Harvested to make Ecstasy, Cambodia's trees are felled one by one

International drug trade drives illicit safrole-oil factories deep in the Cardamom mountains.

Sam Campbell August 30, 2009 08:58 Updated May 30, 2010 13:05



A Cambodian ranger stands atop a wrecked cauldron from a safrole-oil factory in the western Cardamom mountains. According to the U.N. Office on Drugs and Crime, some of the world's largest clandestine safrole-oil factories, which produce a chemical used to make the drug Ecstasy, have been found and dismantled in Southeast Asia. (Fauna and Flora International)

PHNOM PENH, Cambodia — The pulse of dance-club music plays like a jungle beat, as thumping bass notes flirt with flashing lights, liquor and ecstasy of the pharmaceutical kind.

Miles and miles away, a little-known multi-billion dollar battle is playing out in the remote wilderness of Cambodia, linking the club scene to the jungle in a more nefarious way.

Clandestine factories deep in the Cardamom Mountains of western Cambodia are producing safrole oil — also known as sassafras oil — the main ingredient in the party drug Ecstasy.

The recreational drug produces a euphoria its users say is so good even yawning is unparalleled while under its influence. But this euphoria is not without its downside — and not just the toll it takes on the brain, which at least one animal study shows can still be detected seven years from the time of use.



An illicit safrole-oil factory deep in the Cambodian rainforest. (Tim Wood/Fauna and Flora International)

There is a growing, and perhaps just as deadly, price being paid by the local environment. Trees containing the viscous, fragrant, safrole oil are felled during the manufacturing process. Their oil-rich roots are mechanically shredded and boiled in large cauldrons. The resulting mixture is then distilled over fires that require enormous quantities of firewood to fuel them.

Safrole oil manufacturing is a big business, and as a result, severe deforestation and erosion scar the mountainous areas around the factories. The ramshackle, jury-rigged distilleries are perilous at best, and explosions are not unknown. Nearby streams that provide water for processing are soon fouled by factory waste, their delicate ecosystems poisoned. Even the oil itself is carcinogenic.

Though small-scale production of safrole oil for traditional remedies has been going on for centuries in Cambodia, the industrial production of oil destined for the narcotics trade has been ebbing and flowing since the late 1990s. In recent years, authorities have taken action against the safrole industry with some recent high-profile raids highlighting the issue.

A June 12, 2009 raid, led jointly by conservation <u>NGO Fauna and Flora International</u> and the Cambodian authorities, netted 142 barrels containing 5.7 tons of sassafras oil. Seized from a secluded house in the isolated village of O' Kambou in the western Cardamom mountains, the haul could have produced 44 million tablets of Ecstasy with a total street value of \$1.2 billion.

Most safrole oil distilleries are found in the Phnom Samkos Wildlife Sanctuary, which is located in the Cardamoms and is where the majority of oil-bearing trees remain, according to FFI.



A safrole-oil factory in the western Cardamoms. (Tim Wood/Fauna and Flora International)

FFI and the Cambodian authorities have an ongoing cooperation. They began putting pressure on the industry in 2004, although a December 2008 investigation showed that production had again surged. Aerial flyovers around that time revealed 16 factories in operation. Subsequent raids have now reduced that number to four, said FFI Wildlife Sanctuary Technical Advisor Tim Wood. At the height of the industry in 2006, he added, there were at least 75 distilleries in the area.

In June 2008, 1,278 barrels of sassafras oil were destroyed in Pursat province by Australian police, environmental NGOs and Cambodian authorities. Tim Morris, Australian federal police assistant commissioner, said the haul would have produced an estimated 245 million Ecstasy tablets with a street value of \$7.6 billion.

The western <u>Cardamoms</u> are part of southeast Asia's largest mainland contiguous rainforest and serve as the last refuge for more than 80 of the world's most threatened species, including

Asian elephant, Indochinese tiger and Siamese crocodile, according to FFI. Safrole oil, which is also used in the production of cosmetics and in the traditional Khmer remedies, is produced from the aromatic oil of a tree known in Khmer as Mreah prew phnom, which experts think is Cinnamomum parthenoxylon. The species is generally considered rare, and in Vietnam, it is classified as critically endangered. It has no common name in English and no one knows how many of the trees are left in the world.



