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ORGANIZED CRIME

A SYNTHETIC AGE

The Evolution of
Methamphetamine Markets in
Eastern and Southern Africa



JASON ELIGH

MARCH 2021

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GLOSSARY

Brick	Stack of South African bank notes totalling 1 000 rands
Cat	Methcathinone, a synthetic version of the stimulant cathinone that is found in the khat plant
Chinese meth	High-quality methamphetamine allegedly originating from production laboratories in Gauteng province
Crystal	Crystal meth
Half	About a half gram of meth by weight, though it may vary due to quality
Ice	Crystal meth
Mandrax	Methaqualone, a sedative and hypnotic substance common to South Africa and known elsewhere by the former brand name Quaalude
MDMA	Methylenedioxymethamphetamine, commonly known as Ecstasy
Meth	Methamphetamine
Mexican meth	High-quality methamphetamine allegedly originating from Mexican cartel-affiliated super laboratories in Nigeria
Pakistani meth	High-quality methamphetamine allegedly originating from production centres in Afghanistan and shipped from South Asian ports to East Africa, often alongside heroin consignments
Point	About one-tenth of a gram of meth by weight, though it may vary due to quality and by region
Precursor	A chemical substance used in the synthesis of another chemical compound
Quarter	About a quarter gram of meth by weight, though it may vary due to quality
Shard	A large piece of crystal meth, resembling a piece of broken glass
Straw	A narrow piece of plastic tubing containing a small amount of meth and heat-sealed at either end
Tik	Afrikaans derivation, universally used in South Africa to refer to crystal methamphetamine; the term 'tik' is said to describe the sound of meth crystals as they rattle in a glass pipe (prior to heating and inhalation)




A meth lab. Worldwide, meth production volumes have been breaking records, and markets have grown.
© Darwin Brandis/Shutterstock



EXECUTIVE SUMMARY

Cape Town harbour. Today, meth has established and emerging consumer markets in Africa, as elsewhere in the world. © Henk Badenhorst/Getty Images



There is a global transition occurring in the production and distribution of methamphetamine (henceforth referred to as meth). Globally, meth production volumes have been breaking records, market penetration has expanded and diversified, and its unit production cost and price have decreased.¹ Centres of mass production have moved beyond the traditional 'Golden Triangle' and Mexican cartel territories, with new footholds being established in Europe, South Asia and Africa.² The volume of seizures has increased six-fold in the past 10 years,³ with an increasing frequency of counter-trafficking incidents involving the seizure of tonnes of meth at a time rather than kilograms.⁴ The size of the Asia-Pacific meth market alone is estimated to have quadrupled over the last five years, increasing from US\$15 billion to a value today of up to US\$61 billion.⁵ The geographic breadth of countries reporting seizures of meth or of the precursor chemicals used to manufacture it⁶ has expanded significantly over the same period.⁷

Around the world, falling prices and increased purity is leading to an increase in the use of meth by people who use drugs (PWUD).⁸ The illicit marketplace availability of meth is expanding alongside efforts by traditional high-volume production sources (e.g. Mexican Cartels and South East Asian syndicates) to increase production volume and shorten supply chains.⁹ As one senior international drug control official has noted, 'Of all the organized crime types, meth trafficking is the most dangerous and the most profitable. It underpins the growing power of these groups.'¹⁰

Some might say that meth is not really an African drug. After all, its presence and use in Africa often has been described as a localized issue (usually in relation to use in the Western Cape province of South Africa) or a minor reporting concern in relation to the potential or actual diversion of related precursor chemicals (in the context of West Africa). Often it is viewed as transitory, a drug for foreign 'others' that merely passes through African trafficking channels. In fact, we know now that such perceptions are outdated and, to a point, serve only to exacerbate the continued incomprehension of what has become a vibrant, globalised illicit drug industry and, more directly, one that permeates the continent's blurred borders, interconnected economies and vulnerable governance structures.

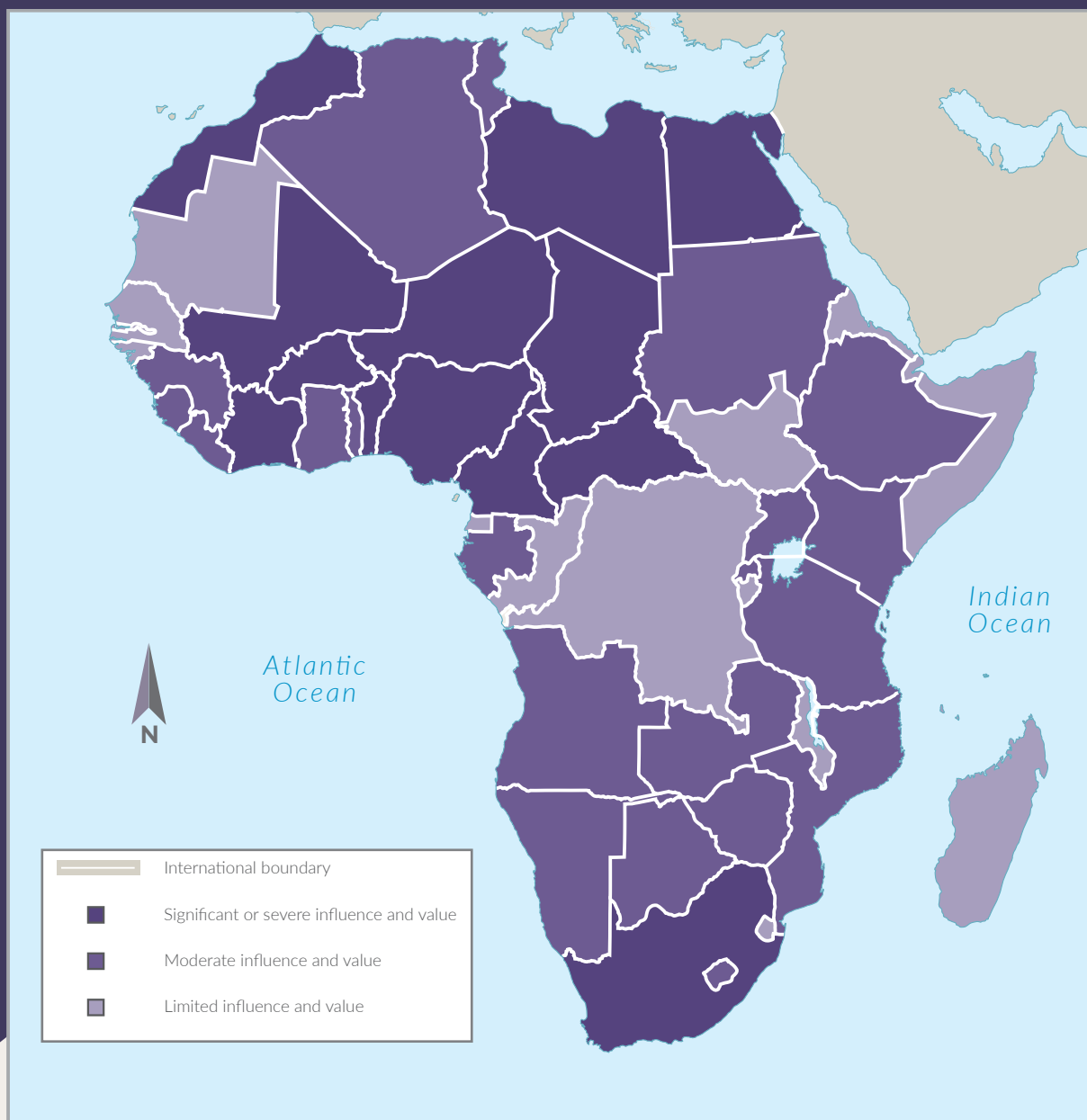


FIGURE 1 The societal influence and financial value of domestic synthetic drug markets in Africa.

NOTE: In this context, the categorization of 'synthetic drugs' is consistent with that defined by the UN, and includes amphetamines, methamphetamines, Ecstasy-type substances, synthetic opioids and cannabinoids, and other new psychoactive substances. It does not include counterfeit pharmaceuticals in this market but does include the market for diverted licit pharmaceuticals, such as Tramadol and Captagon.

SOURCE: ENACT, Organised Crime Index Africa 2019

Crystal meth is available for retail purchase and use in every country of eastern and southern Africa, and is being manufactured in these regions in rapidly increasing volumes for both domestic consumption and for integration into international supply chains. Today, meth is an illicit substance used in a growing number of African communities.¹¹ In many places, it has displaced cannabis, the traditional standard-

bearer for African drug markets, as well as heroin and cocaine.¹² It has become a multifunctional commodity as well. Meth is used as a currency to be exchanged for other illicit goods as well as being a substance for personal consumption.¹³

The growth of meth, more than any other illicit substance, appears to be a representative consequence of the continued struggle for capitalist modernity

amid intersecting and competing structures and systems of increasingly autocratic governance and illiberal reform that continue across the continent. The growing proliferation of meth results as much from chronic inequitable development as it does from organized criminal entrepreneurship. Meth is quickly filling the deteriorating spaces of a growing number of marginalized and victimized communities that find themselves pushed to the margins of efforts to achieve socioeconomic development. In 2020, this situation was exacerbated by the COVID-19 pandemic and the restrictive, security-focused measures undertaken by numerous governments to stop the spread of the virus.

The purpose of this report is to examine the existing retail markets for meth across several countries in eastern and southern Africa. This will be achieved through an analysis of meth availability, retail meth prices, distribution systems and domestic marketplaces. The report provides an analytical summary of meth markets that is grounded in data collected in 10 countries across the region with details of specific retail price points, commentary on domestic meth distribution systems and structures, and discussion of common structural characteristics across the region that enable and sustain these markets. Furthermore, the data generated from research undertaken for this report is intended to contribute to the broader regional objective of constructing an open-source database of time-series, country-specific illicit commodity price data, where applicable and practicable.

Research design

This research draws from and analyzes field data examining three characteristics of the illicit retail meth market in a selected number of countries in eastern and southern Africa. These include:

- **Price.** Identifying the retail price (i.e. the street price) for meth in a specific market location and examining factors that influence retail price variations within and between markets.
- **Distribution.** Identifying the way in which meth and meth precursors are moved between wholesale and retail vending situations, and how they are moved within and between adjacent or distant markets.
- **Market structure.** Identifying core structural components of domestic meth markets in the region, with particular attention given to those features that enable markets to emerge and flourish, as well as factors that disrupt or have a negative impact on these markets.

Researching illicit activities is a challenge in any context. Those who engage in illegal economic activities have strong incentives to resist the examination of, and reporting on, their activities. Nevertheless, it is widely accepted that researching organized illicit activities and their actors is possible, and is indeed necessary, to collect information that will provide a fuller understanding of the rapid globalization of drugs and related criminal economies, and further inform the design of more effective policy and strategy responses.¹⁴ Research work in this field generally necessitates triangulating data gathered from several qualitative and quantitative approaches and, in some rare cases, making plausible assertions based on this data. A primary element of the research is conducting interviews with people in and around the illicit economy, and in particular speaking with protagonists and observers within local drug marketplaces.¹⁵

Why examine price, distribution systems and market structures?

Illegal drug prices are a significant factor in uncovering the fundamental characteristics of the markets.¹⁶ Their structural characteristics are important variables in gaining a better understanding of the contexts, geographies and dynamics of the markets and flows in which they exist.¹⁷ They provide us with insight into the patterns of variability and the stability or instability of a particular drug market;¹⁸ allow us to identify marketplace and flow linkages;¹⁹ and they can be important metrics in the examination and understanding of drug-related policy and action.²⁰ Examining drug markets through the lens of pricing and distribution systems is therefore an important starting point to understanding the mobility characteristics of drugs within and across markets and countries,²¹ how they move between each,²² and how responsive markets and distribution systems are to domestic measures designed to disrupt or eliminate them.²³ Furthermore, the UN views information on illegal drug prices as being important enough to warrant core annual country reporting criteria in the context of monitoring the international response to these drugs.²⁴

Although several research approaches have aimed to address fundamental data deficiencies in various drug markets and geographies around the world, it is widely held that there is little granular information available on the broader spectrum of drug markets across our target region, particularly on the domestic characteristics of price and distribution systems present therein. This gap in knowledge has been highlighted in previous research initiatives,²⁵ and it is the intention of this report to contribute to filling these gaps.

The region of eastern and southern Africa encompasses numerous countries. For the purposes of this study, the countries selected for field research were Kenya, Tanzania, Mozambique, South Africa, eSwatini, Lesotho, Botswana, Malawi, Namibia and Angola. Although previous research has examined the flow of illicit drugs in the region,²⁶ it lacked considered examination of the extension of these flows, failing to analyze the potential for these illicit trafficking flows to sustain and entrench existing markets and to nurture the development of new consumer markets, such as those that have emerged for synthetic substances like meth. Furthermore, although meth use was acknowledged and moderately researched in South Africa, there remains little understanding as to the presence or use of meth within the drug markets of South Africa's neighbouring states. Therefore, the selection of these ten countries for research was intended to identify whether synthetic substances such as methamphetamine have gained a presence in each, and to identify the characteristics of the meth use, distribution and supply chain in a manner that comparisons could be made across regional and continental geographies, as well as across their constituent market structures, brokers and other principal actors. Existing GI-TOC research partners existed in each of these countries, and the presence of these resource partners was a secondary factor in the selection process of these countries for field research purposes.

What data was collected?

1. Wherever possible, a photograph of a representative meth retail sample, geolocated and price-matched, with and without packaging.
2. Identification of the price paid by the 'average' user for a 'normal' meth dose, and user perception of dose quality, where possible.
3. Characteristics identified by users, street dealers and higher-level traffickers of the local meth market; its operation, distribution, supply systems and pricing; and, core elements supporting the operation (and sustainability) of domestic meth markets, including socio-environmental impacts and influences.
4. Identification of the impact on markets of interdiction and other strategies designed to disrupt or end the meth trade in a particular area.

How was this data collected?

The design of this research was done in partnership with people who use drugs (PWUD) group members from Tanzania and South Africa and it included input from PWUD civil-society actors across a further four southern African nations.²⁷ A significant part of this research was designed and implemented with and by PWUD peers. As research partners and direct participants, they were invaluable in determining what was possible; where to go; how to phrase questions; and how, when and where to gather data safely, among other inputs.

The research fieldwork itself was developed around a respondent-driven sampling (RDS) design framework. RDS is a popular methodological standard for fieldwork dealing with hard-to-reach populations.²⁸ PWUD would qualify as a hard-to-reach population in this case, particularly as these are research locations where national population size estimates have not been done, or where the state takes an active role in pursuing, suppressing or manipulating their numbers.

Data framework

The data in this report has been drawn from those datasets that were gathered and submitted by research teams in each of the countries covered by this study. This dataset was derived from peer researchers who, with the input of network members, identified in advance a series of initial retail drug market locations in each of the towns covered by this research. The principle of confidentiality governed the entire approach to the fieldwork. Researchers took on the role of market observers and were given a series of tasks to be undertaken in each market location. These included:

- To meet with local PWUD – individually and in groups – to confirm the availability of meth in the local marketplace; to identify the most recent and common price (or price range) of meth, and the factors that affect price. This information was provided in person by local users to the peer researchers.

Methodology at a glance

Respondent-driven sampling

RDS was used to identify and obtain feedback from local users, dealers and traffickers. Informants were identified through a PWUD-led RDS methodological approach. Interviews were semi-structured and conducted by PWUD research partners. These partners included civil society organizations and individuals GI-TOC partnered with in this research, and whose field researchers were PWUD or PWUD peer-mentor individuals. Where situations allowed, researchers took photographs of meth samples available in each local marketplace.

Price metrics on methamphetamine

Retail purchase price information was collected for each location by PWUD research partners. Price metrics were collected from other PWUD. This data was cross-referenced with similar price data collected from interviews with local dealers and mid-level suppliers. Retail purchase price is one of several price-related metrics that were used. Others include 'price per unit of measure' (e.g. price per gram), and 'wholesale price and unit of measure' (e.g. wholesale price per kilogram).

Domestic distribution system and marketplace characteristics

Information on the characteristics of each site's drug distribution system, local market structures, and the historical emergence and embeddedness of these features was collected through semi-structured discussions with PWUD, local dealers and higher-level market suppliers. Information was sought on the structure of market supply chains, existing systems of cash and commodity flows, and factors that contributed to price and marketplace disruption and/or expansion.

- To obtain photographs of meth samples in as many of the locations as possible. With the permission of a local user, a photo was taken of the meth they had purchased prior to use in order to:
 - show the wrapping;
 - create a visual record of the available meth; and
 - show the approximate size of the sample. In some cases, dealers allowed researchers to take photos of packaging and volume samples of meth in their possession.
- Where possible, to get referrals from PWUD respondents to local mid-level heroin suppliers and low-level street dealers who would be willing to discuss retail distribution and marketplace characteristics, including volume of trade, methods of production and trade, import and export of products, and the effect of law-enforcement interdiction efforts on the meth supply chain.

This data, including photos, was captured by researchers on their mobile phones and sent regularly (i.e. every one or two days) to the research coordinator by means of an encrypted social-media app. After reviewing the data, the coordinator used the same app to send it to the GI-TOC research supervisor. A series of standard research security protocols were observed to ensure the confidentiality and security of this data – and of the researchers and respondents – throughout the research process.

No money (or other payment, in kind or otherwise) was given to any informants, dealers, suppliers, or any other individuals, and nothing was paid for access, photographs or responses to questions or referrals for this research or otherwise. In most cases, informants were more than willing to share information.

