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Is Medicinal Opium Production Afghanistan's Answer?: Lessons From India and the World Market

Victoria A. Greenfield*

Letizia Paoli†

Peter H. Reuter‡

*United States Naval Academy, vag@usna.edu

†Catholic University of Leuven, letizia.paoli@law.kuleuven.be

‡University of Maryland - College Park, preuter@umd.edu

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Abstract

Poverty and corruption are pervasive in Afghanistan and opium production is rampant, especially in the country's most insecure southern regions. Afghanistan's opium production now accounts for the overwhelming majority of the world's heroin supply. The International Council on Security and Development, a European think tank formerly known as the Senlis Council, is advocating a policy response that it refers to as "Poppy for Medicine." Under the Council's proposal, poppy farmers in Afghanistan would gain access to the world's legal pharmaceutical market through a two-tiered licensing program. A careful examination of India's experience as the world's sole licensed exporter of raw opium and of the world market for legal opiates casts serious doubt on this proposal. Legal medicinal opium production is an improbable answer for at least five reasons: first, illegal production will continue; second, diversion from the legal market to the illegal market is inevitable; third, diversion will involve further corruption; fourth, there may not be a market; and fifth, Afghanistan lacks the institutional capacity to support a legal pharmaceutical industry.

KEYWORDS: Afghanistan, India, drug control policy, poppy, opium, morphine, heroin, pharmaceutical licensing

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Introduction¹

Conditions in Afghanistan are bleak. Poverty and corruption are pervasive and opium production is rampant, especially in the country's most insecure southern regions. Farmers in Afghanistan cultivate opium poppy from which they harvest raw opium, the leading ingredient in heroin. The country's opium production now accounts for the overwhelming majority of the world's heroin supply. Afghanistan's market dominance dates back to the early 1990s, but has become more pronounced since the fall of the Taliban in 2001. In 2007, Afghanistan's opium production reached a record-breaking peak of 8,200 metric tons, representing over 90% of all illegal production worldwide; production declined in 2008 and 2009, with potential yields of about 7,700 and 6,900 tons, respectively, but still representing the overwhelming majority of all illegal opium production. Burma, ranking second, harvested an estimated 460 tons of opium in 2007 and 410 tons in 2008 (UNODC, 2009a: 34; UNODC, 2009b: 1).²

Calls to 'break the narco-state' have echoed through Washington and, until recently, poppy eradication and acreage reduction strategies have taken center stage in U.S. policy making (Debusmann, 2009). In contrast, the International Council on Security and Development (ICOS), a European think tank formerly known as the Senlis Council, is advocating an alternative approach that it refers to as "Poppy for Medicine" or "P4M" (see Senlis Council, 2007a, 2007b, and 2005 for details).³ ICOS offers P4M as "[a]n integrated economic solution to Afghanistan's poppy and insurgency crises" (Senlis Council, 2007a: 8). Under the ICOS proposal, poppy farmers in Afghanistan would gain access to the world's legal pharmaceutical market through a two-tiered licensing program (Senlis Council, 2007a: 54). Farmers would cultivate opium poppy under license for pharmaceutical production; district-level manufacturing facilities, also under license, would then convert the opium into morphine medicines for domestic consumption and export.⁴ Afghanistan would accrue returns not just from cultivation, but also from pharmaceutical production.

¹ This paper draws policy implications from Paoli et al. (2009a and 2009b); it cites those works and other reference materials to support additional analysis.

² At the time of this writing, the United Nations Office on Drugs and Crime (UNODC) had not yet released an opium production estimate for Burma for 2009.

³ ICOS describes itself as "an international policy think tank working to combine grassroots research and policy innovation at the intersections of security, development, counter-narcotics and public health issues." For more information about the ICOS proposal see <http://www.poppyformedicine.net/> and Senlis Council (2007a, 2007b, and 2005), available at <http://www.icosgroup.net/modules/reports>.

⁴ Opium, well known as the leading ingredient in heroin, is also a source of morphine, codeine, thebaine, and other opiate alkaloids that are used to produce legal painkillers.