Cambodian rangers at work dismantling an safrole-oil factory in the Cardamom mountains. (Tim Wood/Fauna and Flora International)

Four Mreah prew phnom trees are needed to produce a single, 40-gallon barrel of safrole oil. An additional six trees of lesser value are felled to use as firewood in the processing of a single Mreah prew phnom tree.

Secrecy and geography conspire to keep the illicit safrole-oil trade under wraps. Oil is lugged out by human mules, often over many miles of punishing jungle terrain, to roads where it is smuggled through to Thailand or Vietnam. One factory worker, who requested anonymity, called the back-breaking work "so hard we wanted to die."

Poverty-stricken recruits are paid \$25 per month plus cigarettes, the worker said, and often have no idea of the oil's true value or purpose. Once out of Cambodia, high-tech laboratories purify the sassafras oil and produce tablets of Ecstasy.

FFI's Tim Wood says the business is run by highly organized trans-national crime syndicates. The same shadowy syndicates are thought to be involved in human and wildlife trafficking, drug smuggling and the illegal weapons trade.

Experts say Vietnamese criminals moved their operations to Cambodia over the past decade after ravaging Vietnam's forests, essentially clearing them of Mreah prew phnom trees. Cambodian authorities have identified a well-connected ethnic Vietnamese kingpin at work in Cambodia, but so far he has eluded arrest, according to FFI.



The aftermath of a raid on a safrole-oil factory in the western Cardamoms. (Fauna and Flora International)

Teams of local rangers have closed dozens of safrole oil factories. Chap Siet is one such ranger, who has worked in the Phnom Samkos Wildlife Sanctuary for the last 10 years. He says he thinks about future generations and feels compelled to protect Cambodia's natural resources.

"Currently these natural resources are threatened by people who have power. These powerful people collude with offenders to destroy natural resources through wildlife poaching, illegal logging, land grabbing, and Mreah prew phnom oil production within the protected areas," he said.

Chap Siet said he faces many difficulties patroling the forests.

"We often patrol in heavy rain and we suffer from many diseases such as malaria and typhoid. There is a shortage of patrol equipment and we need more rangers," he said.

In a post-conflict country showing the scars of war, taking on the safrole mafia is certainly not for the faint of heart.

"Sassafras processing plants are frequently guarded by armed men and even booby-trapped with antipersonnel mines," said David Bradfield, manager of the Cardamom Mountains Wildlife Sanctuary Project, which is overseen by FFI.



Cambodian rangers stand with drums full of safrole oil that they seized from an illicit distillery deep in the Cambodian rainforest in June 2009. The seizure totalled 142 drums containing 5.7 tons of safrole oil, which could have made a total of 44 million tablets of ecstasy with a street value of \$1.2 billion, according to conservation NGO Fauna and Flora International (Tim Wood/FFI)

In March, a wildlife sanctuary ranger was killed. At that time, Environment Minister Mok Mareth pledged the government's dedication to preserving natural resources, though the high

demand for the illicit substance continues to drive the market. According to the 2009 U.N. Office on Drugs and Crime World Drug Report, somewhere between 72 and 137 metric tons of Ecstasy were produced globally in 2007, the most recent year from which they have compiled data. It's hard to say how much of that was produced in Southeast Asia, let alone Cambodia, but the UNODC does say that the stabilization of production in developed countries, like the U.S., has led to a spike in production in developing countries, many of

which can be found in Southeast Asia. Some of the world's largest clandestine factories were found and dismantled in that region, they reported.

"This development is of concern as it relates to the potential for future growth, given that many of these countries are emerging economies with growing middle-classes that may represent lucrative new markets for 'ecstasy,'" a UNODC report said.

UNODC also estimates that between 11 and 23.5 million people worldwide used Ecstasy at least once in 2007. Of that number, between 2.3 and 6 million were in East and Southeast Asia.