Research limitations

In the current literature and research in this area of study, the absence of retail price data is a constraint in the quest to understand better the drug market environments of eastern and southern Africa. The importance of understanding meth purity – particularly in the context of prices and markets – is another area that needs to be addressed. It was the intention of this research exercise to include data on meth purity as well as price. However, for several reasons, this was not deemed possible.²⁹

As with many research studies, time was a significant limiting factor in determining what could and could not be done in the context of this work. The fieldwork was designed to be completed within a four-month window. However, this delivery timeframe was disrupted by the unexpected onset of the COVID-19 pandemic and subsequent lockdowns in target markets.

Risks

The main risks included the following:

- Security environment, personal safety and security of data. Drug use is prohibited in every country in which research was conducted and therefore PWUD face significant stigma and discrimination, and regularly risk arrest, torture or worse in several of the countries covered. As a result, the collection of primary data on drug markets in these countries is a sensitive affair, particularly because of the reality that government agents in all countries play an important role in the operation of and security related to the drug markets across their frontiers and are part of these illicit economies.

All research participants were volunteers. Data collection locations were discussed and proposed by local researchers, who also had complete control over when and how to enter, and collect data from, the identified local drug markets. Data points, photographs and videos were sent in real time using a secure communication app to a domestic research coordinator who fact-checked the contents and forwarded them to the GI-TOC coordinator using the same app. Interviewers deleted the data and photographs from their devices after receipt was confirmed by the domestic

coordinator. Data was transmitted from the coordinator to the GI-TOC research focal point using the same protocols. It was then stored on an encrypted drive.

- Illegality of drugs and PWUD. Like all other scheduled substances, meth is criminalized in each of the countries that formed part of this research. Therefore, there was a significant risk of research participants being in contact with law enforcement agents or receiving criminal sanction in some manner. In several of the countries, there are active government campaigns to arrest and jail PWUD.
- Corrupt law enforcement and other government officials. It is difficult to identify corrupt officials, but their existence can be validated through a body of existing academic research, and, more directly, through the testimonies of PWUD who deal with such officials on almost a daily basis.³⁰

Summary of main findings

- High-quality crystal meth is available in domestic drug markets across the region.
- The price for meth has been reasonably stable over the past year, with few significant price fluctuations across markets.
- There is a general domestic standardization of meth pricing per gram across the markets of the region, with the further commonality that meth amounts of less than a gram tend to be retailed by price point rather than by weight.
- Unlike the regional heroin market, in which there are a variety of intermediate distributors and street dealers with a diversity of price points and quality, there are few small independent meth distributors and a limited number of production points. The barriers to entry are high for new sellers who are unaffiliated with an established distribution network.
- Meth market price points and supply channels appear to be controlled by a few syndicates. Distribution is strongly territorial in nature, and there is little variation in meth volume and packaging options. One can buy the same meth packaged the same way in almost every national marketplace.
- The regional meth markets appear to function in a quasi-cartel arrangement, with the same few transnational networks controlling most of the production and upper-level regional distribution.
- Of the markets analyzed here, consumer demand for meth is highest in South Africa but it is increasing in neighbouring markets, particularly because it is beginning to compete as a substitute substance for crack cocaine.
- The South African meth market is the oldest in the region, deeply embedded in society and the most structured of all the regional markets that were researched.
- South Africa remains the primary destination market for meth trafficking within the region, but cross-border supply is flowing to all neighbouring countries.
- Domestic meth production has waned in South Africa, with supply coming increasingly now from industrial production points in West Africa and through Nigerian supply channels.


- A new meth production supply chain has emerged from South Asia, with strong evidence supporting the conclusion that meth produced in Afghanistan is being smuggled through Pakistan and via traditional heroin maritime trafficking routes to eastern and southern Africa.
- International and domestic meth supply chains have experienced little disruption during the COVID-19 pandemic despite repeated lockdowns across the region.
- State-based and law enforcement corruption are rife in the domestic and regional meth markets, and this is a principal structural feature that has enabled the sustainability of supply and distribution chains within and across each of the researched countries.



THE ORIGIN OF 'TIK'

A drug user inhales meth through a glass tik pipe, known as a 'lollie' in South Africa.

© Rodger Bosch/AFP via Getty Images



If one were to search for the genesis of meth in eastern and southern Africa, an appropriate place to begin would be the seizure by South Africa of its very first methaqualone lab in 1987.³¹ Originally developed in India and more commonly known in former North American and European markets as Quaalude or 'ludes', methaqualone (or 'Mandrax' in South Africa) has little in common with meth. Unlike meth, it is not a stimulant. In its most common form, it is a depressant – a tablet that is crushed and smoked in combination with cannabis. It is in common use only in South Africa and a few smaller European markets. What Mandrax and meth do have in common is the fact that both are synthetic³² substances that enjoyed an extended period of legitimate pharmaceutical production and use, but now are manufactured in clandestine laboratories using commonly available and often licitly-traded chemical precursors.

Mandrax has a long history in South Africa. In the period prior to the end of apartheid, and for many years thereafter, it was the substance of choice in the country.³³ The ubiquity of Mandrax (and also 3,4-methylenedioxymethamphetamine (MDMA), also called Ecstasy) during the apartheid era of international political and economic isolation was alleged to have been the result of a targeted state chemical and biological weapons programme undertaken in the 1980s by the South African government.³⁴ This programme allegedly involved manufacturing and supplying methaqualone (as well as other 'street drugs') in an effort to control the country's black majority, an allegation that South Africa's post-apartheid Truth and Reconciliation Commission corroborated in a series of findings that were published in 1999.³⁵

*Production and
use of meth in
South Africa
expanded alongside
growth in the
illicit abalone trade.*

Regardless of the motivation, the 1987 seizure of a clandestine Mandrax laboratory in South Africa demonstrated three things. First, that the use of Mandrax (i.e. a synthetic drug) was so widespread in parts of the country that parties felt there was sufficient market demand to absorb additional supply. Second, that illicit community-based production of synthetic drugs was possible in South Africa; and third, that there was regular access – whether through licit or illicit channels – to the chemical precursors necessary to undertake such production. The latter benefited from the development and maintenance of complex cross-border smuggling networks – often in cooperation with criminal syndicates in neighbouring countries. These were formed during the apartheid era as a way to evade international sanctions.³⁶ These smuggling networks, relationships and pathways – many of which were grounded in historical trading routes and patterns – continued even after the end of apartheid.³⁷

Following the election of 1994, which was intended to mark a democratic beginning for the country, the new government began the process of trying to undo the structures, systems and underlying social architecture that decades of discriminatory governance had created. The complicated role of organized criminal networks and their presence in and influence on illicit markets in the country – one that pre-existed the post-apartheid period – began to be recognized.³⁸ Nigerian organized criminal groups and Chinese criminal syndicates appeared to have a well-established presence and were considered to be playing a fundamental role in the rapidly expanding synthetic drug environment that emerged as South Africa transitioned to democracy.³⁹ Furthermore, and in a strange twist, it was a marine snail that would become a fundamental driver of the rapid expansion of synthetic drug production during this transition.

The abalone effect

Prior to South Africa's 1994 democratic transition, the poaching of marine species in the country was negligible.⁴⁰ This began to change in the early 1990s. In an effort to transform the coastal fishing industry, the new post-apartheid government tried to create a more equitable licensing and catch quota scheme.⁴¹ As a result, enforcement efforts against poaching were significantly expanded, penalties were increased, and special environmental courts were established to prosecute offenders.⁴² The move had unintended consequences, favouring newcomer ('outsider') commercial fishing operators and further marginalizing local traditional small-scale fishing operators. It also delegitimised the efforts of state authorities in the eyes of coastal Cape communities.⁴³ As a consequence, local livelihoods that had relied extensively on the practice of small-scale fishing were threatened.⁴⁴

Poaching increased. Illicit catches of abalone and crayfish grew as fishers undertook to operate outside the confines of a system that they saw as being both corrupt and prejudicial.⁴⁵ In a few short years, the poaching of abalone became a lucrative, organized criminal enterprise that has been described as the 'organized pillage of a high-value resource'.⁴⁶ Cape gangs moved in to dominate what had become a multi-million dollar illicit trade.⁴⁷ Chinese syndicates, which had been embedded in the country since at least the early 1970s, dominated the growing market for this illicitly harvested abalone.⁴⁸ A barter economy arose between the gangs and their Chinese buyers, thereby eliminating the need for exchanges of large amounts of cash.

Chinese syndicates traded the precursor chemicals necessary to produce methaqualone and, in return, received abalone from the Cape gangs. These chemicals – difficult and expensive to obtain in South Africa – were unregulated, and easily and cheaply obtained by the Chinese. The abalone, so easily harvested and acquired by the Cape gangs, was a high-priced Asian delicacy that could be smuggled out along existing routes in neighbouring countries and sold by the Chinese syndicates at a significant profit in Hong Kong.⁴⁹ It was a mutually beneficial arrangement for all sides, and one that contributed both to the expansion of methaqualone in South Africa as well as the introduction of domestic methamphetamine production.

Meth is thought to have emerged in the Western Cape in volume in 1997. The first meth laboratory was seized in South Africa in 1998, barely a year after the use of meth was first detected in Cape Town.⁵⁰ Soon its

domestic production and use expanded alongside the growth in the illicit abalone trade between South African and Chinese organized criminal groups.⁵¹

To understand just how quickly meth began to take over the South African synthetic drug market as a result of this entwined precursor-abalone trade relationship, we can look to an event that occurred in March 1998. That month a Chinese shipment containing 20 metric tonnes of ephedrine bound for South Africa was seized by law enforcement authorities.⁵² In the previous year the total amount of ephedrine seized globally was only 8 tonnes.⁵³ This 1998 seizure was significant. With ephedrine being a principal precursor chemical in the production of methamphetamine, 20 tonnes could have produced a staggering 13 tonnes of methamphetamine.⁵⁴ The industrial production of South African meth had begun.

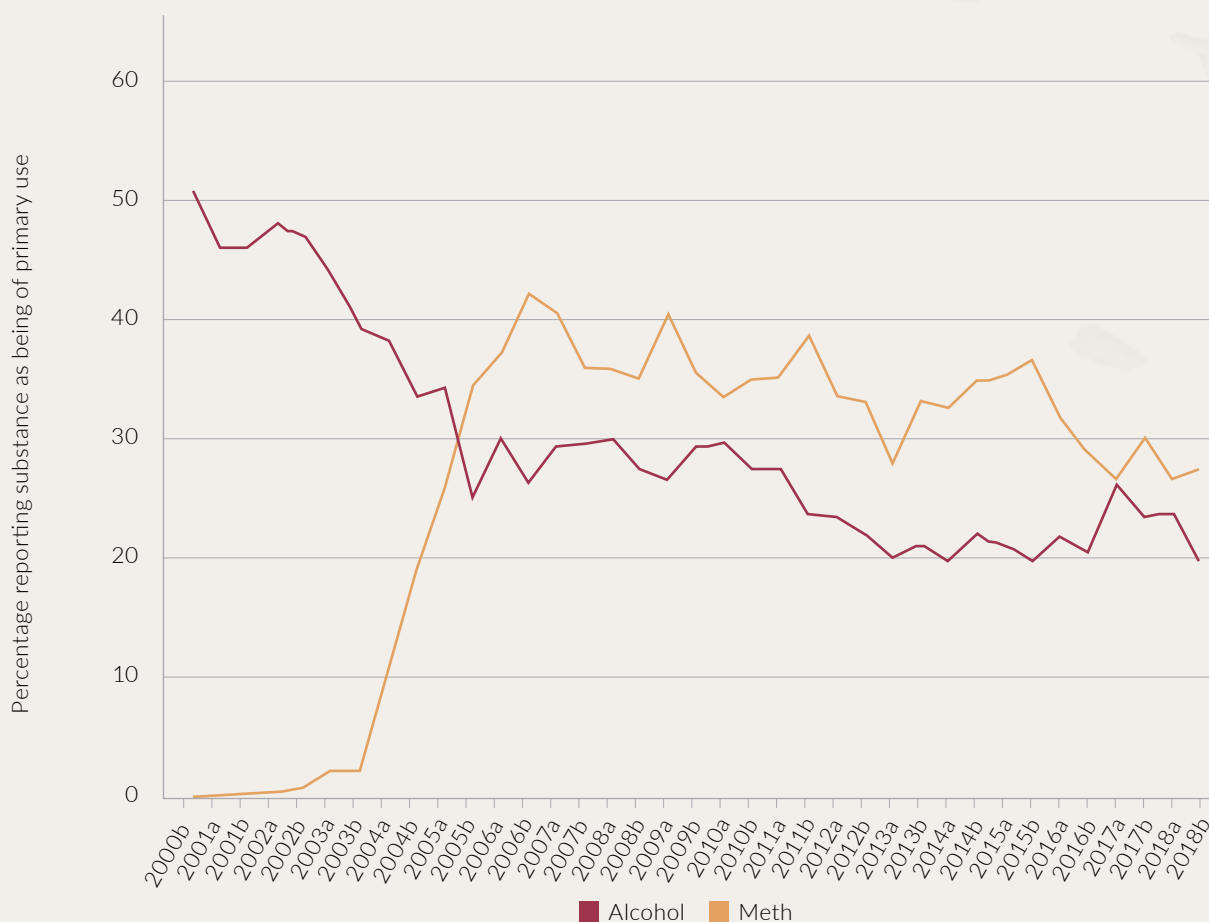


FIGURE 2 Tracking meth and alcohol as reported primary substances of use (by percentage) in Western Cape province, South Africa, 2000–2018.

SOURCE: Siphokazi Dada et al (2019) Monitoring alcohol, tobacco and other drug use trends in South Africa (July 1996 to December 2018), South African Community Epidemiology Network on Drug Use (SACENDU), 22, 1 (2019), 15

By 2005, eight years after its appearance, meth became the primary substance of use among all PWUD in the Western Cape province, surpassing methaqualone, cannabis and even alcohol.⁵⁵

Despite this fact, few people were arrested for meth possession. This may have been because the drug was regarded as a fringe product at the time, based on an incorrect assumption that it was used only among the marginalized populations of the coastal Cape. It was not until four years later, in 2009, that there was a considered law enforcement campaign aimed at prosecuting and imprisoning meth users and traders. This was the same year (2009) that the South African Police Service (SAPS) reported making its first significant meth seizures.⁵⁶ While there had been a few seizures during the previous eight years, this involved

only a total of five seizures across the entire period.⁵⁷ In 2009 alone, 9 340 meth cases were examined by South African forensics in anticipation of prosecution.⁵⁸ At the same time, there began a decline in the number of meth laboratories detected and seized.⁵⁹

By 2010, meth had migrated to the Eastern Cape province and quickly became the most used substance there, just as it had in its Western Cape neighbour.⁶⁰ By this time meth had overtaken both methaqualone and crack cocaine as the drug of preference along the Cape coastal shores of South Africa and its sale and use started appearing in the drug markets of neighbouring inland provinces and beyond.⁶¹

In 2011, the first meth laboratory outside South Africa was reportedly seized in Nigeria.⁶² This was a significant event, in that it symbolized the initiation of indus-

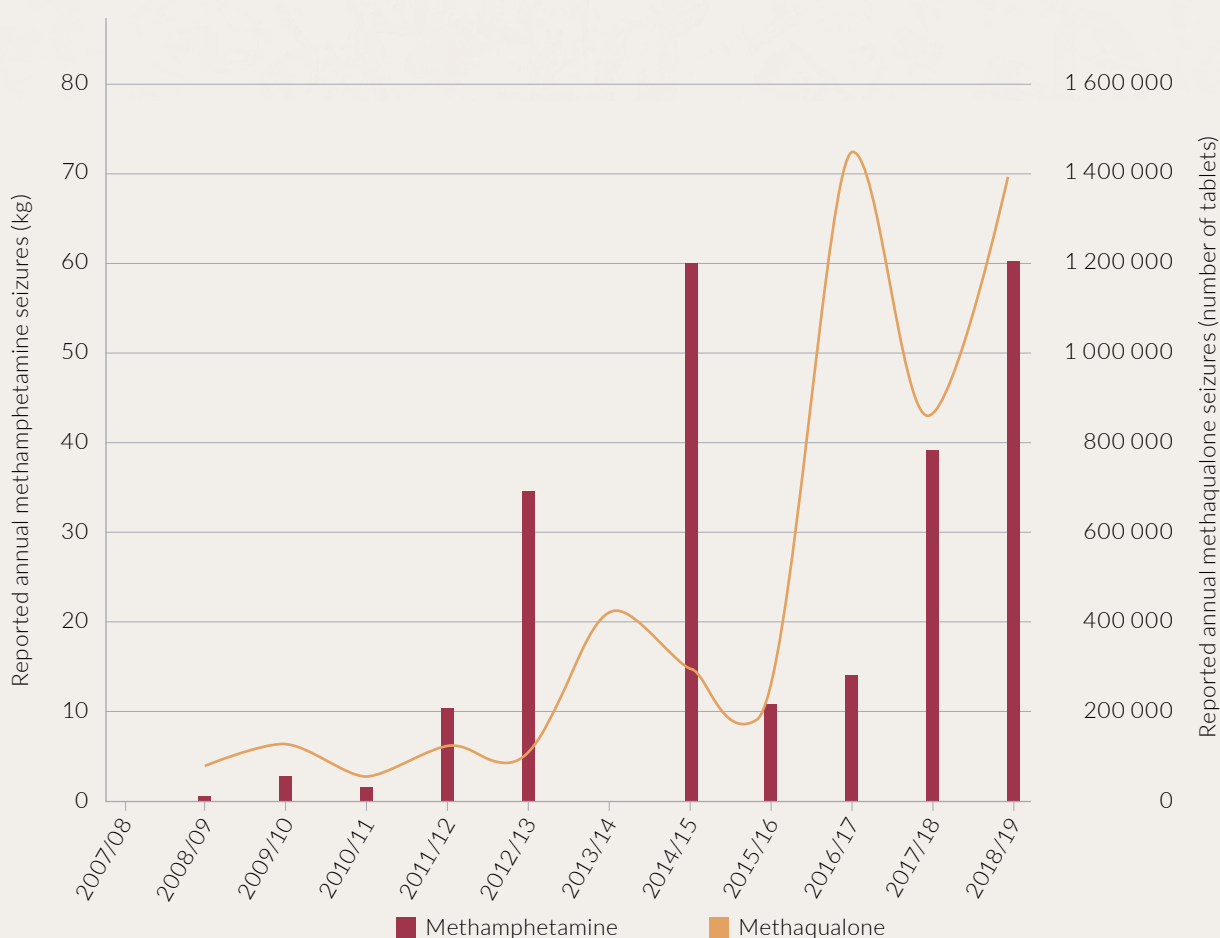


FIGURE 3 Annual seizures of methamphetamine ('tik') and methaqualone ('Mandrax'), as reported in SAPS annual reports, 2007/2008 to 2018/2019.

