet Cambodia's growing demand for electricity, which is forecast to double by 2020.

As with hydroelectric projects the world over, the plan is proving to be controversial, with the Areng dam especially so. Backed by Chinese investors at a cost of £200million, the dam has been described as 'inefficient' by the Japanese International Cooperation Agency (JICA), an independent governmental body that coordinates official development assistance for the Japanese.

JICA's report for the Cambodian government points out that the dam's modest output of 108 megawatts will come at a high cost – both monetary and in terms of area to be flooded. This may at least partially explain why the original development company, China Southern Power Grid, pulled out of the deal in 2010.

BEYOND SCRUTINY

Ame Trandem, the Cambodia country director for NGO International Rivers, says that details of the project under the new management remain obscure. 'The project's environmental impact assessment was approved by the government in 2011 but hasn't been released to the public, so it has never been up for public scrutiny,' he says.



'I don't know where they will move me to. I shall feel like a chick whose mother has been killed'

According to the original assessment, 900 of the valley's 1,640 residents will be forcibly relocated. Local people remain unclear about the terms of compensation and exactly where they'll be relocated to. They have to rely on outdated information as no-one has spoken to them about the situation since the project was taken over by the China Guodian Corporation. This is despite the fact that the company's survey teams have been active in the valley recently, indicating that work is proceeding.

According to the government's relocation plans, the valley's inhabitants will be moved to the village of Veal Thom, adjacent to the reservoir. But there are fears that the village is too small to accommodate all of the families, and that the land they will be allocated (three hectares per family) will be insufficient to sustain them. The village also lies in the path of an elephant migration route, setting the scene for conflict between villagers and the endangered mammals.

Areng Valley resident and father of seven Som Sokha 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 says. The forest is also still an abundant resource. 'We can gather fruit, resins 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,' he adds. 'It would mean digging a well, but I have no idea how many metres we would have to dig to strike water.'

Som Sokha says that the old company made



OPENING SPREAD: Buddhist monks sit on trees felled to make room for a banana plantation in Cambodia's Cardamom Mountains; **TOP:** local children carry a train of orange cloth as part of a Buddhist ceremony to bless the remaining trees; **ABOVE:** a hatchling Siamese crocodile. It's feared that a proposed dam across the Areng River will destroy one of the species' last refuges

promises of compensation, but he's worried. 'What happens if we move to the relocation site and none of the promises are honoured?' he asks. 'It would be like living under the Khmer Rouge.'

Eighty-year-old widow Mork Pa inherited land in the valley from her parents and has spent her life tending it. 'I feel sorry about my house, buffalo, fruit trees and all my property here,' she says. '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. 'I don't know where they will move me to,' she says. 'I shall feel like a chick whose mother has been killed.'

CROC LOVERS

As I walk downriver at sunset, the sky is alive with birds. Countless animal footprints pock the sandy riverbank: deer, wild pig, monkey and then a curious clawed footprint, between which is the distinctive imprint of a belly dragged over the wet sand – crocodile. Looking closer, I can see more of the same footprints, but smaller – a juvenile. The fresh prints suggest that the reptiles have slithered away on hearing our approach.

Many locals have stories of crocodile encounters and more than one has a lost dog while on a fishing expedition. One tells of his horror at seeing a young girl dragged beneath the water as she was swimming, never to re-emerge. But stories of the crocodiles attacking people are few and fishermen still venture beneath the murky water to spearfish.

Professor Grahame Webb, chairman of the International Union for the Conservation of Nature Species Survival Commission's Crocodile Specialist Group, sees great value in the acceptance that locals have for crocodiles. 'In areas such as 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,' he says.

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

RELOCATION PLAN

Opinions differ on the best way to protect the crocodiles. Last February, Flora and Fauna International (FFI) launched an emergency rescue appeal, stating that the dam would 'obliterate' the crocodile population unless it's immediately relocated. According to the organisation, Cambodia's Forestry Administration has asked it to relocate the crocodiles to a site 65 kilometres away, at an estimated cost of £30,000.

Trandem queries the effectiveness of relocation. 'At the Atai dam, conservation groups such as FFI have been working hard to try to relocate these crocodiles but they've only succeeded in relocating a few and it has cost them a lot of money,' he says.

'So I think this will be a very difficult undertaking and most likely impossible.'

Local people have expressed dismay at the fact that conservation groups have done little to defend them from the dam, and that FFI has started to remove their sacred crocodiles without their consent. Aung Pau, deputy head of Chum Noab commune, says that he followed an FFI team that included two foreigners as they drove away with a large crocodile in a hire truck. He hadn't been made aware that they had government permission and demanded that the crocodile be returned. 'Everyone in the commune of Chum Noab is asking for that crocodile to be returned because it is part of our beliefs,' he says.

Around the same time, locals discovered a dead crocodile – an unusual occurrence that locals attribute to FFI's traps, an accusation the organisation strenuously denies.

UNLIKELY ALLIANCE

Concern about accelerating fragmentation of the Cardamom forests has led to the formation of an unusual coalition. Cambodia's student movement recently teamed up with the Coalition of Cambodian Farmer Communities and a group of Buddhist monks. Together with local people, they held a ceremony to ordain old-growth trees in the community of Ta Tay Leu, located next to the Areng Valley.

Attracting the support of many local women and children, the entourage wound its way through the smouldering remains of giant trees that had, until recently, been verdant rainforest. As we tramped through the smoke and ashes, a tree crashed to the ground not 20 metres away.

Chanting a blessing at each tree, the monks tied orange sashes around their trunks, intended to highlight their spiritual value and deter people from cutting them down. In this case, they were attempting to halt the expansion of a banana plantation.

Members of this new alliance plan to continue their tree-blessing activities in other parts of the

BELOW: a monk paddles a dug-out canoe on the Areng River. If the dam across the river goes ahead, it will flood about 20,000 hectares of farmland and forest along the river's valley





Cardamom Mountains. They've started blessing and cataloguing the major trees in the Areng Valley as part of a 'sponsor a tree' project, the proceeds of which go to the local temple and primary school.

People in the area traditionally use communal forest land to practise rotating slash-and-burn agriculture. While it looks destructive, in practice it requires less land than settled fields and if the population pressure isn't too great, the forest eventually recovers.

Establishment of a modern land-titling system is eroding these communal values, sometimes with unforeseen consequences. The banana plantation's owner, Som Kim, had forested land measured as part of the land-titling scheme and was eagerly awaiting his official land title document. Keen to confirm his ownership, he had set about clearing the forest. 'I'll be increasing the plantation area on a yearly basis,' he says.

Som Kim isn't alone. Forest clearance to demonstrate ownership has accelerated since the government land-titling programme began. Four farmers in the Areng Valley explain that they cleared their forested plots to prepare for the surveyor's visit as they are keen to establish a basis for compensation if they are relocated.

TOURISM STRATEGY

Some, such as local monk Meas Korng, see ecotourism as the best way to protect the local forest. 'When nature is plentiful, we can then protect the environment, and income from nature tourism

can come into our commune, and improve villagers' lives,' he says.

In the Areng Valley, monks, students and farmers have been building facilities to host tourists at a local monastery. They hope that if they can make a success of it, it will provide a positive development incentive that will deter the government from pressing ahead with the dam.

Whatever the outcome of this struggle of development over tradition, widow Mork Pa is resolute in her determination to stay in her ancestral home in the valley. 'I will not be moving elsewhere,' she says. 'I'm living here until I die.'



ABOVE: a monk prays beside one of the blessed trees. It's hoped that the blessing will deter would-be loggers from clearing the remaining trees