Illegal Opium Production in the Mishmi Hills of Arunachal Pradesh, India*

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Introduction

Illegal opium poppy (*Papaver somniferum* L.) cultivation in India is likely to have been greatly underestimated for years. This is what data on the forced eradication of illegal opium poppy crops in the whole of India tend to show, as the eradication of illegally cultivated areas often surpasses legally cultivated areas. Recent estimates of illegal cultivation in some parts of Arunachal Pradesh also confirm that India's illegal opium production is much larger than is usually acknowledged. The remote and isolated state of Arunachal Pradesh, located in northeast India, on the borders of Bhutan, China (Tibet) and Burma, is now known to be an important source of illegal opium. Illegal poppy cultivation has long existed there, but is likely to have largely increased in the last decade, especially in the northernmost part of the state, in the Anjaw and Lohit districts.

In this article I first look at the absolute and relative importance of India's illegal opium poppy cultivation,which could actually surpass the legal cultivation of opium poppy. The state of Arunachal Pradesh serves as an example of how important illegal opium production is in India and how it is largely ignored. This is all the more important because it shows that India is probably one of the world's major illegal opium producers, even without taking into account the diversion from legal cultivation (which is likely to have been overestimated). It also matters because it shows that, despite what is widely assumed, the diversion from legal cultivation is unlikely to be the main problem faced by India. Last but not least, a better understanding of what is taking place in Arunachal Pradesh also matters because the economic underdevelopment of the state and of some of its poorest inhabitants is one of the causes of illegal opium production in the state. If successful counter-narcotic policies and actions are to be designed

* The author wishes to acknowledge the comments of Ambika Aiyadurai, Romesh Bhattacharji, David Mansfield and Bertil Lintner on earlier drafts of this text.

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and implemented, the history and context of illegal opium production in Arunachal Pradesh must be better understood.

The rather understudied history of opium production in Assam and in Arunachal Pradesh, the state that was carved out of Assam between 1974 and 1987, will then be looked at in the greatest detail possible. We will then be able to address the role played by the Mishmi people in contemporary illegal opium production in Arunachal Pradesh. It must be made clear from the onset that other people than the Mishmi resort to illegal opium production in different areas of Arunachal Pradesh and that this paper only focuses on the Mishmi because the only existing data on opium production is for the districts that are inhabited by the Mishmi (INSA 2010). Explaining the history and economic strategies of the Mishmi is a necessary prerequisite to understanding their increasing resort to illegal opium production. When and why did the Mishmi start producing opium and what are the various drivers of their growing dependency on the illegal opium economy? Those are the questions that are asked in this paper, even if the answers are still limited at this stage.

Arunachal Pradesh has been subject to very little scholarly attention, most Indian scholars regard it as peripheral and very few foreign scholars having been allowed to enter this region[2]. As a consequence, Arunachal Pradesh is one of the least studied states of India and very little is known about the current illegal opium production there and about the history and dynamics of its development. This article is a first attempt to bring light upon this largely ignored phenomenon.

This research was conducted over three years and employed a mixed-methods approach to data collection. The available literature on Arunachal Pradesh and on opium production in this region was consulted: books, academic papers and unpublished reports were resorted to in order to get a better understanding of when, why, where, how and to what extent opium production developed in such a remote corner of Asia. The paucity of data made field research imperative and two field trips were undertaken

2 As explained in greater details by the School of Asian and African Studies (SOAS) on the Web page dedicated to its Arunachal-focused 'Tribal Transitions' programme: http://www.soas.ac.uk/tribaltransitions/description/ (page retrieved on 10 January 2011). However, there are dozens of books of variable quality that have been published by Indian authors in the last 20 years and a few PhD students were doing some fieldwork in Arunachal in 2012-2014.

during the opium harvesting seasons of January-February 2012 and 2014. A qualitative study was carried out through interviews and unstructured discussions with NGO members, social workers, and opium farmers in the two districts of Arunachal Pradesh where illegal opium poppy cultivation is widespread (Lohit and Anjaw). Visits to opium-producing villages were planned in advance with the help of local contacts who were concerned about the area's growing drug issues (although a few villages were visited on a random basis as opium poppy cultivation is widespread and very noticeable). Villages were selected according to their location (both in the plains and in the hills) and distance from the main roads. Interviews and discussions were carried out in English and, with the help of guides and translators, in Hindi and in Mishmi (mostly in Digaru Mishmi and Miju Mishmi). Questions were asked about the history of opium production and consumption, the cultural and economic importance of opium, the economic drivers and benefits of opium production, the risks of illegally producing opium, poppy cultivation, opium harvesting and production techniques, and also about food security, legal cash crops, non-farm employment, game and other forest products, government aid, corruption, etc. It must be stressed here that, for obvious ethical and security-related reasons, the locations where personal observations were made, and the persons that were interviewed, are not specified in this paper.

The world's only legal opium exporter and a major illegal producer?

At the turn of the twenty-first century, at least ten countries illegally produced opium, while nineteen countries legally grew opium poppies for the pharmaceutical industry under strict state control (Mansfield 2001, INCB 2012: part 3). Afghanistan has been the leading illegal opium producer since at least 1991, when it reportedly surpassed Burma (respectively, according to the UN, with estimates of 1,980 and 1,728 tonnes of opium: see Chouvy (2010) for further developments) and has since produced a record-high estimate of 8,200 tonnes of opium (2007) (UNODC 2007). India, where the opium poppy has been cultivated since at least the tenth century, where opium production developed throughout the northern part of the country in the sixteenth century (under the rule of the Mughal Emperor Akbar), and where the British controlled the production and trade after 1773, is now one of the world's rare legal opium producers and the world's only legal opium exporter. Three countries other than

India (the People's Republic of China, the Democratic Republic of Korea, and Japan) legally produce opium, although only for their own domestic markets and in much smaller quantities than India. All other legal opiates exporters, including Turkey, extract the alkaloids directly from 'poppy straw' (Concentrate of Poppy Straw), that is, from the plant itself, not from opium, which is actually the dried latex obtained from incising the opium poppy's capsules, (Chouvy 2006).