ICOS argues that poppy cultivation and strong local village control systems are Afghanistan's two most valuable resources (Senlis Council, 2007a: 8) and that P4M would leverage them to the betterment of Afghanistan and other developing nations, by triggering economic development in Afghanistan and satisfying a vast, unmet demand for legal painkillers (Senlis Council, 2007a: 8-10). Given the lack of compelling alternatives for dealing with the problems arising from Afghanistan's market dominance, it is not surprising that this pharmaceutically-oriented proposal has received considerable attention in the press (e.g., Applebaum, 2007; Debusmann, 2009; Righter, 2005; *The Economist*, 2005) and in public policy circles (e.g., Bruno, 2009; Chouvy, 2008; Commission on Narcotic Drugs, 2008; European Parliament, 2007; Felbab-Brown, 2007; Grare, 2008: 15-16; Gynna Oguz, 2006; International Narcotics Control Board (INCB), 2006: 35; *The Lancet*, 2005; Qaderi, 2006; Uchtenhagen, 2006; van Ham and Kamminga, 2006-7).

Nonetheless, a close examination of India's experience as the world's sole licensed exporter of raw opium (Chouvy, 2008; Paoli et al., 2009a and 2009b) and of the world market for legal opiates casts serious doubt on the ICOS proposal. Legal production may help some of Afghanistan's farmers, but it cannot be expected to greatly reduce illegal production or corruption, or do much to lift the nation out of poverty. The international policy community is looking for answers to Afghanistan's accumulating crisis, but, quoting Grare (2008: 4), it will not find a "miracle solution" in legal medicinal production.

Legal medicinal opium production is an improbable answer for at least five reasons: first, illegal production will continue; second, diversion from the legal market to the illegal market is inevitable; third, diversion will involve further corruption; fourth, there may not be a market; fifth, and underlying at least three of the first four concerns, Afghanistan lacks the institutional capacity to support a legal pharmaceutical industry.

Illegal Production Will Continue

The most recent published estimate indicates that the area of illegal opium poppy cultivation in Afghanistan represents less than 3% of the country's arable land (Paoli et al., 2009b: 56, citing Mansfield, 2006: 48);⁵ even licensing this entire area, which ICOS does not recommend, would not exclude continued illegal cultivation of an equally large area (Felbab-Brown, 2007: 9). The demand for heroin will not decline. Production will shift to other countries only if Afghanistan becomes a more expensive or less supportive environment for illegal

⁵ With surges in production in 2006-2008, the less-than-3% estimate, which is based on 2004 data, is out of date but still reasonable; a simple extrapolation using data for 2007, a new peak year for Afghan opium poppy cultivation, yields an estimate of only 4.3%.

cultivation. With so much surplus land—and labor—in Afghanistan, the creation of a legal opium industry cannot, itself, make the country a less attractive place to produce illegal opium. The task of suppressing illegal production, already almost impossible, will only be made more difficult by the need to distinguish it from legally-licensed production.

In India, where political institutions are stronger and law enforcement can better address overt criminal behavior, we find little evidence of explicit illegal cultivation of this highly visible, brightly flowering crop;⁶ instead, illegal market participation occurs largely through diversion from legally-licensed cultivation.

Diversion Is Inevitable

Though often neglected in the literature, India may well be the world's third largest contributor to the illegal opiate market, after Afghanistan and Burma, by virtue of diversion from the legal market (Mansfield, 2001: 32-33; Paoli et al., 2009a and 2009b: 144, 155-157).⁷ Traffickers in India routinely outbid the licensing program, under which farm-level income is quite modest, both in absolute terms and relative to the income available through diversion; the price paid in the legal market in India is no more than one third of that paid by illegal refiners (see Paoli et al., 2009b: 154, for the price comparison). On this basis, India bears the distinction of being a world leader in the illegal opiate market: roughly 200 to 300 tons of opium flowed annually and unchecked from the legal market to the illegal market from 1996 to 2004; by comparison, India's legal production ranged from 261 to 1,326 tons during the same period (Paoli et al., 2009a: 350, 352-353 and 2009b: 149, 155-157).⁸

The ICOS proposal claims to assure that diversion will not occur and that farmers—under the supervision of village leaders—will not cheat, but India's experience, using the same control mechanism that ICOS recommends (Senlis Council, 2007a: 34-35), suggests otherwise.⁹ ICOS also proposes a district-level

⁶ Paoli et al. (2009a: 348 and 2009b: 146) find no evidence of widespread illegal cultivation; however, Chouvy (2008: 105), citing recent eradication data, contends that it is "very prevalent." The Government of India reports an unusually large eradication figure, 7,753 hectares, for 2007. In that same year, the legally-licensed area totaled only 6,269 hectares. In the preceding decade, the next largest report of eradication was 248 hectares; in 2008 and 2009, the figure dropped to 595 and 256 hectares, respectively. (See Central Bureau of Narcotics, 2009, for data.)

