

Boshe village in China's Guangdong province (population 14,000) had many of the elements necessary to be China's largest methamphetamine factory.

Corrupt local officials, an impenetrable Chaozhou local dialect, a village clan system so tight that families not connected with the drug syndicates were left to guess why a town where a farmer can earn just 700 yuan (£70) a month was filling up with luxury cars.

Even so, there could be little doubt what was going on behind the crudely welded grille doors of scores of hamlets in the narrow streets of the scrappy provincial town.

The operation, according to police estimates, involved a fifth of the population, produced so much in the way of noxious waste that it had poisoned the local fields and pulled so much electricity off the grid that many of the meth factories had their own generators.

When 3000 police successfully raided the town in late December (earlier attempts had been met with resident roadblocks, homemade weapons and the acid used in production of the drugs hurled from the rooftops) they uncovered a prodigious operation.

Three tons of methamphetamine worth an estimated £142 million were seized from 77 clandestine meth laboratories, 182 arrests were made including the town's Communist Party boss Cai Dongjia and 13 other party officials.

Police said the village – predictably dubbed China's version of Breaking Bad – was supplying a third of China's market in crystal meth; now the second most used drug in China after heroin.

In a town where almost all the surnames are Cai, keeping the neighbourhood secret hermetically sealed from outsiders and the authorities had allowed it to operate as a massive meth lab for years.

"Basically this is a family clan business, otherwise the meth industry would not have been able to grow so quickly in the past few years," the dean of the Faculty of Law at Chongqing University, Professor Chen Zhonglin, said. "The tight family connections made the anti-drug operations harder."

According to one local, who said police estimates of the extent of the network were exaggerated, the syndicates were even closed to those within the village.

"Only those family members or relatives of the ringleaders have the chance to join them," he said.

The coastal area between Hong Kong and Guangdong's Shantou has been associated with drug smuggling since the Opium Wars of the mid-19th century, its sheltered bays and islands giving it perfect access to the South China Sea.

In the early 1980s, the area was awash with surplus weapons from the Sino-Vietnamese war that made their way from Guangxi to eastern Guangdong. By the late 1990s the province's Chaonan

district, a centre for paper and printing plants, had become the banknote counterfeiting capital of the world.

With all the elements necessary for the establishment of a successful large-scale drugs operation – weapons and access to fast and often counterfeit money to purchase precursor chemicals, pay bribes and purchase other hardware – Boshe village seemed to be simply diversifying the industrial base of a region well known for poverty and crime.

Professor Karen Laidler, an analyst in illegal drug trends at the University of Hong Kong, said the 'Breaking Bad' label, with its image of small-scale cellar operations, understates the reality of China's increasingly internationalized illegal drugs operations.

"China has been understood by the UN and many other organisations as a country where the precursor chemical ephedrine was quite prevalent and was being exported to other countries for the manufacturing of various amphetamine type drugs," Laidler said.

"China did respond to those concerns and implemented a number of laws in relation to the control and regulation of ephedrine. However, it's difficult to say how much is going and how much is coming in terms of precursor chemicals.

"The manufacturing in Guangdong? I suspect that much of that was for export."

Hong Kong, she said, on a U.S. blacklist for the transit of heroin throughout the 1970s and 1980s until

it was lifted in the 1990s, was no longer necessarily a gateway for drugs manufactured in China.

"The transit routes are not forced to go through Hong Kong any longer – there are many large ports in China where drugs can be imported and exported quite easily."

Since 2012, China's Food and Drug Administration (CFDA) has restricted the retail sale of ephedrine-containing overthe-counter drugs, prohibiting online sales and requiring retail pharmacies to check and record the ID of consumers of drugs containing ephedrine.

Nevertheless, state media alleged that some of the precursor chemicals found in the Boshe raid had been extracted from Contac, a popular cold medicine produced by the beleaguered British drug maker GlaxoSmithKline (GSK) already under scrutiny in China – where four of its executives are being detained – over bribery charges.

Analysts, however, doubt that the teams of students allegedly employed by the syndicates to extract the pseudoephedrine from capsules could have produced enough of the chemical to account for the 23 tonnes of raw materials seized in the raid.

According to the United Nations Office on Drugs and Crime (UNODC), precursor chemical seizures increased substantially in 2012.