Despite all the precautions taken by the Indian central government, a diversion from the legal to the illegal market, where opium can fetch prices up to four to five times higher than the minimum government price, is clearly taking place. Most observers agree that between 20-30% of the Indian legal opium crop is diverted into illegal channels, a rate that some consider to be very conservative (Charles 2004). According to some authors, the diversion from legal cultivation makes India the world's largest illegal opium producer: 'In contrast to all other illicit producers, India owes the latter distinction not to blatantly illicit cultivation but to diversion from licit cultivation' (Paoli et al. 2009: 159).

The above comment was made after 6,322 hectares of illegally cultivated opium poppies were eradicated in West Bengal alone in 2007, out of a total 8,000 hectares eradicated throughout the country, that is, more than the 5,913 hectares harvested under license in the whole of the country in 2006-2007 (in Madhya Pradesh, Rajasthan, and Uttar Pradesh) (GOI 2006: 98, INCSR 2011: India, UNODC 2011a: 59). In 2005, 439 tons of opium (compared to 1,061 in 2004) were legally produced in India and at least 4,620 tons were produced illegally in the world (GOI 2006: 113-114, UNODC 2006: 57). While opiates continue to be used worldwide, legally and illegally, as painkillers or even as panaceas, both by allopathic medicine and by non-allopathic medicines, most of the world's opium is still produced illegally and fuels a thriving illegal drugs industry and market of morphine and heroin.

The Indian Narcotics Control Bureau (NCB, India's counter-narcotics enforcement agency) and the Central Bureau of Narcotics (CBN, mainly concerned with the supervision over legal opium poppy cultivation) officially conduct eradication operations in the states of Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Maharashtra, Manipur, Uttarakhand and West Bengal (NCB 2012). In 2010, when 739 tons of opium were legally produced out of

12,237 hectares (average yield of 60 kg/ha paid between 808 and 1,320 INR/kg to the cultivators), about 3,000 hectares of illegally grown opium poppies were eradicated nationwide, which is much less than in 2007. In fact, eradication efforts seem to vary from year to year since about 5,800 hectares were officially eradicated in 2011 and only 1,250 hectares were reportedly cut down in 2012 (NCB 2012).

Oddly, Indian official estimates of the extent of illegal opium poppy cultivation in India never include the northeastern states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura, where large expanses of opium poppies can be found. In fact, no estimate exists of illegal opium poppy cultivation in the whole of the Northeast, which means that no satisfactory overall estimate of illegal cultivation in India exists. Neither India nor the United Nations Office on Drugs and Crime, which is the UN body supporting illegal drugs surveys in various countries, offer such an estimate. In the end, both the global estimate that is proposed every year by the UNODC, and the whole issue of diversion from legal opium production must be reconsidered.

Forced eradication rarely amounts to more than a small fraction of illegally cultivated areas, most often around 10%. In fact, as shown by the importance of forced eradication in 2007, and by the recent estimate of illegal cultivation in some parts of Arunachal Pradesh, as we will see, illegal opium poppy cultivation in India is likely to have been greatly underestimated for years (Chouvy 2006, 2010). Indeed, the 2012 International Narcotics Control Strategy Report (INCSR) of the US State Department mentions that the 'GOI estimates that half of India's heroin consumption and all of India's opium consumption (70 tons) were met by domestic supply' on a minimum of 7,500 hectares of illegal opium poppy cultivation (US Department of State 2012, UNODC 2011b: 14). It also explains that 'informed observers of the Indian scene downplay the role of diversion of opium from licit production to the illicit domestic market' (US Department of State 2012). What is more, a 2011 UNODC report on Afghanistan states that in India, 'the estimated quantity of licitly produced opium diverted from licit to illicit use is very limited, or maybe even non-existent' and suggests that some fifteen tons of heroin – or three percent of global supply – are illegally produced there (UNODC 2011b: 64-65). Depending on the real scope of its illegal opium production, India could well have become one of the world's largest illegal opium producers with

diversion from legal cultivation being a smaller problem than is often considered. Yet, the fact that legal cultivation largely decreased between the 1990s or early 2000s (32,085 hectares in 2000) and the late 2000s (5,859 hectares in 2012) might explain the increase in illegal opium production. Indeed, the diversion of legal opium to the illegal market is also likely to have decreased and had to be compensated for (NCB 2012, Romesh Bhattacharji, personal communication, 17 July 2014).

Illegal opium production in Arunachal Pradesh has been largely ignored by recent international publications, including the United Nations' annual World Drug Reports. This is despite the fact that illegal poppy cultivation has long existed there and has reportedly largely increased in the last decade. It is puzzling that, while absolutely no opium (and no heroin) was seized in Arunachal Pradesh between April 2010 and March 2013, 180 hectares of opium poppies were eradicated there in 2012, compared to 364 hectares in 2011. However, opium was seized in neighbouring Manipur (107 kilogrammes during 2010-2013) and sizeable opium poppy crops were also eradicated there in 2012 (507 hectares) (NCB 2011, 2012, 2013). While there are no official estimates of opium poppy cultivation in either Arunachal or Manipur, an independent estimate of cultivation was conducted in Arunachal in 2010.