⁷ UNODC production statistics do not include Indian diversion (e.g., see UNODC, 2009a: 34).

⁸ Paoli et al. (2009a: 352-353 and 2009b: 144, 155-157) provide this estimate of diversion, noting that diversion likely declined in 2005 and 2006 along with licensed cultivation. Licensed cultivation continued to decline in 2007 and 2008; but, with the substantial increase in the area licensed in 2009 we would expect to see a resurgence of diversion.

⁹ See Mansfield (2001: 21-24) and Paoli et al. (2009a: 351-352 and 2009b: 153-155) for discussions of India's use of the "minimum qualifying yield" as a control mechanism.

monitoring function for the Afghan National Police (ANP); but, in addition to well-publicized general concerns about corruption and inadequate training, at least some elements of the ANP have been accused of benefitting from the illegal opiate market, for example, through road-side extortion (Mansfield, 2008: 41-48; Mansfield, 2009: 57-65; Straziuso and Guttenfelder, 2009).

ICOS downplays the relevance of diversion in India on the basis of what it regards as the “extensive benefits” and stronger local incentives in Afghanistan and, notwithstanding what it refers to as “the diversion that plagues India’s licensed poppy cultivation projects” (Senlis Council, 2007a: 13, Footnote 8), describes India’s licensing scheme as a success story (Senlis Council, 2007a: 8, Footnote 2; Bhattacharaji, 2007). If a relatively well-governed nation, such as India, cannot control diversion, how then can Afghanistan, a nascent state, struggling for legitimacy, be expected to do so?

ICOS cites Turkey as another example of success, but Turkey does not produce raw opium; rather, it, like Australia, France, and 11 other countries, produces concentrate of poppy straw (CPS). The CPS processing method, under which the agricultural commodity is the poppy plant, less its seeds, and not the opium extract, is far less susceptible to diversion (Mansfield, 2001: 20, 24-25, and 33); indeed, Turkey adopted the CPS method in the 1970s to mitigate leakage (Paoli et al., 2009b: 35). Alternatively, Afghanistan could also embark on CPS production, but the technology may be a poor fit for Afghanistan. Whereas the harvest of raw opium requires abundant labor and negligible capital—farm workers travel from field-to-field, first hand-scoring each poppy caplet and then scraping and gathering the resulting opium ooze—the harvest of poppy straw favors mechanization. Even under conditions of manual harvesting, as still occur in Turkey, the simple acts of cutting and threshing likely require relatively less labor than scoring and scraping.¹⁰ (See Mansfield, 2001, various pages, and Paoli et al., 2009b: 53 and endnotes, for descriptions of both processes.)

In addition to adopting the CPS method, Turkey also operates a comparatively centralized and tightly monitored system of poppy straw collection, storage, and processing, under which diversion entails substantial risks of detection (Mansfield, 2001: 10-12 and 24-25). ICOS, in contrast, favors a decentralized system for Afghanistan, based on a combination of village-based poppy growing projects and district-level morphine manufacture (Senlis Council,

¹⁰ Mansfield (2001: 7) reports that India may employ as many as 1 million people to harvest 25,000 to 30,000 hectares of opium, whereas, Australia, a country in which farmers operate combine harvesters on large parcels of land, requires less than 1,000 people to grow poppy on about 20,000 hectares. Turkish poppy growers certainly employ more workers in the manual harvest of poppy straw than their Australian counterparts, but they likely employ substantially fewer workers than their Indian counterparts.

2007a: 23).¹¹ The think tank would exploit what it describes as strong local controls (specifically, village-level controls), which it would then seek to integrate with Afghan government authorities, including the ANP, and international development agencies in a tripartite “integrated control system” (Senlis Council, 2007a: 26-29). At least implicitly, ICOS credits local controls in Afghanistan’s villages with greater strength than those in India. Ironically, those strong local controls, to the extent that they are still in place in Afghanistan’s southern regions, are the very controls that have tied the agricultural community to the illegal market through credit and land-tenure arrangements.