SOURCE: SAPS annual reports 2007/2008 to 2018/2019

trialized meth production in Nigeria,⁶³ and appeared to demonstrate a move by Nigerian criminal groups to produce their own meth supplies rather than playing a more traditional intermediary role within continental markets, which involved distributing meth produced by other syndicates. It indicated they were moving up the supply chain in Africa, and shortening it as well.

A year later, in 2012, the first Latin American-influenced meth laboratory was seized. This also occurred in Nigeria.⁶⁴ It involved four Bolivian technical experts who were teaching local Nigerians how to make meth and, it was suspected, to make it in higher purity and higher volume batches.⁶⁵ In the years since this event, an additional 18 clandestine methamphetamine laboratories have been detected

and interdicted in Nigeria. The country's role as a significant destination and trans-shipment point for methamphetamine precursors from India and China (e.g. ephedrine) expanded significantly over this period.⁶⁶

In 2016, a Mexican meth 'superlab', capable of producing up to 4 tonnes of meth a week, was seized in Nigeria.⁶⁷ Apparently organized in the same way as the earlier 'Bolivian lab' arrangement, this facility suggested that Mexican cartels were also expanding.⁶⁸ Organized to produce high volume and high purity meth batches, the target market allegedly was East Asia.⁶⁹ However, it is plausible that Nigerian interests saw this high volume operation as a key to their dominance of the continental meth trade in which they were already so intricately involved. This development has been described as 'alarming'.⁷⁰

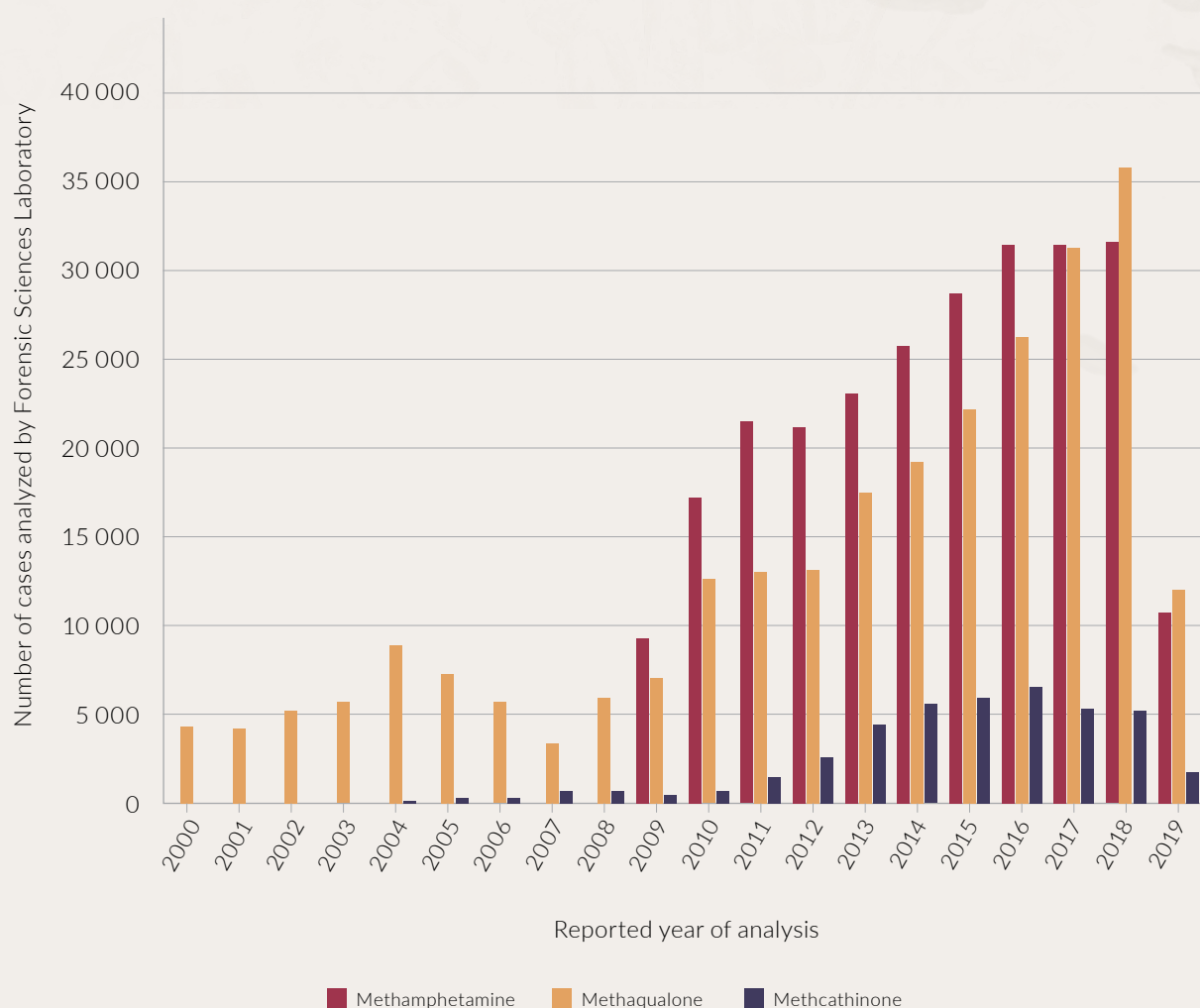


FIGURE 4 Annual number of cases where forensic analysis was undertaken for prosecution (by drug type) in South Africa, 2000–2019.

According to interviews with PWUD conducted as part of this research, it was at this time (2016) that a new so-called ‘Mexican meth’ supply began to emerge in the markets of Cape Town and Johannesburg, driven largely by Nigerian distributors. Consisting of large, translucent crystalline shards, which were perceived to be of higher quality than the domestically produced competitor product, this meth quickly became the preferred variety over the next four years. Interviews indicated that this new supply chain of meth expanded until it was available in South Africa’s nine provinces and in neighbouring countries.

The emergence of a Nigeria-based meth supply chain to southern Africa is supported also by external analysis. The United Nations has reported that the domestic production of meth in South Africa has been in decline since 2008, correlating with a decline in the importation of meth precursors to the country.⁷¹

It suggested the reason for this decline was a shift to an external source of supply, and it identified West Africa as the probable source.⁷²

Following analysis of interdictions in 2015, INTERPOL confirmed the existence of a meth trafficking route originating in Nigeria and extending to South Africa.⁷³ In April 2016, the Chairman of the Nigerian Drug and Law Enforcement Agency (NDLEA) in Nigeria, Col Muhammad Mustapha Abdallah, declared, ‘Nigeria methamphetamine is now competing with others in Asia and South Africa markets.’⁷⁴ Abdallah indicated that unless ‘drastic measures’ were taken, the rise of industrial-scale meth production in Nigeria would see the country move into the global spotlight as a significant meth source.⁷⁵ His prediction appears to have come to be, as these analytical conclusions on Nigerian-based meth production and supply have been validated by this GI-TOC meth retail market fieldwork.

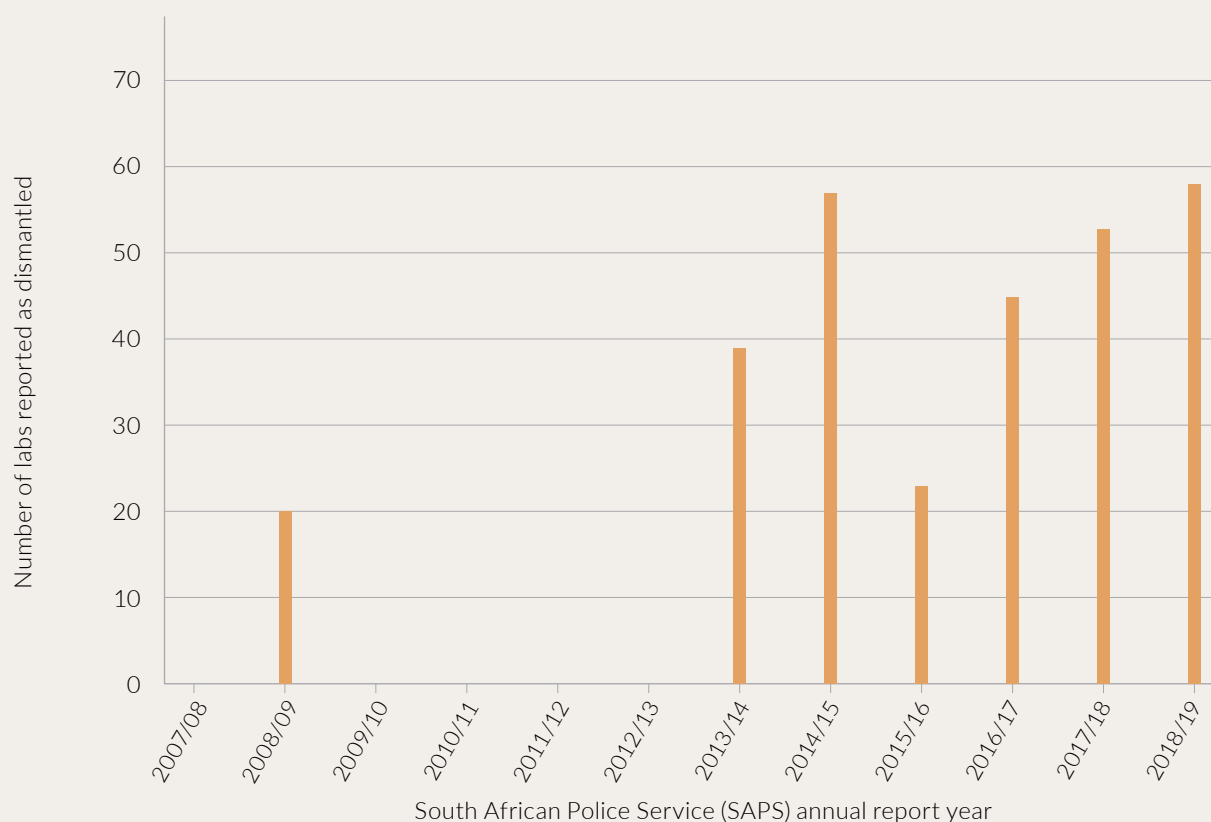
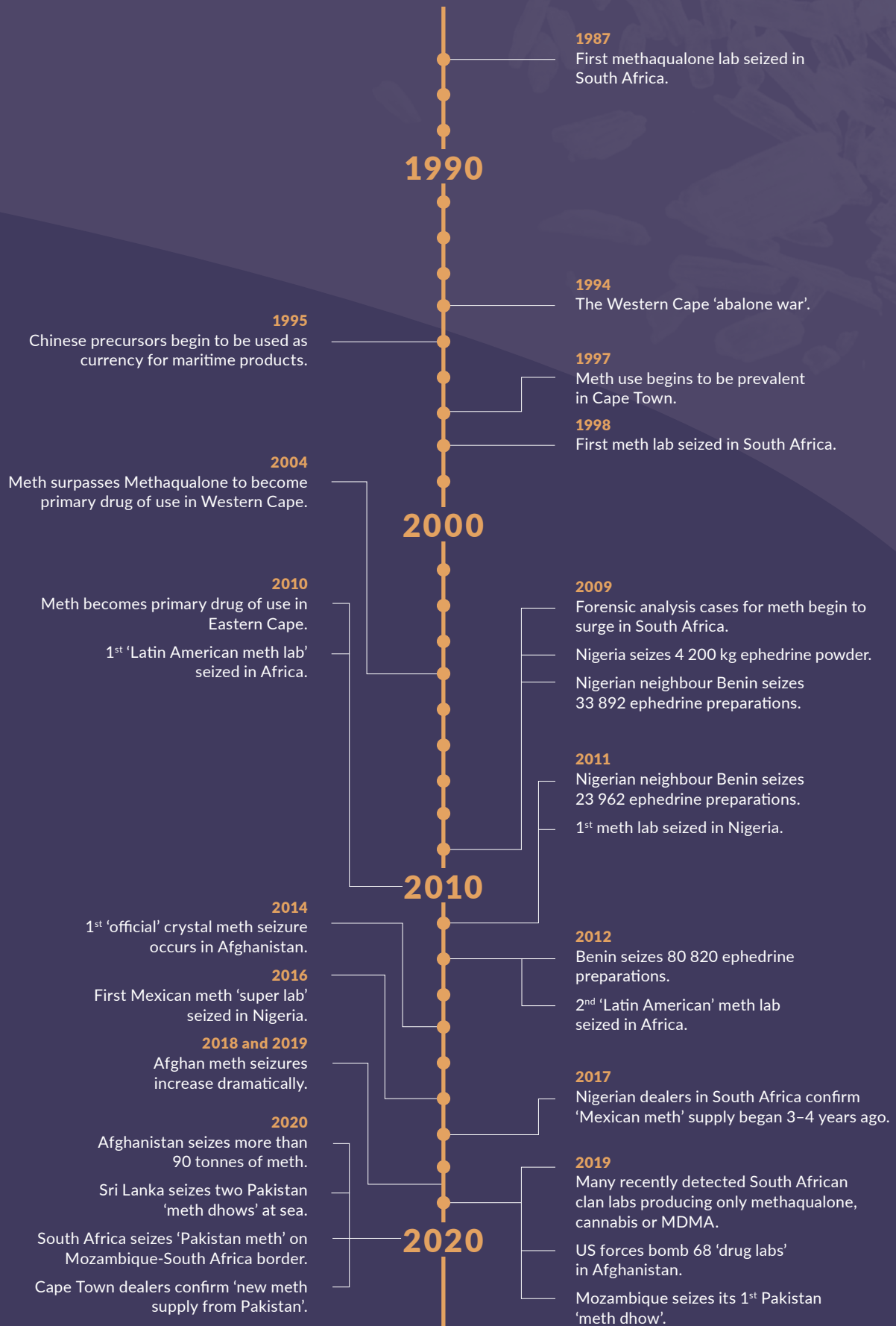


FIGURE 5 Annual number of clandestine drug labs reported as dismantled in South Africa, 2007/2008 to 2018/2019.
SOURCE: SAPS annual reports 2007/2008 to 2018/2019


EVOLUTION OF THE METHAMPHETAMINE TRADE IN SOUTHERN AFRICA





DOMESTIC METHAMPHETAMINE MARKETS IN EASTERN AND SOUTHERN AFRICA

Loading a dhow in Zanzibar harbour. Meth has been reportedly arriving by sea in Zanzibar alongside Afghan heroin since at least mid-2019. © Bojan Breclj/Corbis via Getty Images



Of the 10 research countries and the 54 research sites identified across the proposed regional research geography, fieldwork could be completed only in five countries and 28 fieldwork sites to a degree that enabled baseline observations and market analysis to be carried out. Work in the remaining five countries and 31 fieldwork sites was interrupted in one way or another, including by COVID-19 lockdowns, the dispersal of informants due to security protocols (including police violence), and an organizational decision to cease fieldwork altogether in several locations in order not to place at any additional risk the health and well-being of both researchers and their potential informants.