An unpublished report by the Institute of Narcotics Studies and Analysis (INSA), an independent Indian NGO set up and headed by Romesh Bhattacharji, former Narcotics Commissioner of India from July 1996 to December 2006, estimated that 16,441 hectares of opium poppies were illegally cultivated in two districts (Anjaw and Lohit) of eastern Arunachal Pradesh in 2010 (INSA 2010: 8). According to the report, opium poppy cultivation also takes place in four other districts (Upper Siang, East Siang, Changlang, Tirap) that were not surveyed (INSA 2010: 18). This necessarily very rough estimate (since the human and technical means as well as the methodology suffer from several shortcomings) was based on a seven-month field survey carried out by about thirty surveyors who visited 458 villages in the Anjaw and Lohit districts, where it was estimated that 3,460 hectares and 12,981 hectares were cultivated, respectively. Yet no estimate of the opium output was provided in the report.

It is worth noting here that in Arunachal Pradesh almost all of the opium is harvested by using the unusual and rare 'opium cloth method', which complicates yield estimates: poppy capsules are lanced with home-

made tools (one or a few razor blades mounted on a bamboo stick) and the exuding opium is collected on a cloth (personal observations, 2014). The impregnated cloth is then sold as it is. According to the report, about 93% of the surveyed villages resorted to opium poppy cultivation and 92% of these villages had opium addicts. In the mountainous Anjaw district, 82% of the poppy fields were reportedly smaller than 1 hectare, while in the Lohit district, where large river beds allow for larger fields (especially on the Lohit River bed and its many islands), 52% of poppy fields were said to be below one hectare and 43% of a size comprised between one and five hectares (INSA 2010: 43).

History of opium production and trade in former Assam

It is not known when opium production started in Assam and in current Arunachal Pradesh[3]. Some suggest that the opium poppy was introduced from Yunnan by way of Chinese tribes, as most likely happened in mainland Southeast Asia (Assamese historian S.K. Bhuyan, quoted by Kawal Deep Kour 2012, Chouvy 2010). Such a possibility is substantiated by the Tibetan and Ahom chronicles that mention many tribes from Arunachal, including the Mishmi, and provide great detail about trading networks that long existed between Assam, Tibet, and China (Blackburn 2003, Deep Kour 2012). It is not known if opium production started in the northernmost areas of Assam, in Arunachal Pradesh, or if it first took place farther south in present-day Assam, before it spread north. Yet, the authors of the 1924 Report of the Assam Opium Enquiry Committee seem to imply that both opium consumption and production spread from the Assamese towards the hill tribes in the north when they write that 'the habit has spread among the hardy and virile races of the Hills of Assam' (Sharma & Sharma

3 When the Ahom Kingdom (1128-1826), set in the Brahmaputra valley in Assam, was overruled by the Burmese in 1821, the threat to the East India Company's nearby Bengal territories started the First Anglo-Burmese War (1824-1826). The British victory led to the Treaty of Yandabo that gave Assam and Manipur, among other Burmese-held territories, to British India. The Assam state as it is known now has been part of the Bengal Presidency, the Assam and East Bengal Province (1905-1911) and the Assam Province (1912-1947). Assam became a constituent state of independent India in 1947 but was later divided in several states (Nagaland in 1963, Meghalaya in 1972) and Union Territories (Arunachal Pradesh, the former North-East Frontier Agency (NEFA), and Mizoram in 1972). Arunachal Pradesh and Mizoram became full-fledged states of the Indian Union in 1987.

2006: 174). They quote the 1919-20 Assam Excise Report according to which 'the opium habit is excessive among the Turaon and Miju Mishmis; and Miris, Khamtis and Singphos are saturated' (Sharma & Sharma 2006: 174).

In any case, according to the Assamese nobleman and former tea cultivator popularly known as Maniram Dewan, opium poppy cultivation was first undertaken at Beltola, near Guwahati, after having been introduced from Bengal during the reign of the Ahom monarch Lakshmi Singha (1769-1780) (Deep Kour 2012). This is a long time before the first British explorer entered the Mishmi Hills (first mentioned in 1825 by Lieutenant Burlton) and the question of when and where the opium poppy was introduced in Arunachal Pradesh still remains as controversial as are the origins and migration routes of the tribes that now inhabit the state. Kawal Deep Kour stresses that 'only conjectures [...] surround the introduction of opium in Assam' and Stuart Blackburn explains that 'no one knows, with any certainty, when or by what route the people of Arunachal Pradesh came to their current homelands', something that has not changed since William Robinson's first attempted history of the region (1841) that refers to the 'dark veil which conceals the origin of the tribes' (Deep Kour 2012: 11, Blackburn 2003: 15, Robinson quoted in Blackburn: 15).

Yet, according to the 1924 Report of the Assam Opium Enquiry Committee, and despite what is often argued[4], there is no mention in the daily records of the Ahom kings of opium being given as gift between the Mughal ruler of India and the Ahom kings (Sharma & Sharma 2006: 161). Yet, according to some, Rajput soldiers fighting for the Mughals would have initiated the Assamese to opium in the late seventeenth century and 'an account from the *satra* from the period between 1449 and 1568 describes opium eating, smoking and drinking as prohibited, and devotees who indulged subject to punishment' (Wright 2014:82). In any case, the fact that opium was consumed at the Ahom court prior to the British annexation of Assam is made clear by Captain Welsh's description of Ahom king Gaurinath Singha's opium consumption in 1792 (Sharma &

4 'It is said that Rajput General Ram Singh, Raja of Amber, who led Aurangzeb's army into Assam in 1667 gave gifts and introduced Opium to Ahom Kings' (Hussein, 2004: 142). Also: 'Credence to the theory that the Mughal incursions in Assam had facilitated the introduction of opium in Assam is contained in the *Buranjis,* which contains references to gifts from the *Paadshah* (the Mughal Emperor of Delhi) that included *afing* (opium), among other articles' (Deep Kour 2012). See also Sharma & Sharma (2006: 55) for what seems to be Deep Kour's source.