The local leadership that ICOS is counting on to prevent diversion is the same leadership that sponsors—and profits from—the illegal trade. Afghan leadership beyond the local level, including a number of prominent officials accused of complicity if not outright involvement in the drug trade (Paoli et al., 2009b: 126-130; Risen, 2008), may be no less culpable and no more reliable.

Diversion Will Involve Corruption

India’s experience shows that the diversion of opiates from the legal market to the illegal market cannot take place without the cooperation of officials who must be enticed to “overlook” breaches in licensing and handling procedures. In Afghanistan, a bribe or share of trafficking profits might provide the enticement, neither of which would constitute an innovation in a country already overtaken by corruption. Under P4M, decisions on the distribution of revenues from medicine sales to project participants would be left to village leadership (Senlis Council, 2007a: 31), creating new opportunities for favoritism, side payments, and embezzlement. Diversion may involve more or less corruption than unbridled illegal production (Felbab-Brown, 2007: 7, 10), but it will almost certainly affect the ability of Afghanistan’s leaders to govern effectively; by legitimizing production, it may also legitimize corruption (Grare, 2008: 25).

¹¹ ICOS (Senlis Council, 2007a: 23) proposes district-wide project clusters, each consisting of 5 to 10 individual village-based projects together with a district-level facility for manufacturing poppy-based medicines. The facilities would be jointly-owned and operated by the individual village projects that provide them with the opium to manufacture the medicines. ICOS contends that “The management and operation of this transformation factory by representatives from the individual village projects would provide the careful local control necessary to prevent corruption and diversion” (Senlis Council, 2007a: 25).

There May Not Be a Market

The ICOS proposal posits a robust export market for Afghan-originating opiates, but an analysis of INCB data holds little promise for the foreseeable future.¹² Demand is rising, but not enough to solve Afghanistan's problem.

Global demand for opiate raw materials rich in morphine has grown by about 24% over the most recent 5-year interval: demand rose from 362 tons in 2004 in morphine equivalent units to an estimated 450 tons in 2009 (INCB, 2009b: 102). If global demand continued to grow at that rate over the next five years, it would rise to almost 560 tons in 2014.¹³ The corresponding production estimate for 2009 is 467 tons, roughly in line with production in 2004, 447 tons, but almost twice the production estimate for 2008, only 257 tons (INCB, 2009b: 102).^{14,15} If production remained at 467 tons, the legal opiate market would face a gap of about 3 tons in 2010, growing to about 92 tons in 2014.

These gaps, even 5 years forward, are not large enough to absorb much of Afghanistan's opium production, roughly 690 tons in morphine equivalent units in 2009.¹⁶ First, total stocks of opiate raw materials (estimated at 373 tons in 2008, rising to 400 tons in 2009 (INCB, 2009b: 102)) would more than cover the gaps through 2014, absent an immediate sourcing solution; second, current producers would likely contribute to that solution, by increasing their production to reach adequate levels under INCB guidance; third, some newly consuming countries might themselves seek to establish production to meet their own needs; fourth, the gaps, even in 2014, are small relative to Afghan production. A gap of about 3 tons would have absorbed less than 1% of Afghanistan's production in 2009; a gap of 92 tons would have absorbed just over 13% of that production.

¹² See Chouvy (2008), Grare (2008), and Gynna Oguz (2006) for similarly pessimistic market assessments undertaken for earlier periods.

¹³ The INCB (2009b: 107) anticipates steady growth in the demand for opiates in the future.

¹⁴ The lower levels of production since 2004 reflect unfavorable weather conditions and an apparent response to the INCB's call to opiate producing countries to maintain production in line with current and expected demand. In 2005, the total stock of morphine-rich opiate raw materials reached a record-breaking 838 tons (INCB, 2009b: 102), an amount more than sufficient to cover the market for two years, compared with an INCB target of about one year (INCB, 2009a: 18). INCB (2009a: 18 and 2009b: 104) reports sufficient year-end 2007 stocks of morphine-rich opiate raw materials to meet global demand for more than 15 months. Reserves of thebaine-rich opiate raw materials are tighter, less than enough to cover the global market for a year as of year-end 2007, but compensated by the high levels of stocks of thebaine and opiates derived from thebaine, which were sufficient to cover global demand for 22 months.