The number of substances diverted for illicit drug manufacture increased from 20 controlled substances in 2011 (primarily ephedrine and hydroxylamine hydrochloride) to 40 uncontrolled substances in 2012, including pharmaceutical preparations such as ethyl phenylacetate

In 2012, 1,128 criminal cases were reported in China that involved the diversion of precursor chemicals and police seized a total of 5,824 metric tons of various substances used in the manufacture of illicit drugs.

While the numbers represent a significant increase on the 1,834 metric tons of precursor chemicals seized in 2011, the US State Department says low-level corruption and bureaucracy remain a problem in China.

"China's collaborative law enforcement efforts are hindered by cumbersome internal approval processes that often limit direct access by U.S. law enforcement officials to local counterparts at provincial Public Security Bureaus," the US State Department said.

China has one of the world's largest chemical industries, producing large quantities of precursor chemicals, such as acetic anhydride,

potassium permanganate and piperonylmethylketone (PMK). It is the fifth largest exporter of ephedrine and the third largest exporter of pseudoephedrine.

The sheer scale of China's chemical industry, with an estimated 80,000 individual chemical companies in 2009, presents widespread opportunities for chemical diversion. With many of these companies located in Guangdong province – and close to some of China's busiest ports – the location of illicit methamphetamine factories in the region makes sense.

Most precursor chemicals seized in Mexico and Central America destined for illegal production of methamphetamine, according to the U.S. State Department, were legally exported from China and diverted en route.

In a further evidence of the increasing transnational nature of Guangdong province's "Breaking Bad" factories, just a week after the Boshe raid, Philippine anti-drug agents acting on U.S. intelligence smashed a meth lab and seized 84 kilos of methamphetamine in a raid on a cock-fighting farm south of Manila.

Arrested in the raid were three known affiliates of Mexico's Sinaloa drug cartel, one of the most powerful and notorious drug syndicates in the world. Named after the state on Mexico's Pacific Coast where it was formed in 1989, the cartel's heartland extends from Sinaloa, to Mexico's Durango and Chihuahua states, but it is known to operate in locations as diverse as Russia, Australia and Sierra Leone.

"The Mexicans are already here," Philippines drug task force chief Bartolome Tobias said, adding that they were getting help from "Chinese drug syndicates".

The Mexican attorney general's office last year released a report that named Hong Kong triad groups 14K and Sun Yee On as the main suspects in the supply of ephedrine and ethyl phenylacetate to Mexican cartels feeding into the lucrative American market for methamphetamine.

Prior to 2012, Chinese police mostly dismantled small-scale operators, but in September 2012, police raided their first industrial-scale facility in Hunan, seizing 660kg of crystal meth and 19.8 metric tons of unidentified materials used in the manufacture of the drug.

Among the 14 people arrested in the raid, one was a Mexican national, a development which analysts say was the first indication that Mexican transnational syndicates were working closely with the Chinese to produce crystal meth.

For those working in the pharmaceutical industry in Asia, the blurred line between illicit drugs and the pharmaceutical industry remains a point of contention. Developers are continually searching for alternatives to easily extracted precursor chemicals found in many common products.

One Asia regional pharmaceutical executive who spoke to Druglink said the illegal drugs industry in South East Asia was now so big that it had the capacity to skew the marketing spreadsheets of some of the region's largest pharmaceutical companies.

As recently as six years ago, he said, retail sales of certain products containing ephedrine, pseudoephedrine and codeine would show massive unexplained spikes in their sales.

"Of course, the immediate reaction of pharma marketers was that they wanted a slice of the action," he joked. "But since then, the FDA has cracked down on it by issuing quotas. There is, of course, a medical need for these products so they monitored the sales, especially out of hospitals, of these products.

"When they could see a big volume it rang alarm bells. I think it's true to say that whenever a product sells a lot other people in the industry are always looking at it and wondering why, particularly when there are strong sales for something curious like Contac.

"When one product is growing at twice or three times the rate of other similar products then that's a red flag. For instance there was a product in Thailand that was being used in the manufacture of 'yaba' – it was getting strong sales without any marketing at all and the authorities cracked down on it."

"It might make it attractive to marketers at first blush, but you don't have to be too bright to work out what's happening."

He said that recent regulations applied in Thailand meant that the line between big pharma and illegal drug manufacturers was becoming more distinct.

"We occupy different worlds. These operators in China – if they're not able to get these products off the shelf, extract the active ingredients they need and convert it into methamphetamine – they must be making the raw materials themselves and I guess that means a much more vertically integrated model of criminality."

■ Peter Shadbolt is a freelance journalist