In several instances, the field researchers, in partnership with local PWUD and other drug market informants, monitored the environmental situation at research sites, in particular the COVID-19 response measures undertaken by authorities (and, in some cases, by organized criminal groups themselves). The purpose of these observations was to understand how these often socially dispersed measures affected the local drug market. Some of the findings are discussed in this paper, while the data also informed an earlier dedicated piece of research on the coronavirus and drug markets.⁷⁶

Field research has resumed in each of the target research countries. Expanded datasets continue to be collected to enable a time-series dataset, complemented by qualitative interview data and in-depth economic analysis of market financial data, to be compiled. As the market analytical data on this region was presented in the GI-TOC's recent heroin market report,⁷⁷ the analysis in this report will contribute also to datasets to be included in a forthcoming GI-TOC regional drug market valuation research publication.⁷⁸

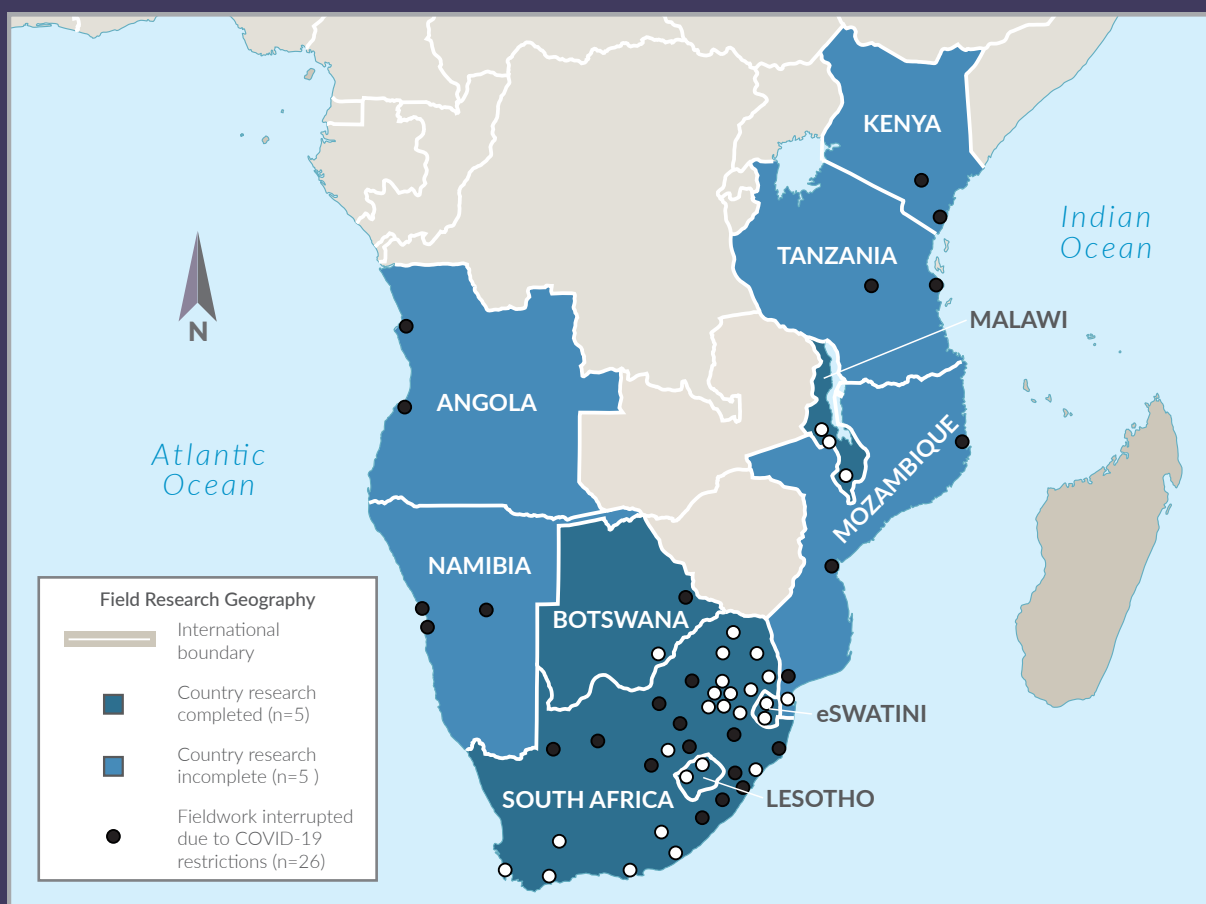
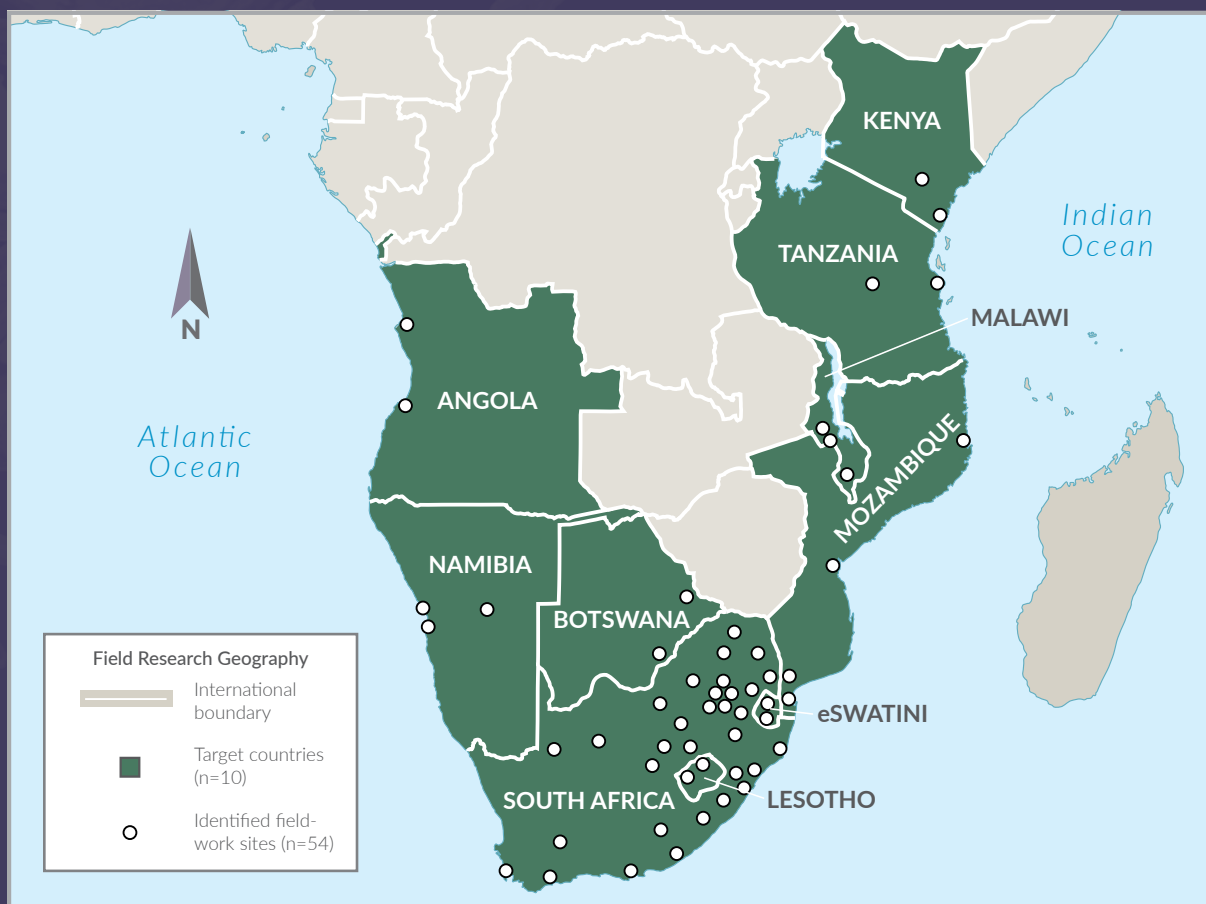


FIGURE 6 Field research locations and the impact of COVID-19.



CHARACTERISTICS OF THE METH MARKET IN **SOUTH AFRICA**

Price

Two approaches were used to collect retail price data for meth in South Africa. The first involved a dataset gathered by the SAPS. This forms one component of a programme of cooperation between the GI-TOC and the SAPS and shapes the foundation of a three-year programme of support that aims to build and maintain a national drug price monitoring database for the country. In South Africa, as in the rest of the region, little is known about the market system supporting and facilitating the production, distribution and use of meth and other illegal substances.

As is the case in all drug environments, law enforcement interdiction efforts may provide sporadic glimpses of the domestic market system, but there is no holistic understanding of how meth is sold, in what quantities it is sold, what prices are paid, how prices vary within and between markets, and how the distribution processes are organized. Gaining a better understanding of the contextual and structural characteristics of South African drug markets grounds this relationship with the SAPS, and it underpins the reasoning behind the regional research in this report.

In this regard, the SAPS, in conjunction with divisional representatives in 33 cities across the country, organized the collection of retail meth price data during four quarters of 2020: December (2019) to February (Q1), March to May (Q2), June to August (Q3), and September to November (Q4). The data was aggregated and analyzed, and provincial minimum and maximum ranges and means were produced in South African rands per gram.

According to these law enforcement-derived pricing datasets, the domestic retail price of a gram of meth in the country for the first quarter (the period ending February 2020) ranged from a low of R200 (Gauteng) to a high of R555 (Northern Cape), with a national mean retail price of R343 per gram. Price datasets for the second quarter (the period ending May 2020) were incomplete due to the COVID-19 pandemic and the priority that law enforcement had to give to this emergency. This relegated the collection of meth price data (a clear non-priority in this crisis) to the sidelines of their work.

Price data for the second quarter could be recorded in only five of the country's nine provinces. Prices ranged from R225 (Western Cape) to R400 (Mpumalanga). Of note was the fact that three of the provinces reported an increase in the mean meth price over this period (Limpopo +R17, Gauteng +R16 and Eastern Cape +R6). The remaining two recorded a mean retail price that was lower in the second quarter than it was in the first: Western Cape –R8 and Mpumalanga –R33. The national mean price for the second quarter (R321) was lower than that of the first quarter by R22.

In the third quarter of analysis (ending August 2020), the retail price of a gram of meth ranged from a low of R250 (Western Cape) to a high of R350 (Northern Cape, Mpumalanga, North West, Eastern Cape), with a national mean of R316 per gram. In the fourth quarter (ending November 2020) the price of meth ranged from a low of R260 (Western Cape) to a high of R350 (Free State, Mpumalanga, North West).

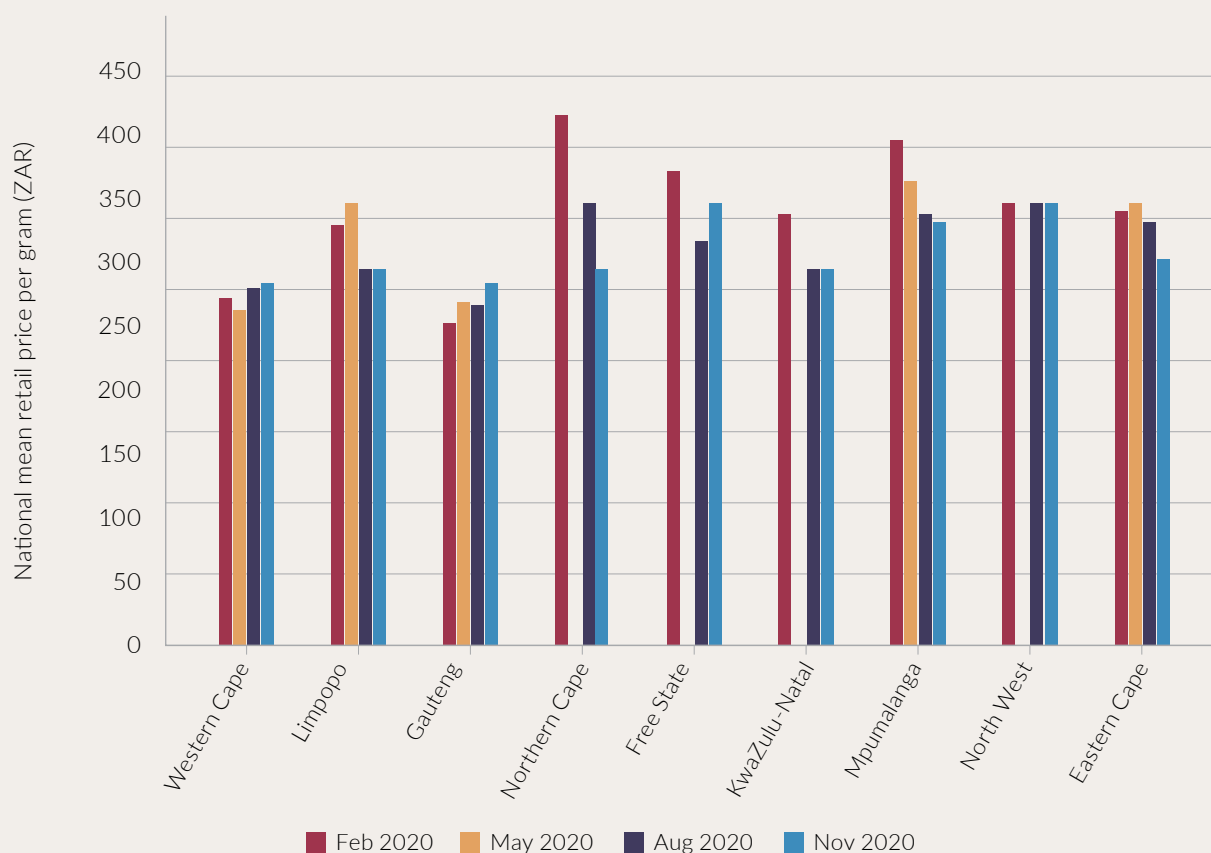


FIGURE 7 Mean methamphetamine price (ZAR/g) by South African province for 2020.

SOURCE: GI-TOC and SAPS

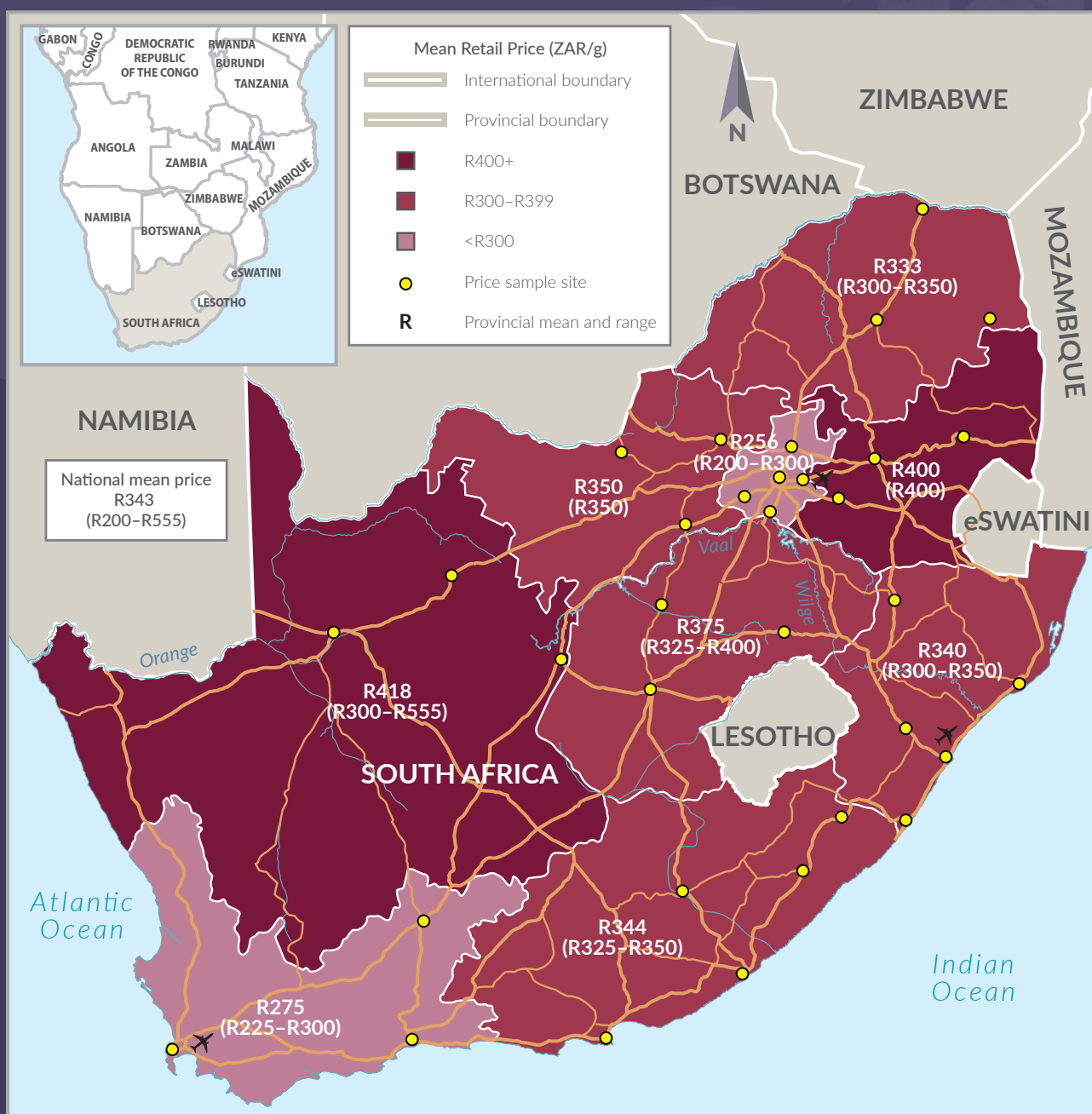


FIGURE 8 Mean retail price of methamphetamine (ZAR/g) by province, February 2020.