¹⁵ The production statistics do not include opium that is seized in Iran and then released for the legal extraction of alkaloids (INCB, 2009b: 78, 80).

¹⁶ This is a conservative estimate, based on a rule-of-thumb conversion ratio of ten units of opium to one unit of morphine; in recent years, UNODC has applied a lower rate to Afghan opium, implying a larger number of tons in morphine equivalent units (UNODC, 2009a: 297).

Moreover, as the INCB (2009a: 19) reports, much of the absolute increase in the consumption of legal painkillers has occurred in the developed world and not in the developing world, which ICOS envisions as Afghanistan's point of entry to the global market. Consumption has been on the rise in some of the world's poorer nations, but the developing world still represents only a small fraction of the total opiate market.¹⁷ For example, in 2007, global consumption of morphine, as morphine, was about 39 tons (INCB, 2009b: 86). Together, the United States, Europe, Canada, Australia, New Zealand, and Japan accounted for almost 93% or about 36 tons of that consumption; the developing world accounted for the remaining 3 tons.

Others, including ICOS (see also Uchtenhagen, 2006: 147; van Ham and Kamminga, 2006-7: 78) argue that INCB statistics understate demand because they suffer from non-reporting and embody market controls and distortions, particularly in developing countries, that result in higher-than-competitive pricing and lower-than-competitive consumption. Some controls and distortions may be unavoidable—as the INCB has reminded governments, “narcotic drugs and opiate raw materials are not ordinary commodities” (INCB, 2006: 18)—but others may be open to negotiation and reversal;¹⁸ nevertheless, timing matters. The developing world may have immense need for morphine medicines, but its consumption of legal painkillers, even if rising over the past decade, may not substantially reflect that need for many years.

ICOS characterizes the gap between need and consumption in developing countries as a vast, unmet demand for painkillers, specifically “essential morphine medicines” (Senlis Council, 2007a: 10 and 83-98). The think tank focuses largely on the issue of affordability and suggests that Afghan suppliers can undercut established pharmaceutical suppliers through preferential trade agreements with under-consuming nations. However, this gap, as has been stressed by others (e.g., Chouvy, 2008: 102-103; Felbab-Brown, 2007: 12-13; Grare, 2008: 17-18; Paoli et al., 2009b: 254-255)—and acknowledged by ICOS itself (Senlis Council, 2007a: 88-90)—also involves institutional constraints, relating partly to restrictive import policies, international and domestic regulatory measures, and domestic healthcare delivery, that have little to do with affordability *per se*. ICOS offers Afghan opium as the solution to a global pain crisis, but the crisis that ICOS hopes to remedy is not alone a crisis of supply.

¹⁷ “The consumption of opioid analgesics for the treatment of pain in many developing countries remains low. While several developing countries more than doubled their level of consumption of opioid analgesics during the past decade, their original level of consumption was very low” (INCB 2009a: 19). Note that the word “opioid,” in the INCB statement, refers to a broader category of naturally- and synthetically-derived pharmaceutical products than does “opiate.”

¹⁸ A recent legal battle, fought by an incumbent alkaloid extracting pharmaceutical firm, GlaxoSmithKline, Australia—an erstwhile duopolist—against a new entrant, TPI Enterprises Ltd., suggests the value of distortions to incumbent producers (see Clark, 2007; Sharp, 2008).

The INCB and the World Health Organization (WHO) have been tracking the medical use—and underuse—of opiates for decades. One INCB report, prepared in cooperation with the WHO, ranks impediments to use across 65 developed- and developing-country survey respondents and finds that concerns about addiction; insufficient training of health-care professionals about opiates; laws or regulations restricting opiate manufacture, distribution, prescription, or dispensing; and concerns about legal sanctions, occupied the top three positions (INCB, 1996: 5).¹⁹ That report also finds that “limitations in resources for basic health care, as well as cultural beliefs and attitudes about pain and suffering and narcotic drugs, may not change or may be slow to change” and that incorporating narcotic drugs in mainstream medicine “will take time” (INCB, 1996: 13).²⁰ Follow-on reports (e.g., INCB, 2000 and regular assessments in the INCB’s annual reports) and a recent WHO program to improve access to controlled medications (WHO, 2007) continue to call attention to underuse, especially but not only in developing countries. The WHO program, which targets low and middle income countries (WHO, 2007: 22), may encourage medical use among those countries, but not rapidly.