Sharma 2006: 162). Welsh also reported on the 'great quantity of opium' that was then produced and used in Lower Assam (Sharma 2011: 62). What seems to be agreed upon by many is the essential roles that the British and the Marwaris played in developing the opium economy in Assam.

The British fostered the capitalist transformation of Assam by developing tea cultivation, coal and oil production, bringing immigrant workers and merchants into a state where land was plentiful and labour was scarce, and also where there was no trading class of its own. The Marwaris – strictly speaking, a commercial caste from Rajasthan – came to Assam along with the British and 'played a major role in Assam's transition in the nineteenth century from a largely non-monetized economy to a market economy' (Baruah 1999: 61).

Until then, rice had been grown by all and almost only for subsistence. But with the advent of a cash-based economy, peasants needed marketable products and cash crops. Peasants initially turned to producing mustard oil to pay colonial taxes and buy goods. But 'mustard as a marketable crop was speedily overtaken by opium' and 'migrant commodity traders, known as Kayas or Marwaris, aided this changeover by providing cash advances to peasants only if they grew opium' (Sharma 2011: 62). The Marwaris were not only traders but also credit providers to hill and plain villagers, often buying crops and crafts with advances against takings (as is often the case in Afghanistan, Burma and Laos). Opium provided a huge profit, with some Marwaris settling in the hills and mountains of Arunachal Pradesh (Baruah 1999: 61). By 1852, more than 1,200 hectares of opium poppies were cultivated in Nagaon, then the main opium-producing district (Sharma 2011: 63).

While the British colonial system introduced a monetised economy, notably through the colonial revenue policies based on the perception of taxes and duties, the Marwaris, who followed the British in Northeast India, quickly 'monopolized practically the whole trade of the Assam Valley', according to a 1906 government report (quoted in Baruah 1999: 61). In the nineteenth century, the 'Marwaris exchanged rubber, wax, hand-woven clothes, elephant tusks, rhino horns, and medicinal plants for rice, salt, opium, cloth, cotton garments, and so forth with the "tribes" of present-day Arunachal Pradesh' (Baruah 1999: 61).

A crucial factor that can explain why opium consumption and, subsequently, production reached levels unknown anywhere else in India

is the fact that the British did not impose a government monopoly on opium production and sale as they had done in the rest of India after the All-India Opium Act of 1878. As a result, opium production and consumption developed unabated in Assam. Yet when the British government felt the urge to lessen opium production in Assam while at the same time increasing state revenues, it chose not to tax local production for fear of popular resentment. The solution was found with the 'policy of drift': the introduction of higher quality government opium from Bihar (*abkari* – or excise – opium) at a much cheaper price than the lesser quality Assamese opium (*kani*) in order to undersell the indigenous product. Abkari opium was first introduced in Assam in 1844-45 at half to one-third of the kani price, and the system was extended to the whole of Assam in 1850. Opium consumption reached unprecedented heights, but the production and consumption of kani was reportedly left unaffected (Goswami 1987: 52-73). In Ashley Wright's words, 'in Assam, a pragmatic desire to maintain social stability and avoid violence directed at the colonial state proved to be the decisive factor in opium policy decisions' (2014: 81).

Commercial opium production began at the same time as commercial tea cultivation, and many Assamese peasants entered the cash economy by enrolling to work in the tea plantations. The fact that the Assamese were not allowed to own tea gardens most likely helped develop opium production as a cash crop. Hard work and poor wages rendered employment in tea plantations unattractive, and when it became clear that reliable labour was very difficult to obtain, 'British officials increasingly speculated that it was an innate indolence in Assam's people, perhaps a climatic or racial trait, which made laboring work so unpopular' (Sharma 2011: 63).

It was not long before 'the essentialist explanation of local indolence gained scientific and medicinal credence from the peasant's easy access to opium' (Sharma 2011: 63). Having blamed the locals' indolence on their opium consumption, the shortage of tea labourers could now be quickly addressed. Ignoring the economic reasons and the colonial revenue policies that drove peasants to produce opium, British officials, planters and missionaries first thought of raising taxes on local opium production but instead chose in 1861 to ban opium poppy cultivation completely in Assam, mostly in the hope that cash-strapped peasants would turn to tea plantation labour to purchase their much-needed opium (Sharma 2011: 65). After 1861, only abkari opium could be sold in Assam, and its price

had to be kept low so as not to encourage people to resume cultivation. By 1880, imported opium had become the most important contributor to state revenues (Sharma 2011: 158). As Jayeeta Sharma put it, 'opium sales to cash-strapped peasants helped to promote colonialism's two most important commodities, tea and opium' (Sharma 2011: 156). While local opium production never completely disappeared, consumption kept increasing, so that by 1920 the population of Assam, which formed a mere two percent of entire British India, consumed 13 percent of the total quantity of opium retailed through licensed vendors (Goswami 1987: 73).