SOURCE: GI-TOC and SAPS

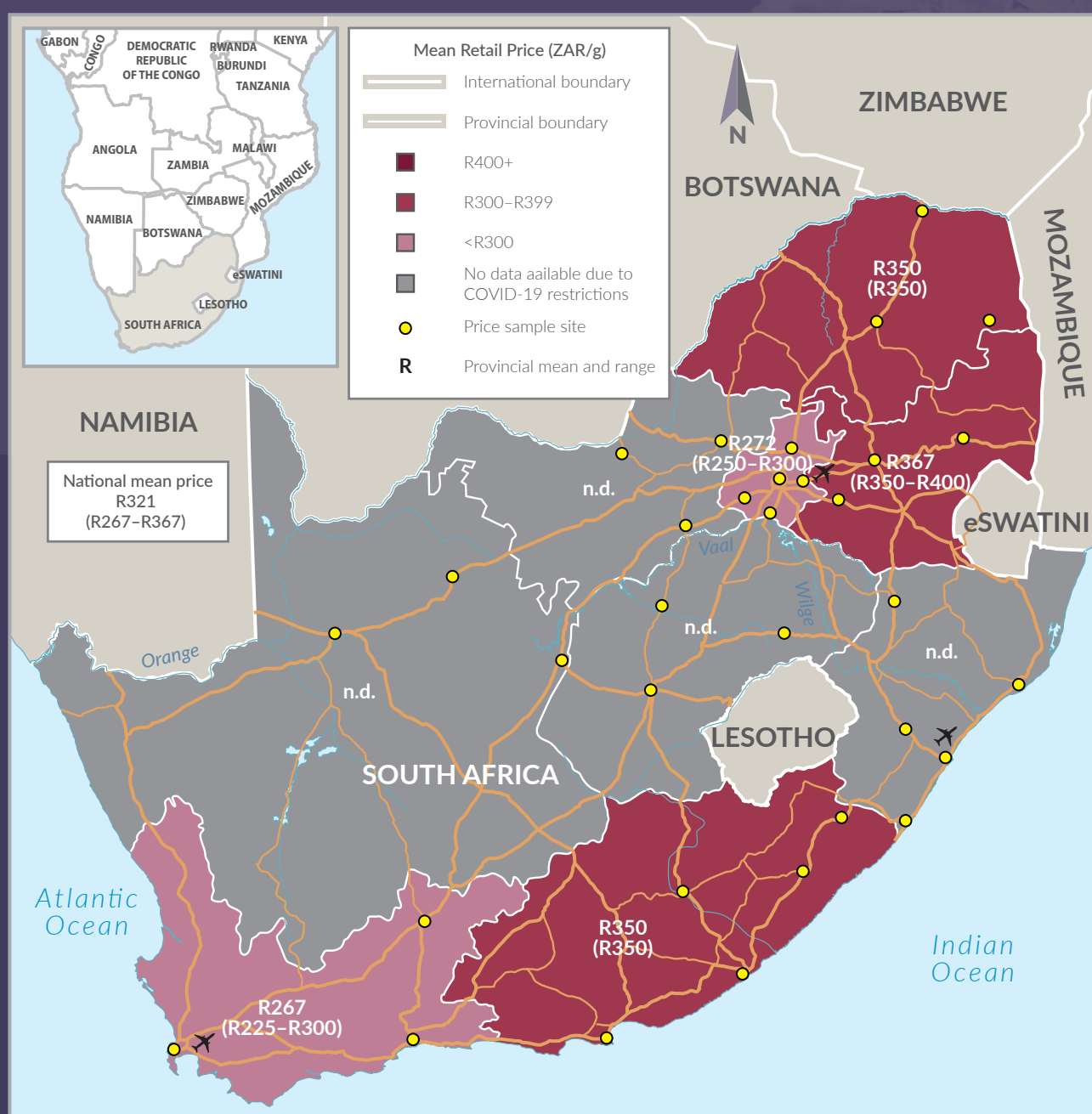


FIGURE 9 Mean retail price of methamphetamine (ZAR/g) by province, May 2020.

SOURCE: GI-TOC and SAPS

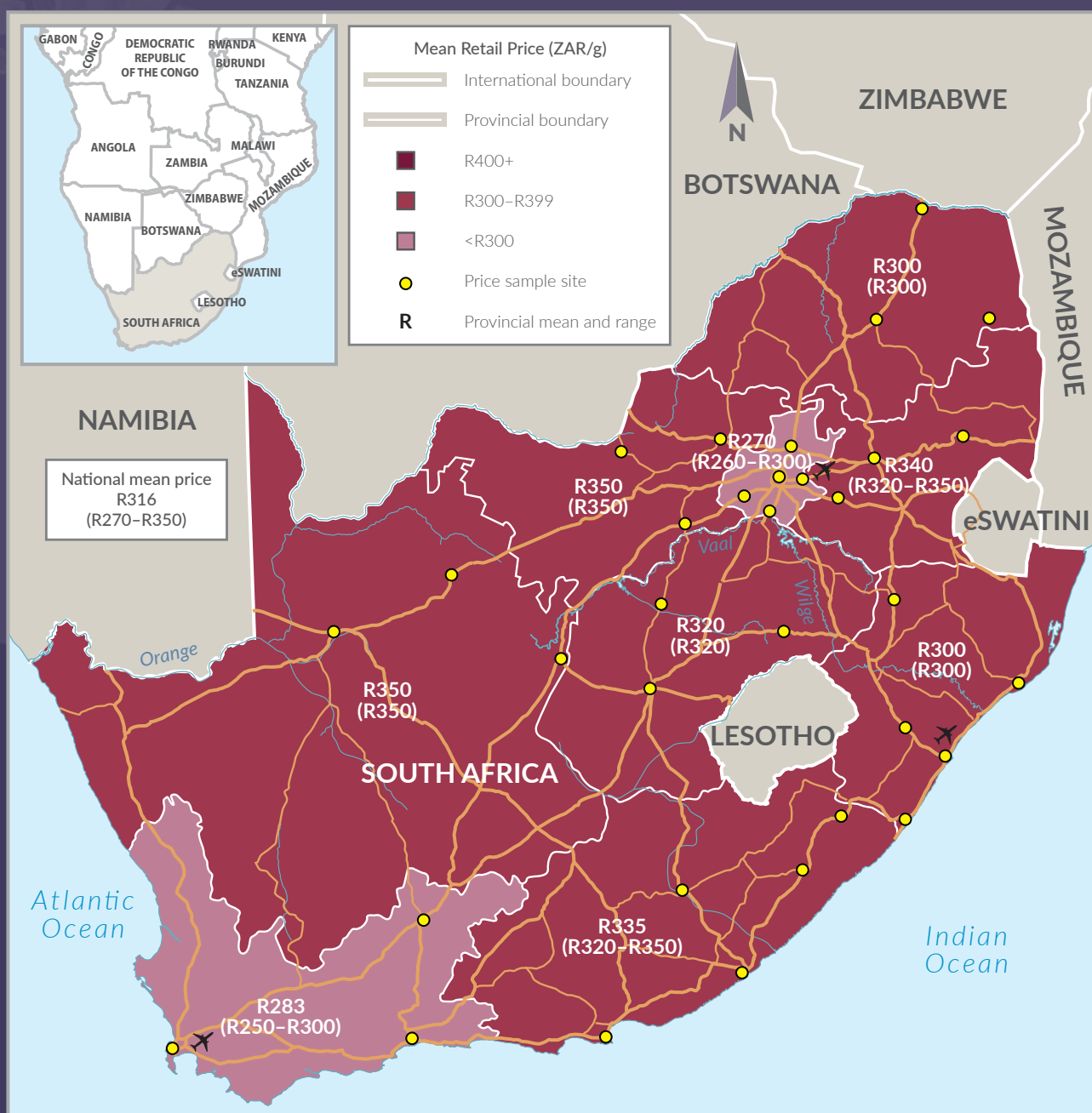


FIGURE 10 Mean retail price of methamphetamine (ZAR/g) by province, August 2020.

SOURCE: GI-TOC and SAPS

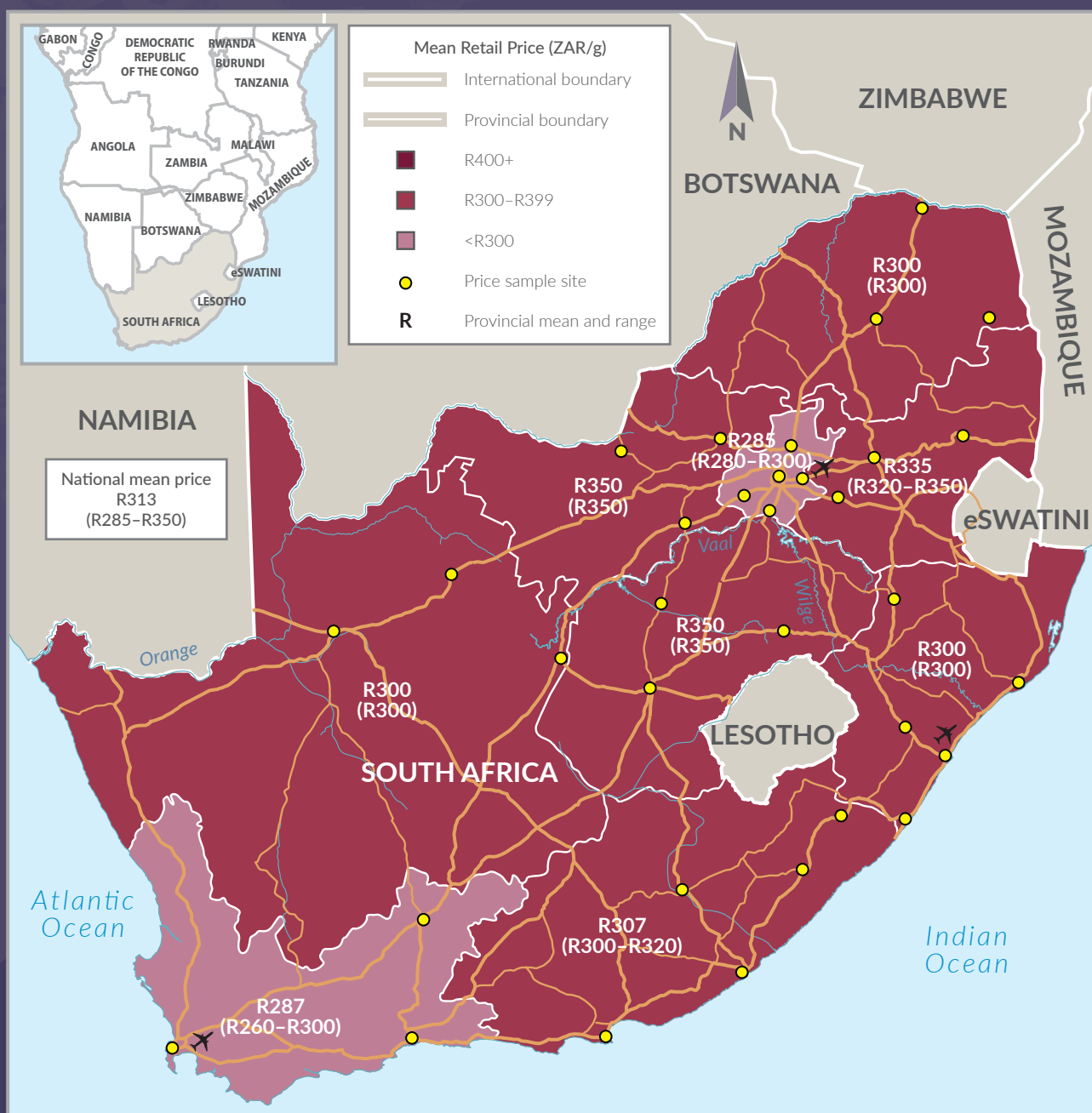


FIGURE 11 Mean retail price of methamphetamine (ZAR/g) by province, November 2020.

SOURCE: GI-TOC and SAPS

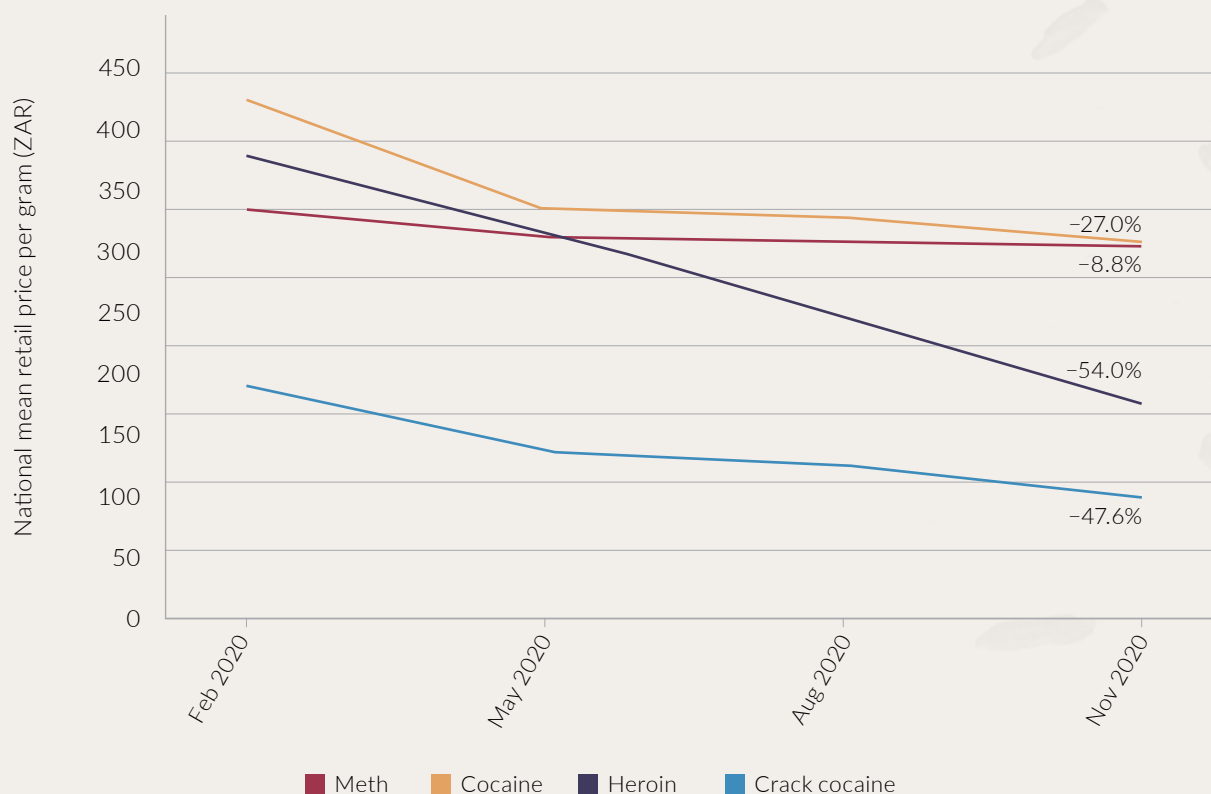


FIGURE 12 Mean national retail prices for methamphetamine, heroin, cocaine and crack cocaine in South Africa, Q1 to Q4 2020.

SOURCE: GI-TOC and SAPS

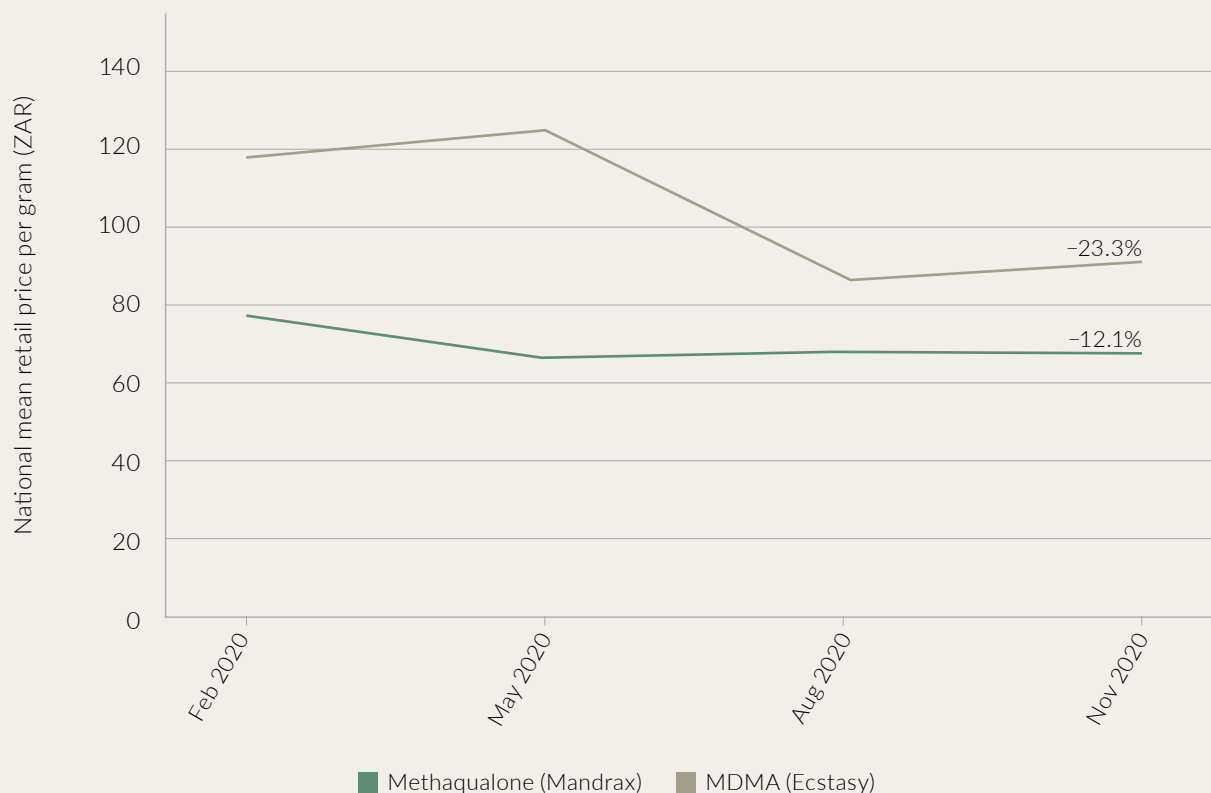


FIGURE 13 Mean national retail prices for other synthetics in South Africa, Q1 to Q4 2020.

SOURCE: GI-TOC and SAPS

For additional reference, the retail price data for meth can be partnered with data collected during the same periods for other illegal substances available for sale in each of the country's provinces. By examining this data, we can see how the retail market price range and mean price for meth relates to other competitor products across South Africa's broader drug marketplace.