This analysis of world market conditions reveals a problem of scale: Afghanistan’s opium production would swamp the legal market.²¹ As Afghan government officials have noted, the Afghan government would face great difficulty picking and choosing among poppy farmers to allocate a scarce pool of licenses to grow opium poppies (see Qaderi, 2006, for a related discussion). On what basis would the Afghan government—or local leaders—choose and would the process of choosing invite more corruption?

Afghanistan Lacks Institutional Capacity

Grare (2008) and others emphasize the need for institutional capacity in Afghanistan. We foresee institutional challenges locally, for example, in preventing diversion and ongoing illegal production, as addressed above, and in

¹⁹ Insufficient training and restrictive laws and regulations ranked equally.

²⁰ The INCB (2000: 4) reports that disparities between developing and developed country availability “tend to be even greater because in developing countries the relief of pain and suffering is given much lower priority than other, more urgent health and social problems....” Chouvy (2008: 102-103) notes that “the demand for modern analgesics is also related to the importance of conventional or allopathic medicine with regard to local traditions and beliefs.”

²¹ This action would contradict the intent of Article 24 of the *Single Convention on Narcotic Drugs*, which states that “If any Party intends to initiate the production of opium or to increase existing production, it shall take account of the prevailing world need for opium in accordance with the estimates thereof published by the Board so that the production of opium by such Party does not result in overproduction of opium in the world” (United Nations, 1961).

converting opium to morphine; we also foresee regional challenges, in transporting morphine medicines to market.

Pharmaceutical-grade morphine production would require both technical expertise, not necessarily an insurmountable problem, and oversight, possibly a bigger problem. ICOS dismisses problems of quality control and theft, again on the basis of strong local controls and, in the case of theft, additional ANP support, but these problems deserve closer consideration. Maintaining internationally-acceptable quality standards over widely-dispersed morphine production facilities would be a daunting task under the best of circumstance. Afghanistan, clearly, does not present the best of circumstances; rather, it presents some of the worst. Furthermore, with a second stage of licensing for morphine manufacturing, the ICOS model creates another channel for diversion. Diversion at this stage could require larger payments from traffickers to compensate for the value added in morphine production, but traffickers should be willing to pay more because the value of illegal heroin is far greater still.

One might then advise Afghanistan to export raw opium and forgo the value added in morphine production. However, for a range of technological and economic reasons, the world's pharmaceutical industry increasingly prefers to extract its opiate alkaloids, particularly morphine, codeine, and thebaine, from CPS, not from raw opium. The market for opiate raw materials has grown, but the market for raw opium, in which Afghanistan has proven its advantage, has weakened. India is feeling the pinch in its exports: in 1998, India exported about 700 tons of opium; in 2007, it exported about 500 tons (INCB, 2009b: 79).²² India's export profile might be weaker were it not for the "80/20 rule" (Title 21, U.S. Code of Federal Regulations, Section 1312.13(g)), under which the United States purchases at least 80% of its narcotic raw materials from traditional suppliers, namely India and Turkey. The United States accounted for 79% of India's exports in 2007 (INCB, 2009b: 79).

Moreover, underlying P4M or any other agricultural or industrial project, is the presumption of an institutional capacity to keep local producers and overseeing officials physically safe and to provide dependable access to whatever market exists for the salable product, be it morphine, raw opium, or CPS.²³ As Mansfield (2009) and others have been quick to point out, Afghanistan's most prolific poppy-growing regions lack security.

²² By comparison, Afghanistan produced about 8,200 tons of opium in 2007.

²³ ICOS (Senlis Council, 2007a: 37) refers to non-specific "external security actors" who would secure the transport of opium from the village to the district processing facility and states that "The complete physical security of the district processing facility would be ensured through security support from the Afghan National Police." The brief discussion above of alleged ANP involvement in roadside extortion suggests some of the challenges that might arise in relying on the ANP for support in securing the processing facility. For a summary of the proposed control system, including provisions for security, see Senlis Council (2007a: 39-40).