Anti-opium campaigns by American Baptist missionaries in Assam and by Assamese students slowly developed, but no real prohibitionist policy existed before 1919, when the registration of opium consumers was extended to some frontier areas. The Non-Cooperation Movement of 1921 then materialised in Assam through a strong anti-opium sentiment, with calls for a struggle against the 'Imperialism of Opium'. In 1921 the Assam Legislative Council initiated a system of registration of consumers and strict rationing that was eventually imposed throughout the state in 1927 (Pakyntein 1958: 12-14). Then, on 15 April 1939, the Congress Coalition Government of Assam 'took a decisive and bold step by introducing the scheme of total prohibition of opium in the two sub-divisions of Dibrugarh and Sibsagar, which had the heaviest addiction' (Pakyntein 1958: 13). Yet, during the Second World War, the British reportedly substituted opium for wages and sometimes also for food to pay and feed the conscripted labour needed to construct the Ledo Road from Ledo, in Assam, to Kunming, in China (Guha 1977). Faced with opium trafficking from the rest of India, but also from Nepal, China, Tibet, and Burma, Assam passed its Opium Prohibition Act in 1947. Hopes were high, and the Excise Commissioner of Assam E.H. Pakyntein wrote in 1958 that it was his 'firm belief' that opium in Assam would be 'a thing of the past before long' (Pakyntein 1958: 14). While opium production has now almost completely disappeared from Assam, it has developed amongst some hill tribes of Arunachal Pradesh, especially since the early 2000s (personal observations, 2012 and 2014).

About the Mishmi

Most of the opium that is now produced in Arunachal Pradesh comes from the Lohit district where the Miju Mishmi are concentrated and predominantly involved in poppy cultivation. It also comes, although in

much smaller volumes, from the more mountainous Anjaw district that is mostly inhabited by the Digaru Mishmi. Opium poppy cultivation is also said to have recently spread into the Dibang Valley district where it is cultivated by Idu Mishmi (interviews with NGO workers, 2014). It must be stressed, though, that other ethnic groups, including the Khamti and the Singpho, resort to commercial opium production in the region (Lohit district) but apparently to a much lesser extent than the Mishmi (personal observations and interviews with opium farmers, 2012).

Almost exclusively found in Arunachal Pradesh (a few hundred are also found in China), the Mishmi are an ethnic group of the Tibeto-Burman stock (Tani subgroup) that comprises mainly three tribes, the Miju Mishmi (also known as Kaman Deng and estimated at 18,000 in India according to the 2001 census), the Idu Mishmi (also known as Idu Lhoba, and Chulikata or crop-haired Mishmi in Assam, and estimated at 11,000 in India), and the Digaru Mishmi (also known as Taraon and Darang Deng and estimated at 8,620 in India). The Mishmi occupy the north-eastern tip of central Arunachal Pradesh in the Dibang Valley and Lower Dibang Valley, and the Lohit and Anjaw districts. The Mishmi reportedly came from Burma. The Idu were the first to settle in present Arunachal Pradesh and are said to have been followed by the ancestors of the Digaru a little over five hundred years ago. Then came the Miju, reportedly from the Kachin country in Burma. The three tribes are ethnically related but are not linguistically similar, the lexical similarity being very low between the three idioms (the Miju Mishmi share a 7% lexical similarity with Idu Mishmi, and 10% with Digaru Mishmi)(Lewis 2009). The Mishmi were first mentioned by the British in 1825 by Lieutenant Burlton who described them as being 'very averse to receive strangers', something that his follower, Lieutenant Wilcox, confirmed when he had to hastily retreat from the Mishmi Hills in 1827 (Choudhury 1978: 45). Partly because, for both physical and political reasons, Arunachal Pradesh is difficult to access, very little has been written on the Mishmi and information about them is still scarce.

The Mishmi are traditionally part hunter-gatherers, part swidden agriculturalists, that is, they partly hunt game and collect plant foods and partly resort to slash and burn shifting cultivation, called *jhum* in northeastern India. The Mishmi traditionally sequence their crops, cultivating their main crops during the first year of a cleared swidden field.

They mostly grow maize, buckwheat, millet, yam, sweet potatoes, aroids, and *ahu* paddy, a local pre-monsoon dry variety of paddy suited to steep slopes. However, they can now cultivate up to nine varieties of paddy, from early maturing varieties (summer) to late maturing varieties (winter) including both rain-fed and irrigated varieties (personal observations and interviews with farmers, 2014). They also grow wheat, barley, soybeans, various pluses, tobacco and, increasingly, opium poppies (Choudhury 1978: 127, Bareh 2001b: 74-75). Some Mishmi, especially the Idu and the Miju, increasingly cultivate wet paddy in the valleys, and most notably on the Lohit River bed, where opium poppy cultivation actually also spreads fast (personal observations, 2012).

One can hypothesise that the economic underdevelopment and lack of opportunity that is said by some to tie villagers to non-timber forest products, especially wildlife hunting (Aiyadurai 2012), also explains the growth of illegal opium production in the region. Both hunting and poppy cultivation are traditional practices (Aiyadurai 2007, Elwin 1959, Fürer-Haimendorf 1962) that most likely offer economic alternatives to otherwise mostly resource-poor populations that are confronted with the monetisation of what used to be a barter economy. Interestingly, both activities have become illegal according to Indian national laws but are still undertaken by the Mishmi who view them as traditional and legitimate practices needed for various ceremonies. This, alongside poverty, greed and corruption, explain why the opium and hunting bans are hardly enforced (interviews with opium farmers and hunters, 2014).