There are three initial observations that can be drawn from the quarterly provincial retail price data for meth in South Africa:

- n Throughout the course of the year, the mean national price for a gram of meth decreased from R343 at the beginning of the year to R313 at the end – a reduction of R30.
- n Generally, the mean price of meth remained constant throughout the year. While the average retail price for all other illicit drugs decreased in the South African marketplace over this period

– with some seeing price reductions of nearly half (e.g. heroin powder and crack cocaine) – the mean price of meth showed the least amount of annual change, decreasing by only 8.8 per cent in its mean price over the course of the year. This is true even when compared to other synthetics that, like meth, are manufactured also in South Africa (e.g. Mandrax and Ecstasy).

- n The price range variation for a gram of meth narrowed significantly throughout the year. The retail price ranged from R200–R555 in the first quarter, which was a variation of R355. By the end of the year however, this variation had decreased to R285–R350, or a difference of only R65. This was the result of a sharp fall in the ceiling price and a rise in the floor price of meth across the country, influenced by a significant tightening of retail price ranges in the provincial meth markets of Gauteng, KwaZulu-Natal, Limpopo and the Northern Cape.

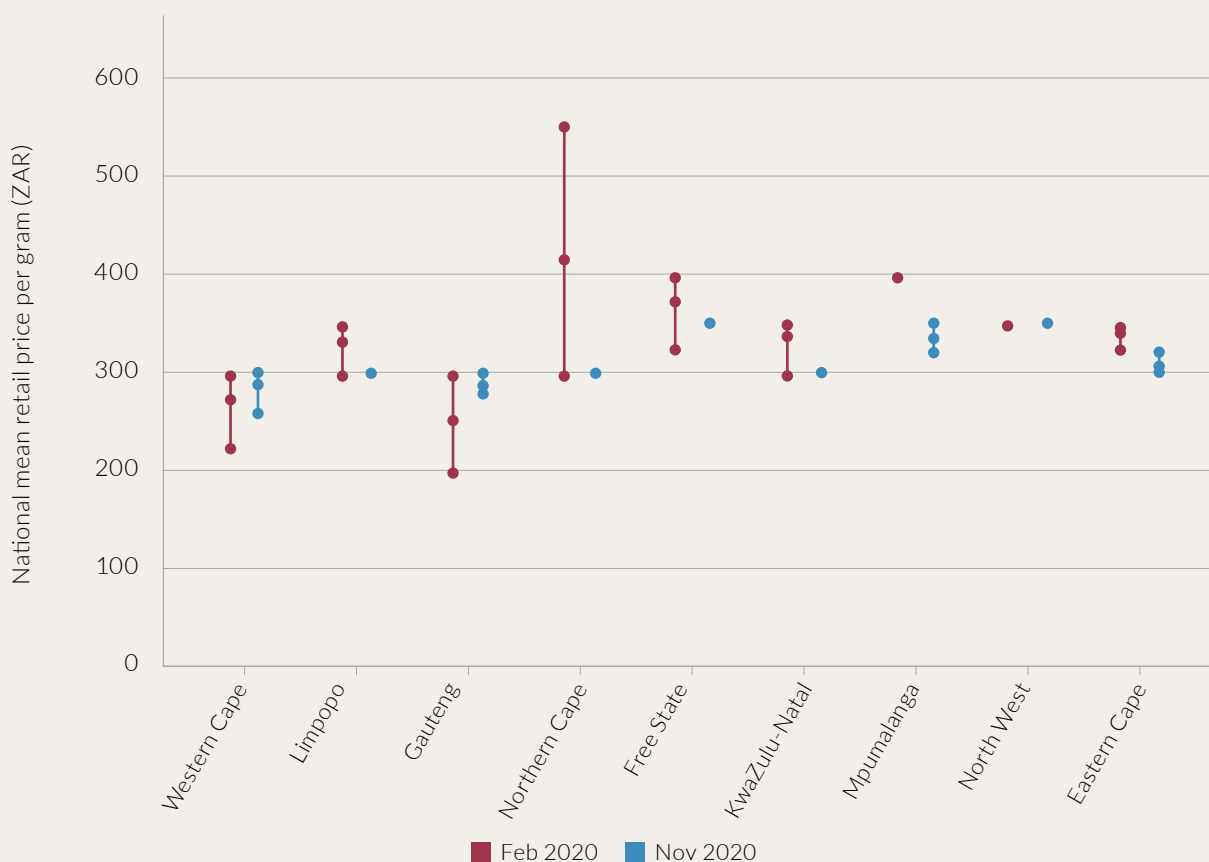


FIGURE 14 Mean retail price and range (ZAR/g) for crystal methamphetamine ('tik') by province in South Africa, February and November 2020.

SOURCE: GI-TOC and SAPS

In many of South Africa's provincial retail drug markets, the gram is the retail measure for the sale of meth. It can be sold to consumers in bulk amounts of several grams or more, often with a discount for larger volumes (e.g. 10g or more); or, it can be sold in varying amounts of less than a gram. In some places, these smaller (i.e. less than a gram) weights are referred to as points, quarters or halves. For example, there are 10 points to a gram and each point is supposed to be roughly one-tenth of a gram (100mg) in weight. Quarters refer to a quarter gram weight (250mg), and halves refer to a half gram weight (500mg).

While there is a general standardisation of meth pricing per gram in geographic regions, in South Africa meth purchased in a volume of less than one gram tends to be sold in packets defined by price point rather than by weight point.⁷⁹ These 'less than one' gram amounts are priced at a premium and would therefore be valued at a rate per gram that is higher than the average full

gram price point. For example, PWUD can purchase an amount of meth for as little as R20 in some places, a price point that is aimed at the poorest and most marginalized of users. This has become more evident in the wake of long COVID-19 lockdowns and state security enforcement of social distancing and quarantine, particularly for those who rely on street hustling or some other humble activity to earn money for their meth hits, but were constrained in their livelihood efforts by security force pressures during lockdown. The most common price point in retail markets is the R50 packet. By weight, this would equate roughly to one-eighth of a gram, thus making its relative price per gram an elevated R400 instead of the more usual R225–R300 (in the Western Cape).

On the other hand, the purchase price decreases significantly when meth is bought in amounts greater than one gram. These bulk purchase price discounts range from R175/g for amounts of 10–20g down to

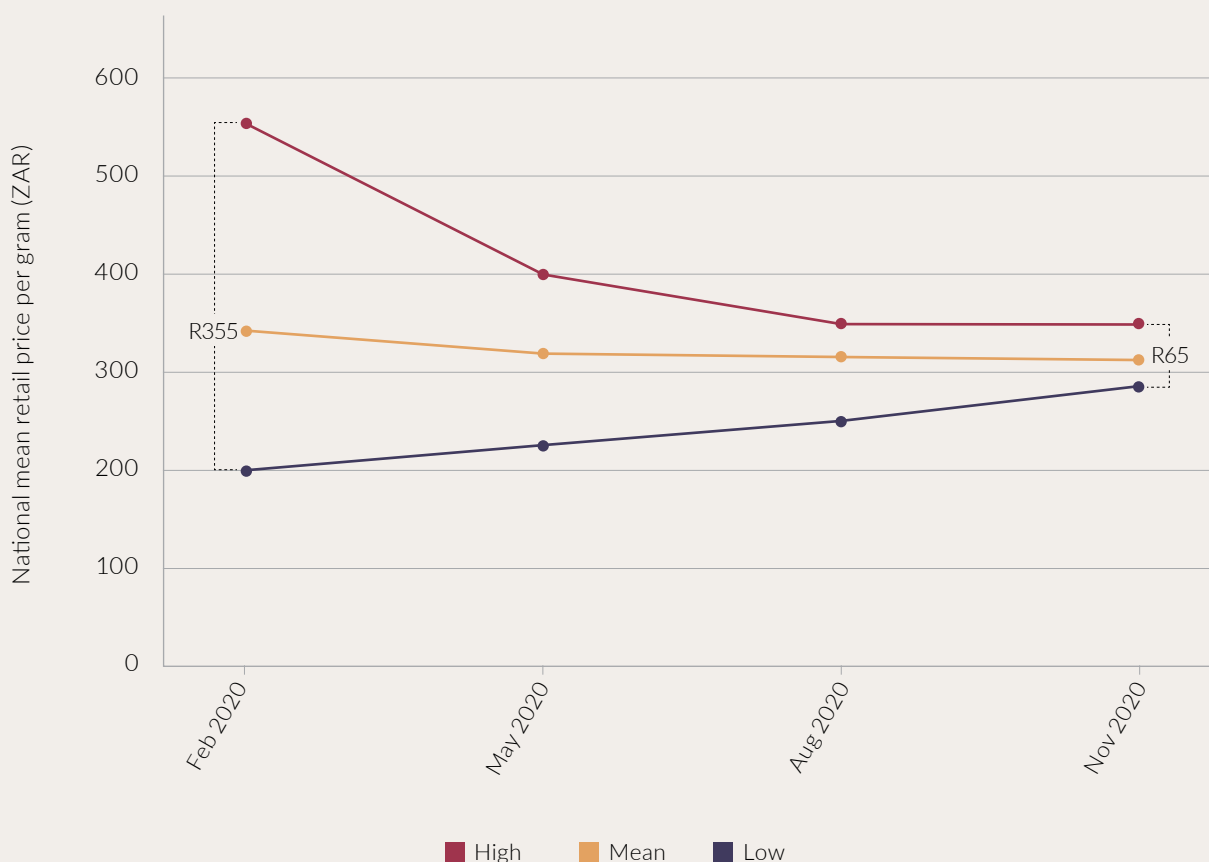


FIGURE 15 Quarterly change in national retail price range and mean price (ZAR/g) for crystal methamphetamine in South Africa, 2020.

SOURCE: GI-TOC and SAPS



▲ In coastal regions of the Western Cape, poached abalone has long been supplied to Chinese crime syndicates in return for meth precursors.
© Shaun Swingler

R100/g for amounts of 100g or more. This would place the retail bulk purchase price for one kilogram at about R100 000, an extraordinary amount given the wholesale price paid by distributors for one kilogram of meth imported from Maputo (roughly R10 000).⁸⁰

Retail	10–20g	20–50g	50–100g	100+g
R250–350	R175/g	R150/g	R125/g	R100/g

FIGURE 16 Bulk purchase price list for methamphetamine in Western Cape, South Africa, 2020.
SOURCE: GI-TOC and SAPS

Although the price of meth differs in value across different regions, it is relatively stable and consistent within individual regions. This was true in the larger markets during the strict COVID-19 lockdown, with price variations occurring briefly before they returned to pre-lockdown rates or less. Further, the perceived quality of meth in South Africa is relatively consistent, and certainly more so than was determined for heroin.⁸¹ This most likely bears some relation to the limited predominant supply channels and the global nature of commodity production and distribution. This has led to a domestic meth market that appears to be reasonably well regulated by suppliers, uniform in terms of market distribution, and one that sees retail price point controls imposed on it in a similar manner to those found in other cartel market control situations.⁸² This stability would point also to a meth retail market that is financially sound, structurally embedded and mature.

	Average price (ZAR/g) for week ending on:						
	Base	27 Mar	3 Apr	10 Apr	17 Apr	24 Apr	1 May
Heroin	200	210	265	280	300	240	200
Meth	300	300	300	300	330	350	300
Cocaine	300	300	300	300	300	390	320

FIGURE 17 Retail price of illicit drugs in Cape Town in the COVID-19 pandemic early lockdown period, March to May 2020.
SOURCE: GI-TOC and SAPS

Distribution

There is no place in South Africa where good quality meth is not available, although its availability may be limited at times in the more sparsely populated areas of the country, such as Northern Cape Province. Meth originated in the maritime geography of the Western Cape, particularly in the coastal regions outside Cape Town where it emerged primarily from the barter arrangement between Cape gangs and Chinese crime syndicates exchanging cheaply acquired precursor chemicals for poached abalone, described in detail in an earlier section. This barter arrangement enabled the Cape gangs to exercise a monopoly over the province's illicit synthetic drug trade.⁸³

Today the greater Johannesburg area of Gauteng Province remains still the core production area for Chinese syndicate-supported meth. However, the number of clandestine domestic meth laboratories detected by the SAPS has decreased significantly over the past six years. Further, synthetic drug laboratories seized more recently tended to be producing meth-aqualone rather than meth. Research indicates the production of MDMA and methcathinone is also being carried out in clandestine laboratory facilities in South Africa, although these do not necessarily appear on the SAPS seizure list.⁸⁴ This apparent reduction in domestic meth laboratory seizures appears to correspond with information from suppliers in Gauteng and Western Cape who indicate that Chinese-supported meth production has declined in South Africa in recent years. Instead, these syndicates appear to have shifted their focus to the more easily managed provision of chemical precursors for this production to West African and, more specifically, Nigerian, meth production and distribution syndicates. This gradual decrease in domestic South African meth manufacture, and its apparent shift to industrial production locations in West Africa that are supplying the South African meth market, is a finding supported also by the UN, United States and INTERPOL resources.⁸⁵

Nigerian syndicates, which have long been the intermediary between Chinese-supplied meth producers in Gauteng and Western Cape and the many Cape gang and other unaffiliated distributors in these and other areas, appear to have shifted their focus in the last four years to their own domestic production of

meth in Nigeria itself, allegedly founded in cooperation with at least one of the Mexican cartels. High-quality Nigerian-made crystal meth has flooded the South African market and is known among PWUD as 'Mexican meth'. This has been the case for at least the past four years (since 2016), according to Nigerian and other local distributor informants. This timeline remains consistent also with United Nations and INTERPOL projections,⁸⁶ as well as with the assessment of Nigeria's NDLEA.⁸⁷

This Nigerian-made Mexican meth appears to enter South Africa directly by maritime and overland routes via Angola and Namibia (particularly via Walvis Bay port and the Trans-Kalahari corridor). Air routes via Lubumbashi in the Democratic Republic of Congo (DRC) to Johannesburg also have been indicated. Transit air routings through Kenya (Jomo Kenyatta International airport, Nairobi), as well as air and overland routings through Angola (Quatro de Fevereiro airport in Luanda), Namibia (Hosea Kutako International airport, Windhoek) and Mozambique (Maputo International Airport) also have been claimed. It appears that the importation of meth from West Africa to South Africa follows some of the same commodity supply chain routes used to move cocaine into the continent's southern region. Given the central role of Nigerian syndicates in the transit of cocaine from West African ports to transit and consumer market destinations in other parts of Africa, the likelihood of an operational overlap in these illicit commodity supply chains is high.

Since late 2019, a second competing international supply chain of meth is alleged to have emerged in South Africa's meth markets, particularly in the Western Cape region. This is a meth supply chain that interviewees are calling 'Pakistani meth',⁸⁸ and one that originates in the Afghanistan and Pakistan border region. The arrival of this meth supply appears to coincide with a significant shift to the production of meth in Afghanistan's opium poppy-growing south-west provinces along the borders with Iran and Pakistan.⁸⁹

The existence of this new Pakistan meth supply was confirmed by six Cape Town dealers in research conducted between June and August 2020 and reconfirmed with a different subset of seven importers and high-level distributors in October and November 2020. These interviews confirmed that the supply began

to arrive in late 2019. One informant, in describing this meth supply chain, stated that this Pakistani meth supply had 'hit the Cape big time'.⁹⁰ It appears to have arrived in tandem with Afghan heroin and is shipped to South Africa on the same vessels and along the same routings – and often in the same shipment – as Afghan heroin.⁹¹ With the cargo off-loading in both Zanzibar and northern Mozambique, these meth and heroin shipments are landing in both Zanzibar (Tanzania) and the Pemba-to-Nacala coastline of northern Mozambique. The meth is taken overland to South Africa from Mozambique in a similar routing and manner as that for heroin. Upon arrival, the kilogram bags are transferred by the importers to secondary suppliers for further distribution and retail sale. Chemical analysis conducted on samples of this new methamphetamine supply have confirmed its origin to be Afghanistan.⁹²

Thus, South African meth distribution is grounded in two major transnational supply chains of finished crystal meth – one originating in Nigeria and being imported by Nigerian syndicates, with a second originating in Afghanistan and being imported along traditional heroin routes through existing trafficking routes dominated by Pakistani (and probably Iranian) drug trafficking syndicates. A third, locally manufactured, supply linked to Chinese syndicate interests and originating in the greater Johannesburg area also serves domestic and regional markets, though its influence and production capacity has been in decline for several years.

Johannesburg and Cape Town remain the primary hubs for meth importation, production and distribution in South Africa. Primary infrastructural points include:

- OR Tambo International Airport in Johannesburg,
- the Port of Cape Town, and
- the land border crossings at Komatipoort (the border with Mozambique), and Pioneer Gate (Botswana) along the Trans-Kalahari Corridor.

Multiple smaller shipments make their way out of South Africa through the country's two major international airports, but many shipments move overland on public and private transportation to Lesotho, Botswana, and Zimbabwe. Nigerian groups control much of the higher-level distribution of both

Nigerian-made and Chinese-made meth within South Africa, and from South Africa to neighbouring markets. Congolese and other secondary suppliers, as well as the many Cape Flats gangs, are involved further down the domestic supply chain, as they each acquire their supplies from the Nigerians as well as the newly competing Afghan meth importers.⁹³

Some Cape Flats gangs have attempted to manufacture their own meth supply in the past, including the Americans, the Hard Livings and the Terrible Josters.⁹⁴ Yet, none has been able to perfect a recipe that yields meth of the same quality and volume as that provided by existing supply chains. As a result, these gangs tend now to focus their small-scale clandestine efforts on the production of methaqualone, MDMA or methcathinone instead, as domestic supply chain competition for these substances is less predatory.