Poppy cultivation has become concentrated in areas in southern Afghanistan where the Afghan government has not much sovereignty and is being challenged near-daily by the Taliban, other anti-government elements, and individuals seeking control or personal enrichment on an ad hoc basis (Mansfield, 2009: 57-65). Local leaders continue to maintain order in some jurisdictions, but, as already noted, many of them are, themselves, either passive or active participants in the illegal market for opiates.

Checkpoints on highways and shipping routes are used for official purposes, but they are also used by the ANP—and others—to extract payments in cash and kind from travelers, whether they are transporting illegal opiates, carrying legitimate goods, or merely trying to obtain employment outside their villages (Mansfield, 2009: 57-65). Mansfield (2009: 60-61) describes a striking increase in violence and thug-like behavior in Afghanistan's southern regions, which reinforces the tendency of farmers there to cultivate opium poppy. Opium is one of the few commodities that Afghan traders will collect at the farm gate, thereby eliminating the need for farmers to risk unsafe transit.

Concluding Remarks

ICOS refers to poppy and strong local governance as Afghanistan's two most important resources, but poppy is not a resource, it is an output, and the strength of local governance may be unhelpful if local leaders are corrupt or merely looking out for the economic interests of their communities—and themselves.

ICOS presents a technical dossier (Senlis Council, 2007a) and economic case study (Senlis Council, 2007b) to substantiate the profitability of an Afghan pharmaceutical venture. Nevertheless, it seems unlikely that Afghanistan can enter the world morphine market successfully when that market is already "owned" by a handful of established producers, implementing well-honed technologies. Five countries currently account for over 75% of the world's morphine manufactures (the United States, United Kingdom, France, Iran, and Australia; see INCB, 2009b: 85). Can Afghanistan realistically hope to undercut the industry and impose itself as sixth important supplier? Ultimately, ICOS' claims of global competitiveness appear to rest on the promise of preferential trade agreements with countries that may or may not have effective demand for Afghanistan's product.

Arguably, if Afghanistan were institutionally capable of supporting a legal pharmaceutical industry, it would also be capable of supporting other economic activities, including some facing fewer obstacles, yet still adding value to the Afghan economy. For example, in the not-so-distant past, Afghan farmers were renowned for their prolific vineyards and orchards. The markets for the high-value agricultural products they once harvested may have weakened along with

the global economy, but they exist in the here-and-now and they will continue to exist—and likely strengthen—in the not-so-distant future.

Legal pharmaceutical production cannot drive economic development in Afghanistan. It might, instead, arise from a process of economic and institutional development;²⁴ however, that development process, if taking its own course, could otherwise lead to an entirely different set of economic activities, one that is both firmly rooted in Afghanistan's comparative advantage and tied to accessible and strong markets. ICOS views the opium poppy as a valuable resource, but a strategy for Afghanistan should look to the abundant labor and land that make opium poppy cultivation and harvesting possible. The ICOS proposal asserts a need for economic diversification (e.g., Senlis Council, 2007a: 38, 53, and 56-57), but offers few concrete ideas beyond creating a financing mechanism and using morphine manufacturing facilities to produce anti-malarial medicines (Senlis Council, 2007b: 15).²⁵

The ICOS proposal for legal medicinal production is, at first glance, enticing. It seems to take advantage of the facts on the ground to address Afghanistan's dominance of the world heroin market and even use them to solve another problem, namely the lack of legal painkillers in developing countries. Unfortunately, a more serious examination of the economic and institutional facts, including India's licensing experience, indicates that, while legal production might improve the lots of some Afghan farmers, it is unlikely to reduce Afghanistan's illegal-market dominance; end the pervasive corruption surrounding opium production; foster widespread economic development; or provide essential medicines to other poor nations.

²⁴ Grare (2008: 4-5 and 22) comments on the likeness of the ICOS proposal to the existing alternative livelihoods approach, which aims to replace illegal economic activities with legitimate ones and depends on the achievement of a set of broader development goals.

²⁵ ICOS' long-term objectives are unclear. It proposes significant investments in infrastructure to address what it refers to as a "global pain crisis" (Senlis Council, 2007b: 50; Senlis Council, 2007a: 10), implying a long-term commitment to morphine production; it also maintains that the P4M projects "would provide for the compulsory phasing out of poppy cultivation, even for the production of medicines" (Senlis Council, 2007a: 67).

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