Historically[5], the Mishmi are not reputed to be skilled agriculturists and they reportedly experience chronic food scarcity, and Mills reported that 'all early travelers report severe seasonal food shortages' (1952: 4, cf. Choudhury 1978: 127). Some authors, such as F. Kingdon Ward, even wrote, in 1929, upon coming back from two botanical expeditions in the Mishmi Hills, that the Taroan Mishmi (Digaru Mishmi) 'are grossly lazy and dislike cooly work', and that 'most of them—not all—take opium in excess'. The

5 It must be acknowledged that colonial ethnographers' descriptions often bordered on being racist. As stressed by Raile Rocky: 'Granted that such accounts are fairly comprehensive documentation of tribes and are invaluable but their writings in many ways are reflective of their biasness and euro centric valuation of people and societies so much so that it often borders on being racist. One cannot but notice the air of cultural supremacy in many of the colonial writings' (Rocky 2013: 33).

author stresses the fact that 'as every village and almost every hut grows its own crop, nothing is gained by carrying opium for payment' (Ward 1929). Mills wrote that 'Mishmi agriculture is the most primitive known to me in Assam', adding that it was 'not very long since the tribe were food-gatherers' (Mills 1952: 4). Tarun Bhattacharjee, who studied the Idu Mishmi, wrote that the 'Idus are a food-gathering tribe and agriculture as an occupation does not appeal to them much'. He explained that although each family has some land under cultivation, it 'barely meets their requirements' (quoted in Bareh 2001a: 184). Mills describes how, until the mid-twentieth century, maize and buckwheat were the staple crops in the Lohit valley, with barley and wheat in some of the higher valleys, and that very little rice was cultivated, except in the foothills (Mills 1952: 4).

Despite the fact that the tea bushes were reportedly discovered for the first time in India in the present Lohit district by a Singpho chief (Choudhury 1978: 131), the Mishmi are seemingly reluctant to cultivate tea, although they very much like the drink. In fact, black tea is systematically drunk when smoking opium (personal observations, 2012 and 2014). The Mishmi used to have one the largest external trade of the region, thereby supplementing 'their home-grown food by purchase to an exceptional extent': pods from the Himalayan musk deer, *Coptis teeta* Wall. (a medicinal herb with antimicrobial and anti-inflammatory properties, known as *mameera* in India), paper bark and aconite poison were exchanged with the Tibetans for clothing, salt, copper-ware and swords (Mills 1952: 5). However, things have changed and nowadays it is much harder to find *Coptis teeta* than opium, due in part to deforestation, overcollection, and low reproductive success (personal observations and interviews, 2012).

Opium production by the Mishmi

Poppy seeds are broadcast by the Mishmi in late October and November on the well-pulverised soil of new jhum. Opium (*kani* in Assamese, in Mishmi – Idu, Miju, and Digaru – as in most languages of Arunachal Pradesh) is harvested from ripe poppy capsules from February to April, depending on latitude and altitude. Opium is mostly collected by lancing the capsules with razor blades and by scraping the capsules with one's fingers. Capsules also can be rubbed off with small pieces of cloth (until impregnated with opium) most often made of nettle fiber, most likely from *Villebrunea integrifolia var. sylvatica* (Blume) Hook.f., commonly called wild rhea or,

in Assam, *ban rhea* (Hooker 1888: 590, Watt 1893: 238-243). Nettle cloth (called *tachaa* in Digaru) is no longer spun and woven to make clothes,[6] but only to store and sell opium (personal observations and interview with weaver, 2014). It is impregnated with opium at harvest (and subsequently called *kaning tabe* in Digaru) and then sold at is it, either shredded and incorporated into a smoking mixture (depending on the nature of the cloth), or soaked in water so that the opium can be retrieved and mixed with minced young banana leaf (*tekra* in Digaru). A bamboo water pipe of the bong type (*kaning bratyo* in Digaru) is then used to smoke the opium and banana leaf mixture (in nineteenth century Assam betel leaves were preferred), although opium can also be ingurgitated by mixing it with tea (personal observations and interviews with opium smokers, 2012 and 2014). The cloth processing method, a 'unique method' according to Kawal Deep Kour, most likely originated in Assam, where opium was traditionally ingurgitated (*kanikhowa*) or smoked (*kanipankhowa*) (Deep Kour 2012: 11). The same techniques are reportedly used in some areas of Burma's Sagaing Division and Kachin State bordering Nagaland and Arunachal, where opium is too wet to be harvested in a normal way (personal communications: Bertil Lintner, 11 March 2014, and Tom Kramer, 17 March 2014). Opium impregnated cloth is probably destined to be consumed locally, since export would likely prove difficult, although at least one case of international trafficking of opium cloth exists[7]. Not all the opium collected in the Mishmi Hills ends up on cloth, some is stored as a paste and allegedly sold to Indian merchants ('Marwaris') for the Burmese market (personal observations and interviews with opium farmers, 2014).

Opium poppy cultivation has long existed among the Mishmi but has increased manifold in the last decades, especially in the last few years. In the 1950s Verrier Elwin noted that opium was distributed in the Lohit area as a 'political present' by British officers on tour, the 'custom of trying to keep the tribesmen happy and content by giving them presents' being very old (Elwin 2009: 69). This is confirmed by many authors, as is shown by

6 The Mishmi are actually renowned for their weaving designs and skills, and traditionally use nettle fiber to make their cloths, along with cotton, wool, and sometimes human hair (Ghosh 1995: 236).