There are no reliable statistics for the meth consumer population size and frequency of use. In 2011 South Africa's Medical Research Council estimated that Cape Town was home to at least 200 000 meth users, 70 per cent of whom were under the age of 20.⁹⁵ Interviews with local NGO service providers who work with drug-using communities in various South African cities proposed that the meth-using population could be in the many hundreds of thousands today.

The predominant retail form of meth distributed across the country is the crystal variety, colloquially known as 'ice' or 'tik'. Meth is not available in powder form and meth tablets are rare.⁹⁶ Meth continues to be the primary substance of use in the Western Cape and Eastern Cape as it has been for many years.⁹⁷ Its use has slowly increased in neighbouring provinces and it has become the second most commonly used substance after cannabis in the Northern Cape, Free State and North West provinces.⁹⁸ Because of its large population size, Gauteng is home to a significant number of meth users, but meth is only the third most commonly used substance there after cannabis and heroin.⁹⁹

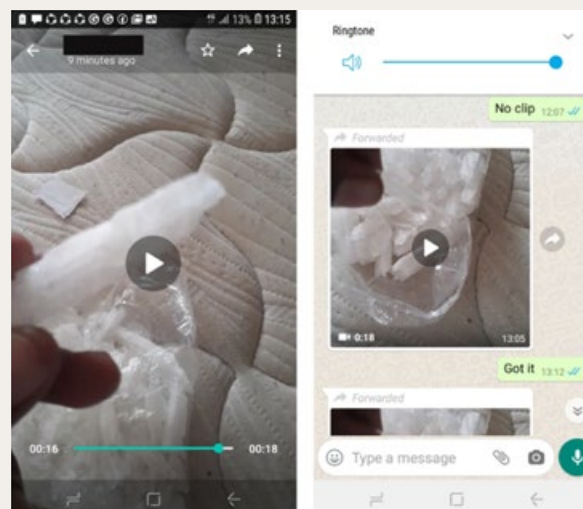
As is the case for heroin, many mid-level meth distributors in urban areas accept and fulfil custom retail orders in terms of volume and packaging. Meth is commonly packaged in small 'baggies', and it is usually distributed in units of R20, R50 or R100 for

street-based retail sale. Clients can purchase meth in baggie amounts of up to R1 000 if a bespoke order is placed. Clients with a higher income tend to order their meth via a social messaging application, like WhatsApp, or by phone.¹⁰⁰ Delivery of these orders entails a R50 charge on top of the cost of the product.

As noted earlier, during the COVID-19 lockdown this delivery charge increased to R300 for those who wanted their meth delivered instead of collecting it in person on the street during the limited daytime vending hours available as a result of mandatory quarantine orders.¹⁰¹



There are a diversity of price points in the South African retail meth market. Consumers can purchase anything from a R30 'straw' of meth – a 2.5 cm piece of plastic burnt closed at each end, containing a small amount of meth – to a R50 'section' of meth, and any bespoke value point a dealer wishes to offer. This photo shows sections of R20 and R50 units being put together before distribution.



Some consumers have the social position and economic privilege to order meth online during periods of crisis, such as that caused by the COVID-19 pandemic and its related periods of quarantine and physical lockdown. These are mobile phone screenshots that show how a dealer in Johannesburg advertises his product by sharing WhatsApp messages and a video to an inquiring regular client. In this particular case, the dealer was advertising an online bulk purchase rate for his crystal meth priced at R120/g for a transaction greater than 100g.

Market

South Africa has a vibrant and expanding meth marketplace. It has evolved from being a significant manufacturing location to a key destination market for meth produced by international syndicates from Nigeria and South Asia. It links transnational organized criminal groups from Mexico, Nigeria, South Africa, China, Mozambique, Pakistan, Tanzania, Afghanistan and beyond. The decades of impunity that meth traffickers have enjoyed since even before the democratic transition in 1994 has fostered the gradual evolution of the synthetic drug trade in the Western Cape from one based on methaqualone to one aligned to meth. This has enabled meth to

infiltrate the drug markets of neighbouring provinces and states, both as a drug of consumption, as well as a currency of exchange.

Law enforcement bodies have been irretrievably compromised in the South African drug trade generally, and the meth trade specifically. Widespread, endemic corruption in the SAPS has constrained efforts to control the country's growing illicit drug markets for decades. As one expert declared in 1995, 'In the RSA, drug dealers have already infiltrated government and police ranks.'¹⁰² He went so far as to add that '... police and customs officers and other law enforcement officials have moved beyond facilitating smuggling to becoming actively involved as couriers.

The corruption of politicians and bureaucrats undermines the legitimacy and credibility of government and subverts the political security of the state'.¹⁰³

It is common knowledge among many PWUD in South Africa that low-level police officers have come to treat street-based meth dealers in many areas as cash cows. Those who do not want to comply are arrested and have their supplies confiscated for evidence, only to find out later that this evidence has allegedly been sold back into the market by the officers who seized it.¹⁰⁴ State corruption infects the entire drug market in the country and it is a structural feature that sustains the trade and contributes to its resilience.

As is the case with its neighbours, border control officers in South Africa are known to accept payments to facilitate the cross-border transit of goods. In fact, it is reasonable to conclude that South Africa has failed to secure its borders against illicit flows of most kinds. The border itself is too vast and the staff assigned to protect it are too few, poorly trained, incorrectly motivated and poorly compensated by the state. Law enforcement personnel, particularly those in specialist drug interdiction units, are also viewed as being enablers of the domestic meth market.

In terms of the characteristics of meth market demand, and according to information derived from national drug treatment programme monitoring data, we are seeing some changes in how it is being used. Most recent data shows that the mean age of PWUD presenting for treatment with meth as their primary drug of use in the Western Cape is 31 years.¹⁰⁵ Comparing this figure with that from 2004, where the mean age was 19, may suggest a reduction in the number of young people using meth today (compared to 2004). After all, the proportion of new (first) admissions today remains fairly stable when compared historically.¹⁰⁶ Unfortunately, however, it is more likely that this age disparity in treatment admission is not an indicator of a reduction in meth use among young people but is more likely evidence that today it is mostly the older meth users that are seeking the assistance of the limited – and largely ineffective – abstinence-based state treatment programming and facilities. Younger users are not, and interviews with PWUD across South Africa appear to corroborate this interpretation.

Still, for people younger than 20, 13 per cent of those who did enter treatment reported that meth was either their primary or secondary substance of use, an increase from previous years.¹⁰⁷ This is an important factor since meth has been the most common primary substance of use for persons younger than 20 since 2004, in the Western Cape in particular.¹⁰⁸ Of meth users admitted for treatment, most reported that they smoked the drug (98 per cent) and only nine percent reported injecting it.¹⁰⁹ Of all meth users surveyed, 53 per cent reported daily use of the drug and a further 35 per cent said they used it slightly less frequently (at rates of use from two to six days a week).¹¹⁰ In the Eastern Cape, the second largest meth market in the country, 35 per cent of users said meth was their primary or secondary drug of choice and, as in the Western Cape, the primary drug of use in the province.¹¹¹ In other words, meth use is pervasive in South Africa, most meth users are not contacting treatment services, and many are hidden from many of the health programmes that target PWUD due to the restricted geography of available support initiatives, limited space and timeframe availability for clients, and limited budgets for programme population coverage.

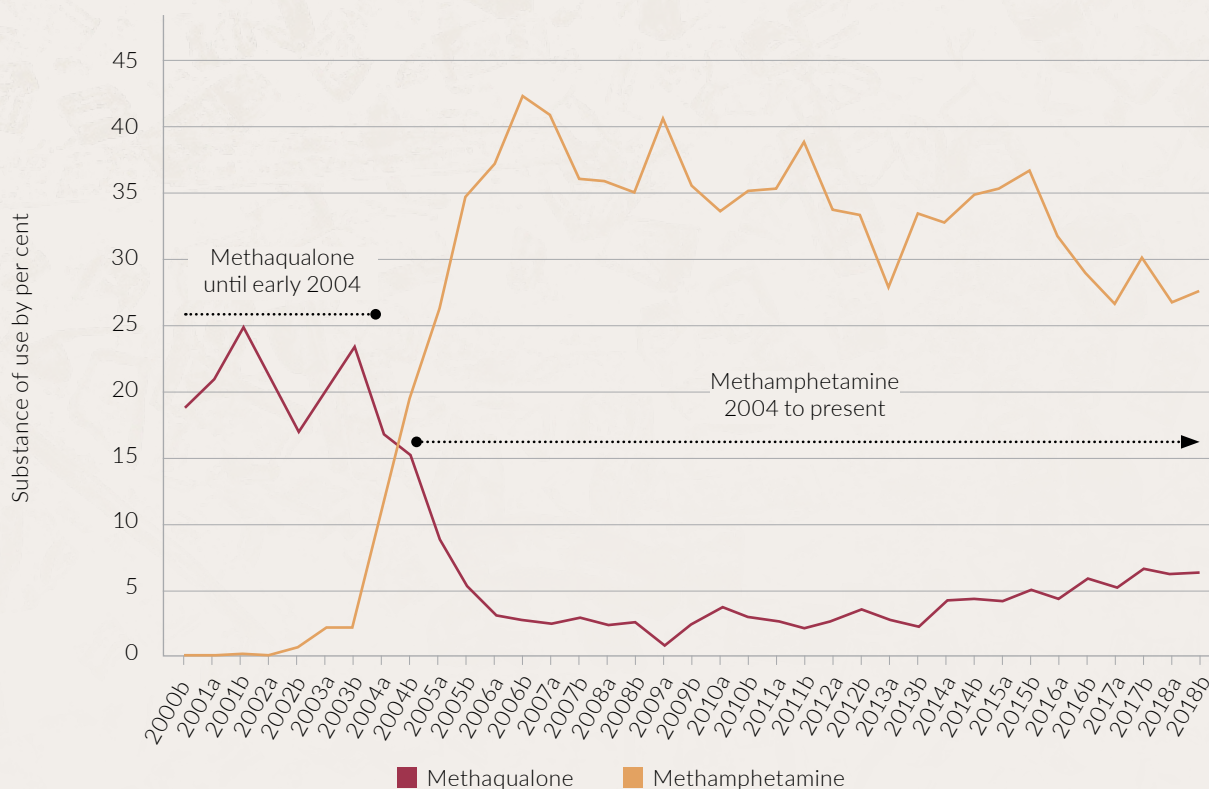


FIGURE 19 Primary substance of use in Western Cape (by per cent) of PWUD and SACENDU reporting periods, 2000–2018.

SOURCE: SACENDU annual reports, 2000–2018

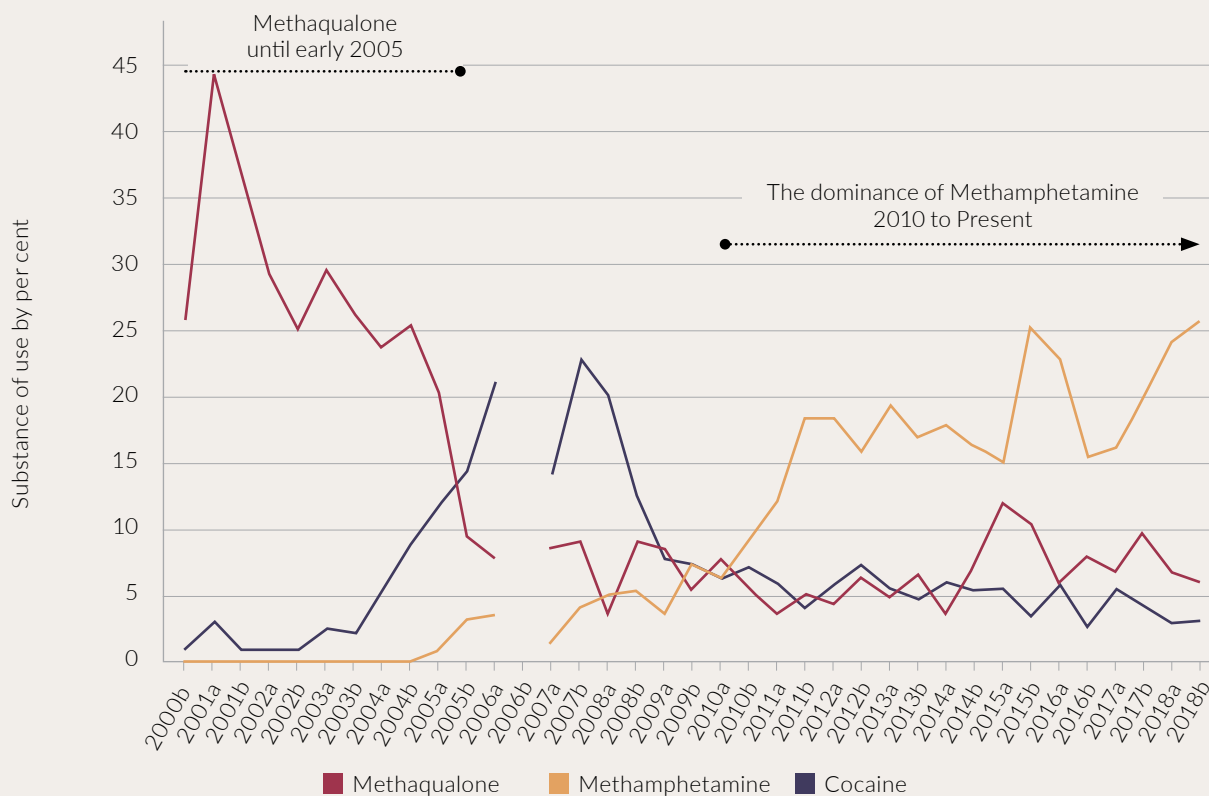


FIGURE 20 Primary substance of use in Eastern Cape (by per cent) of PWUD and SACENDU reporting periods, 2000–2018.

SOURCE: SACENDU annual reports, 2000–2018

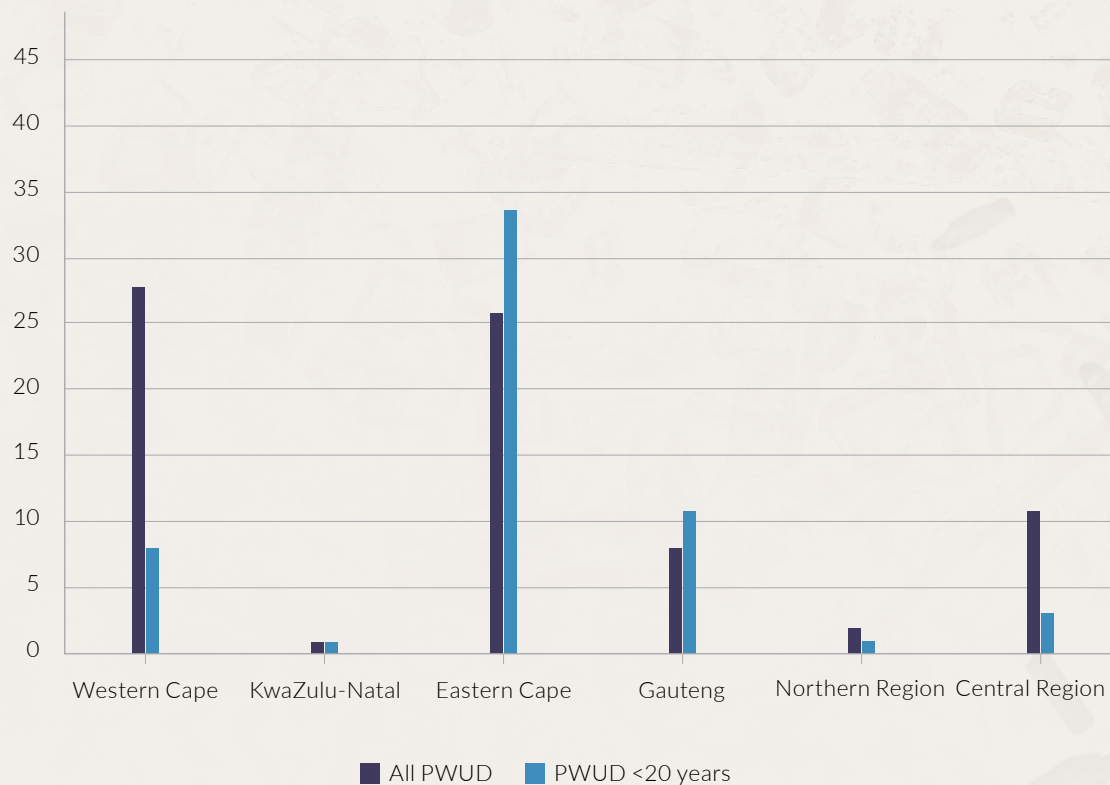


FIGURE 21 Percentage of PWUD by region who cite methamphetamine as their primary drug of use, all PWUD vs. PWUD under the age of 20.

NOTE: Northern region includes Mpumulanga and Limpopo; central region includes Free State, North West and Northern Cape.