7 Dresses saturated with opium originating from Laos have been seized in June 2011 (and at least one more time since then) at Chicago's O'Hare international airport (ABC7News, 'Clothium' latest fad for drug smugglers, 14 June 2011).

many articles originally published in nineteenth century learned journals and in official reports collected and edited by Elwin (1959). Mills notes that, 'in the old days of clan fights, when physical fitness was important, opium addicts were few, but now the habit is almost universal' (Mills 1952: 4). Elwin seemed to agree with this when he wrote in 1957 that opium addiction was on the increase, mentioning areas where 'the young men have no longer to be alert in the new era of peace' (Elwin 2009: 108). Mills further observes that opium poppies are 'extensively grown' and that 'the crop appears to receive more attention than any other' (Mills 1952: 4). This is also confirmed by Elwin, who described 'the fields of poppy usurping food crops in the jhums and the little opium gardens behind almost every house' in the Patkoi Range (Elwin 2009: 107).

When and how opium was first produced by the Mishmi in Arunachal Pradesh is not known, and neither the existing literature nor the interviews I conducted recently (2012 and 2014) on that topic yielded any reliable information. What is clear is that most of the opium-related vocabulary used by the Mishmi (whether they are Digaru, Idu, or Miju) is Assamese, which could possibly indicate that opium production and consumption were based on Assamese practices. Very few Mishmi, including the elders, seem to know that the word kani that they use for opium is actually not a Mishmi word but an Assamese term. Indeed, a specific Mishmi word for opium does not seem to exist, and all the poppy-related vocabulary is constructed on the basis of the Assamese word for opium and on Mishmi words for different plant parts. In Digaru Mishmi, for example, *kaning chei* is the opium sap, *kaning sang* is the opium poppy, *kaning tawrah* is the white poppy, *kaning chalag* is the purple poppy, *kaning tapo* is the poppy capsule, and *kaning shei* is the poppy seed – *kaning* deriving from the Assamese language (interviews with opium farmers, 2014).

There are several reasons for the illegal opium production in Arunachal Pradesh. Heavy and widespread opium consumption and addiction is a clear cause of illegal opium production as 90 to 95% of Lohit and Anjaw districts have opium addicts (11,000) (INSA 2010: 22). While the INSA report does not distinguish between opium users and opium addicts, personal observations and interviews determined, on the basis of the level and frequency of consumption witnessed in every single village visited, that opium addiction is rampant. As a consequence, 74% of Lohit villages and 98% of Anjaw villages engage to some degree in opium production

(INSA 2010: 22). Furthermore, in most villages opium was either sold to the Marwaris or consumed locally (INSA 2010: 40). Opium consumption and addiction are actually a much bigger problem than opium production, and various NGOs, student groups, women's groups, and associations based on the principles of Alcoholics Anonymous, conduct awareness building campaigns and set up detoxification camps in a state that otherwise lacks basic treatment facilities (personal observations and interviews, 2012 and 2014).

As is the case in other regions with illegal opium production like Afghanistan, Burma, and Laos, poverty and food insecurity are likely drivers of opium production in Arunachal Pradesh and they are indeed often mentioned by many opium farmers, along with the need for cash crops to pay for schooling, health care, etc. (interviews with opium farmers, 2012 and 2014). Rice (typically three mountain varieties and three paddy varieties) is systematically produced in or around each village, but the yields are rarely high enough to feed an average family (that is, a resource-poor family) for more than six to eight months. As a consequence, and as is often the case in Mainland Southeast Asia, game and other non-timber forest products (NTFP) are gathered from the surrounding forests on a daily basis (personal observations and interviews with farmers and hunters, 2014). Also, in a natural environment where agricultural production is difficult and limited (i.e. with steep slopes, limited flat agricultural land, heavy rainfall, dense forests and quick growth of vegetation) and where non-farm employment is scarce, opium production allows farmers to diversify their productions and their income sources: opium is a sure way to secure family needs, notably when yields from other crops (for example orange or cereal production) are lower than expected. Opium production also makes some off-farm employment available as the opium harvest in Lohit attracts poppy growers (whether Digaru or Miju) from Anjaw, where the opium harvest takes places at a later time (personal observations and interviews, 2014). Beyond wet rice and dry rice, food crops grown in most villages include millet, buckwheat, and mustard, the latter being largely cultivated as a cash crop despite being poorly interesting economically (personal observations and interviews, 2014). Other fast-developing cash crops include cardamom, mostly cultivated in the high lands of Anjaw since it is not ecologically suited to the low lands of Lohit, pineapples and orange orchards (both these are multiplying quickly in the Lohit

and Lower Dibang Valley districts). Such cash crops have been developed recently (notably through a community horticulture farming project initiated by the National Agriculture Bank for Rural Development) and are often cultivated along with opium poppies (especially cardamom and pineapples) in what appear to be clear income diversification strategies (personal observations and interviews, 2014).

Nevertheless, in areas with less opium production, such as in the Lower Dibang Valley district, interviewees tend to dismiss such economic factors and instead blame opium production on greed and corruption. People in the region repeatedly mention specific cases of high-ranking politicians and police officers (many of whom are also opium users) who grow poppies on their own land. In the three districts of the Lower Dibang Valley, Lohit and Anjaw, a clear lack of political will to address the issue of opium production and consumption was repeatedly denounced (interviews with NGO members and opium farmers, 2014). According to Romesh Bhattacharji, the former Narcotics Commissioner of India and one of the authors of the INSA report (Bhattacharji 2010), the fact that opium poppy cultivation had resumed and increased to thousands of hectares in the 2000s and 2010s after having receded in the 1990s was mainly caused by greed, not by need. Still, he stresses that 'poverty is still rampant in the region' (Bhattacharji 2014). Last but not least, several interviewees mentioned exchanges of arms for drugs by insurgent and self-defence groups operating in Assam and in Arunachal Pradesh. Some insurgent groups, especially the Nationalist Socialist Council of Nagaland (Khaplang faction), have reportedly been hired by wealthy opium producers for protection (interviews with NGO members, 2014). Some security sources mention promotions by the Communist Party of India (Maoists), with the help of cadres of the anti-talks factions of the United Liberation Front of Asom (anti-talks or Independent) and the National Democratic Front of Bodoland (I.K. Songbijit) who are hiding in several places in Arunachal) of opium production in districts of Arunachal neighbouring Assam[8].

Another reason for opium production is that the area is isolated, not only by its geography, but also isolated from official policies. Long a *terrae*

8 http://www.satp.org/satporgtp/countries/india/states/assam/terrorist_outfits/ULFA2013.htm (page retrieved on 11 February 2014).

incognita sparsely populated by ostracised hill tribes, the area was placed by the Bengal Eastern Frontier Regulations (1873) behind what the British authorities called the 'Inner Line'. Typical of the indirect rule system that the British developed in other parts of their empire, the Inner Line demarcated the extent of government control and direct administration: 'Through the creation of backward tracts, excluded areas and partially excluded areas, the colonial administration had drawn an Inner Line, marking the extent of revenue administration beyond which the tribal people of the region were left to manage their own affairs' (Datta 2001). As happened in the similarly indirectly ruled Shan States of Burma, such a policy of isolation[9] and the opium ban south of the Inner Line may have spurred opium production to the north of it. The fact that this policy of isolation has been in force ever since the Inner Line became the state's southern boundary with Assam, must be considered alongside the deep economic underdevelopment of Arunachal. In fact, the 'economic development of the region followed a specific pattern' with economic activities 'concentrated in select pockets', which means that 'vast areas, therefore, remain inaccessible and backward even to this day' (Datta 2001). As Sreeradha Datta explains, 'one of the important negative fallouts of the Inner Line system has been the perpetuation of the isolationist tendencies in the hilly and mountainous parts of the region. It has kept the people apart and minimised the sobering impact of modernization' (Datta 2001). While it cannot be said that illegal opium production thrived because of the maintained isolation and backwardness of Arunachal Pradesh, it can be safely argued that the Inner Line system and what it implied administratively and economically are factors that made large-scale illegal opium poppy cultivation easier to exist in the state.

9 See Jafa (1999): 'The Inner Line was first defined in 1873 to stop hill tribal raids into the plains. However, within a few years of the British occupation of these hills, restrictions ceased on the movement of hill tribes, and they were allowed to fish, hunt and attend markets freely on both sides of the Line. But the plainsmen were never allowed to enter the hills without a pass. The hill tribals, whose activities had prompted the creation of the Inner Line Regulation, were thus exempted from the application of its provisions. Ironically, the restrictions applied only to the people of the neighbouring plains districts of Bengal and Assam for whose protection the Line was initially defined. In the long run, therefore, the Inner Line was neither designed nor enforced to serve its original purpose.'

Conclusion

As shown by the case of Arunachal Pradesh, the extent of illegal opium production in India is poorly understood, and explanations of the diversion of legal opium production to the illegal domestic market must therefore be considered with utmost caution. What the case of illegal opium in Arunachal Pradesh shows more than anything else is that the overall global volume of illegal opium such as estimated by the UNODC is far from being accurately known, because large-scale illegal opium production is completely unaccounted for. Arunachal Pradesh is just one such example. Nevertheless, more is known about the extent of illegal opium production in Arunachal Pradesh than is known about the extent of illegal opium production anywhere else in India.

India is facing the same issues as Afghanistan, Burma, Laos and other illegal opium-producing countries. Physical and political isolation together with poverty, food insecurity, economic underdevelopment and, of course, opium addiction, make an ideal setting for illegal opium production. In all these countries, forced eradication of the illegal opium poppy crops is hardly feasible (technically and financially) and is likely to be counterproductive as it would worsen poverty, which is one of the main drivers of illegal opium production. Forced eradication is also unadvisable on strict political and strategic grounds, since tribal resentment is not something that the Indian Army wants to experience in a territory that is contested by China[10]. In fact, some regional actors, such as Arunachal's Health and Family Welfare Minister, Kalikho Pul, go as far as to warn against the possible unfolding of a 'Kargil-like' situation – i.e. a Chinese intrusion similar to the 1999 Pakistani incursion in Kashmir – if economic development is not more actively promoted in the state's northernmost areas[11]. As is the case in the other areas of large-scale illegal opium production, economic development is undoubtedly the only viable solution. Here the sequencing of counter-narcotic actions is crucial since coercion, including forced eradication, should not be resorted to before economic alternatives to the opium economy have been implemented.

Opium use and abuse are also serious issues that threaten the com-

10 The 1962 conflict between China and India actually took place in Arunachal Pradesh and Chinese military incursions still reportedly occur from time to time.

11 Business Standard. 'Arunachal minister launches community horti-farming project in Anjaw District'. 3 December 2014.

munities that produce most of Arunachal's opium: many Mishmi stress that opium and heroin consumption threaten their fragile communities and cultures (interviews with NGO members and former opium addicts, 2012 and 2014). Opioid replacement therapies are clearly needed, but are hardly manageable considering the very large number of opium addicts in the Anjaw and Lohit districts alone. The fact that India is one of the very few countries to legally produce opium for the pharmaceutical industry lends weight to Romesh Bhattacharji's call to revive the Opium Registry (2014) according to which opium abusers could obtain prescriptions obtained from licensed outlets maintained by the government. It is obvious that the solution to the opium question in Arunachal Pradesh must address issues of both production and consumption. The state is in dire need of large-scale economic and public health policies to address the issues of opiates addiction and economic development. Only by addressing these questions will it be possible to solve the issue of illegal opium production.

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