SOURCE: SACENDU, July–December 2018

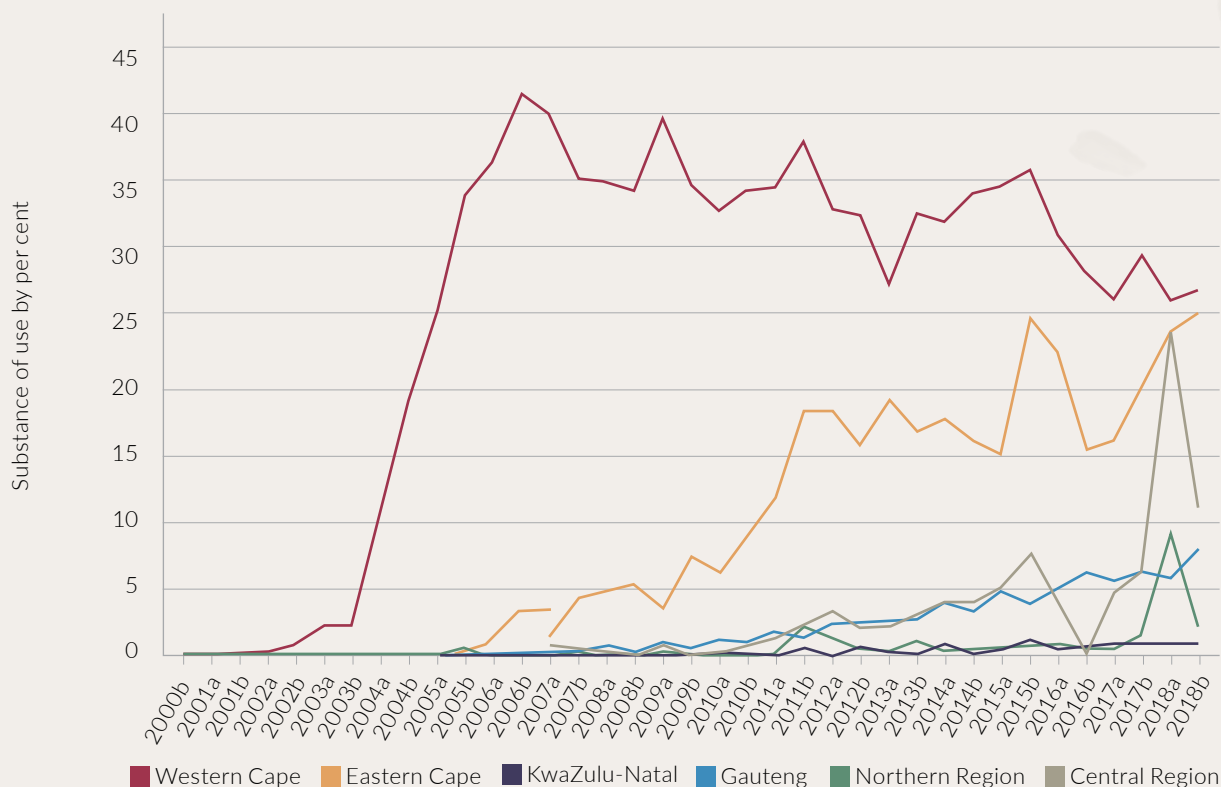


FIGURE 22 Methamphetamine as primary substance of use in SACENDU regions by percentage of PWUD and semi-annual reporting periods, 2000–2018.

SOURCE: SACENDU annual reports, 2000–2018

South Africa has become a key destination market for meth produced by international syndicates in Nigeria and South Asia.

Estimating the consumer market size by proxy

In outlining the consumer-base characteristics of the South African meth market, it is important to consider the motivation for and abstract findings of available datasets that monitor drug treatment and other enforcement-oriented or health programme sets. One might question whether these datasets are sufficiently comprehensive to be relevant proxies for determining basic drug demand and consumption characteristics of a domestic marketplace.¹¹² Alternatives do exist, however.

Wastewater epidemiology is a rapidly developing discipline being used to generate near real-time data on geographical and temporal trends in illicit drug use. It entails the systematic sampling of wastewater, such as sewage influent to a wastewater treatment plant.¹¹³ The purpose of such sampling is to measure the level of an illicit drug and its metabolites excreted in urine. This measurement can be used to estimate the quantity of drug consumption within the geographic area of the influent's origin. Enantiomeric profiling is an analytical chemistry technique used to determine if drugs – in this case, meth – found in wastewater originate from human consumption or have been directly deposited into the wastewater in the form of production waste (e.g. from a clandestine laboratory).¹¹⁴ The relative stability of meth as a compound in wastewater has been shown to be a factor in the return of consistent results in this type of analysis. In other words, meth volume estimates – rather than those for other drugs like cocaine, amphetamine and morphine (heroin) – have been found to be reliable when using this research approach.¹¹⁵

Why is this important? While programme and survey-related data collection instruments are good at describing drug use behaviour and inferring some market demand characteristics, '... discrepancies between the proportion of the population who are users, and the magnitude of drug use can lead to misrepresentation of the overall scale of use' of such data alone.¹¹⁶

Further, wastewater research has become an increasingly common investigative technique in the research into illicit drug markets. Recently the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) completed one of the largest studies of wastewater analysis in the world, analyzing the illicit drug content of wastewater from 70 European cities and towns.¹¹⁷ There are similar examples from Australia,¹¹⁸ China,¹¹⁹ Colombia,¹²⁰ Hong Kong,¹²¹ Malaysia,¹²² South Korea¹²³ and the United States.¹²⁴

More specific to South Africa, available wastewater epidemiological research undertaken recently in an East Rand and Cape Town influent location indicated that meth was the primary illicit drug of use in both areas.¹²⁵ Furthermore, the population-normalised mass load of meth consumption in the East Rand location was calculated to range from 181.9 to 532.5 mg/1 000 inhabitants/day. The Cape Town location was calculated to range from 675.0 to 1184.8 mg/1 000 inhabitants/day.¹²⁶

What does this mean? If we were to put these figures into a retail market context and employ the estimated catchment population of inhabitants thought to be using each of the two influent sites,¹²⁷ we would generate a mean meth consumption rate of 71.5 grams/day for the East Rand location and 437.4 grams/day for the Cape Town location. If we use these means as a rough consumption baseline for each location, using the mean retail price per gram of meth calculated for each location, we would be able to draw up rough data on the financial size of the retail meth market for each of the influent capture areas.

East Rand location

Using a mean daily consumption of 71.5 grams and a mean retail meth price of about ZAR 450 per gram (July 2020), we can generate a rough estimate of the meth market consumption and revenue for this sample location, as outlined below:

	Consumption (kilograms)
Weekly	0.50
Monthly	2.15
Annual	26.10

	Revenue (ZAR)	Revenue (€)
Daily	32 175	1 590
Weekly	225 225	11 130
Monthly	965 250	47 700
Annual	11 743 875	580 350

Cape Town location

Using a mean daily consumption of 437.4 grams and a mean retail meth price of ZAR 300 per gram (July 2020), we can estimate meth market consumption and revenue for this sample location to be:

	Consumption (kilograms)
Weekly	3.06
Monthly	13.12
Annual	159.65

	Revenue (ZAR)	Revenue (€)
Daily	131 200	6 484
Weekly	918 540	45 388
Monthly	3 936 600	194 520
Annual	47 895 300	2 366 660

Although these numbers are speculative projections, they do demonstrate four important features of the meth market in South Africa. First, the volume of consumption measured in these two wastewater samples alone generated projected meth use levels that were far greater than the numbers maintained by health monitoring and drug treatment programme datasets for these areas. Thus, far more meth is being consumed in these communities than is being captured by current estimate methodologies. Further, if we consider that the inflation-adjusted price of a gram of meth in 2020 was 43 per cent cheaper than it was in 2004, we may begin to understand one feature of the

retail market that may be contributing to increasing consumption.¹²⁸ We may consider also that the profit margins for street level retailers in local meth markets are slim, a feature that may incentivize a higher volume-based approach to their retail activities. This tight retail profit margin may have contributed to the limited price volatility in the quarterly mean price for meth throughout 2020.

Secondly, if we compare the mean volume of meth consumption in these two locations with means derived from other global wastewater studies, we find that the consumption levels measured in South Africa are among the highest in the world. In fact, with a mean of 929.9 mg/1 000 inhabitants/day, the Cape Town location showed higher consumption rates than any other recently surveyed location in the world and indicates that there is a strong likelihood that far more meth is being consumed across South African communities than we thought. This alone is a cause for concern.

Thirdly, this simple extrapolation of a population-normalized consumption metric to generate some basic market financial characteristics demonstrates quite clearly that the size of the illicit meth market in South Africa is far greater than government authorities believe. After all, this calculation was based only on end-user consumers of meth. It did not account for the fact that a gram of meth is sold many times over before it makes it into the pipe of the end consumer. Hence, there is a high probability that estimates are well below the real market size.

Finally, it appears that when it comes to the generation of relevant data on illicit drugs and their use, particularly as this relates to geographic or programmatic settings, in most cases national bodies are using the wrong metrics. The limitations of drug treatment (or other social or health) data as a proxy for regional consumption patterns and volume are apparent from these results. In fact, we can say the same for datasets that measure drug-related arrests and seizures. Simply put, many countries are not measuring these market characteristics, and of those that are, some are doing it wrong.

This is not to say that such interview-oriented datasets are not useful. In fact, the utility of such statistics is seen not in their standalone capacities as programme monitoring sequelae but instead in their contribution

Sample location	Mean
East Rand, South Africa	357.2
Cape Town, South Africa	929.9
Oslo, Norway	86.5
Helsinki, Finland	83.4
Espoo, Finland	89.5
Dresden, Germany	136.7
Budweis, Croatia	261.9
Pietsany, Slovakia	310.2
Bratislava, Slovakia	671.8
Hong Kong	190.0
Kuala Lumpur, Malaysia	545.0
Busan, Korea	3.1
Ostrava, Czech Republic	601.2
Vilnius, Lithuania	31.3
Madrid, Spain	6.6
Istanbul, Turkey	16.2
Athens, Greece	11.3
Helsinki, Finland	33.2
Copenhagen, Denmark	23.7
Amsterdam, Netherlands	31.5
Brussels, Belgium	9.8
Zurich, Switzerland	64.5
Barcelona, Spain	106.8
London, United Kingdom	57.6
Prague, Czech Republic	726.9
Reykjavik, Iceland	29.6
Nicosia, Cyprus	16.3

FIGURE 23 Most recent mean methamphetamine consumption estimates by city using wastewater concentration and enantiomeric profiling analysis (mg/day/1 000 population).

to the analysis of the illicit market environment. While enantiomeric profiling and wastewater epidemiology can provide a firm quantifier for geographic consumption, they cannot provide contextual human-based data on the consumers and other market characteristics within that area. Such analytical gaps can be filled by using other datasets such as treatment profiles and interview-response data.

Market supply chains

Meth is a Schedule II internationally controlled substance.¹²⁹ Unlike heroin or cocaine, both of which are natural derivatives from an agricultural crop,¹³⁰ meth is a product of chemical synthesis. Consequently, while the production of heroin and cocaine is bound spatially (to specific cultivation regions) and temporally (to relevant harvest periods), meth can be

produced anywhere and at any time. The only factor limiting its production is the availability of the necessary precursor chemicals.

In general, the synthetic production of meth involves six steps. These are:¹³¹

1. Precursor conversion
2. Synthesis (i.e. the cooking stage)
3. Separation of the meth oil drug base
4. Purification (e.g. through distillation)
5. Crystallization (the oily base is converted into a salt, methamphetamine hydrochloride)
6. Finishing (e.g. filtering, rinsing, drying)

While meth may appear to be a homogeneous commodity, similar in appearance and priced uniformly across an illicit marketplace, and even between markets, there are many differences. In the same

way that a fruit consumer can discriminate between different types of apples available at a store, a meth consumer can distinguish between different types of meth available in the illicit market. The method through which meth is synthesized and the precursors used in this synthesis¹³² are unique characteristics that can influence the purity, colour, taste, texture and smell of the substance when it reaches the retail market.¹³³

While meth can be synthesized using several different cooking methods, most clandestine synthesis uses one of two major precursors: pseudoephedrine/ephedrine (PE) or benzylmethylketone (BMK).¹³⁴

Historically, the conversion of meth using PE has been the most common method. Difficulties in acquiring the quantities of PE necessary for industrial production of the drug has seen a shift in recent years from a PE model of synthesis to one grounded in the manufacture of BMK and the subsequent synthesis of meth.¹³⁵ This is a less expensive process that yields larger amounts of highly pure meth. Today this reductive amination method (and its more recent nitrostyrene variation) using BMK is the approach favoured by Mexican cartels.¹³⁶ The use of PE for the synthesis of meth was once believed to be the most common production method for South East Asian producers, but these syndicates appear to have shifted also to the synthesis of BMK to produce meth.¹³⁷ Importantly, it is not uncommon for meth production to alternate between methods of synthesis depending on wider contextual factors, including law enforcement interdiction or other disruptions (e.g. the closure of borders due to pandemic control measures) that may interrupt the availability and flow of particular precursors.

Currently there are three dominant supply chains that feed the meth market in South Africa. These can be described as a domestic supply chain, a Nigerian supply chain, and an Afghan meth supply chain.

Domestic supply chain

The domestic production of meth is the oldest source of regular supply to the South African market. Shaped by a history of synthetic drug production that was sanctioned by the government during the apartheid years,¹³⁸ the industrial production of the drug grew out of the criminal market chaos that plagued the

democratic transition years of the post-1994 period as South Africa's new government struggled in its pursuit of immediate, equitable development solutions. Grounded in the expanding abalone-for-chemicals trade relationship that was occurring between Cape gangs and Chinese syndicates in the coastal communities of the Western Cape, the mid-1990s was a period of dramatic expansion in the domestic industrial production capacity for methaqualone, then meth. The growth of domestic meth production continued in earnest throughout the early 2000s, only easing off over the past decade (2010 onwards).

Nigerian supply chain

Interviews with local suppliers and PWUD in both the Western Cape and Gauteng indicated that the above-mentioned reduction in domestic meth production in South Africa was due to three factors. Firstly, the acquisition of a sufficient volume of PE became increasingly difficult. This was partly because the traditional supply chain (the abalone connection) that existed through locally based Chinese syndicates has shifted over the past decade to support the domestic production of other substances like methaqualone, methcathinone and MDMA. The production of these other synthetics was driven by the desire of Cape gangs to shorten their own supply chains. Owning and operating the means of production for these substances gave them more power in the local drug market than had the previous arrangement of having to acquire their supply through Nigerian intermediaries who held the retail distribution space that was forged between the local Chinese-supported producers and the gangs.

Secondly, the development in 2016 of industrial-level meth production in Nigeria and neighbouring West African states, alongside Mexican cartel technical and human resource-based assistance, precipitated a rapid shift in the origin and supply chain of regional meth. This was complimented by widely available commercial supply chains of precursor chemicals (both licit and illicit) flowing to and through West Africa from the chemical and pharmaceutical industries of India and China.

This production transformation also aided a shift in the power base of Nigerian syndicates involved



FIGURE 24 Clandestine lab seizures in South Africa, 2019.

SOURCE: SAPS

in meth distribution in the southern African region and elsewhere. Moving from being intermediaries for Chinese syndicate-backed production in South Africa to becoming producers and distributors, thereby controlling their own supply chain, was a significant shift in regional market development. Going forward, Nigerian syndicates were able to shift large quantities of their own Mexican meth from West African sources into the local South African market as well as to markets further afield. This created a strong and competitive supply chain that soon dominated the existing domestic supply chain.

The third factor was quality. The Mexican meth of the Nigerian syndicates appears to have transitioned from a PE-driven synthesis base to a BMK-driven base.¹³⁹ This change appears to have mirrored the BMK transition that occurred within the Mexican cartel meth industry over the same period.¹⁴⁰ If true, this alleged BMK switch would have enabled Nigerian laboratories to increase production volumes and improve the purity of their product. Regardless, high-quality, nearly clear Mexican meth shards soon formed a core part of the regional meth trade alongside the traditional 'crushed ice' version of the product. Highly sought after by meth users for their purity, these large crystal shards became the meth market's standard-bearer across South Africa.

This market transformation, which led to the primacy of Nigerian meth production in Africa, has been flagged by the US as a significant security threat.¹⁴¹ Both EMCDDA and EUROPOL have said that Nigerian drug trafficking organizations are becoming one of the most prolific groups in the global trafficking of meth.¹⁴² The Chief Superintendent of Narcotics for the NDLEA has confirmed that the main markets for crystal methamphetamine produced in Nigeria are East Asia and South Africa.¹⁴³ Interviewees have indicated that the Nigerian-made meth dominates South African meth market supply volumes and retail consumption.

Pakistani supply chain

The identification of a so-called Pakistani meth supply surprised researchers, who were already aware of both the domestic and Nigeria-based supply chains prior to the market research. The identification by distribution informants in the Western Cape of the

Pakistani meth supply that began to appear in the market near the end of 2019 was a new finding. It was unique, both in terms of its emergence as well as its point of origin – Afghanistan.

Famed for its role at the heart of the global heroin trade, the past two years have seen a significant increase in the production of methamphetamine in the south-west border provinces of Afghanistan. In this short period, the production of ephedrine and meth in the remote villages of these provinces has grown to the extent that the country's potential production volumes may well exceed the estimated demand in Afghanistan as well as in neighbouring Iran and Pakistan.¹⁴⁴

Until recently, neighbouring Iran was home to the most mature regional market for the production and consumption of methamphetamine. Use of meth alongside heroin has become increasingly common in Iran over the past decade.¹⁴⁵ As research from David Mansfield and Alex Soderholm of the London School of Economics describes, increased law enforcement pressures and regulation of precursor chemicals in Iran has curtailed large-scale meth production in the country.¹⁴⁶ However, meth producers from Iran appear to have maintained a regional level of production by passing on the skills and knowledge for the manufacture of this meth to counterparts in Afghanistan.¹⁴⁷ From a practical perspective, this was a natural consequence as the necessary precursor chemicals, such as ephedrine, had become more widely available in Afghanistan and more restricted in Iran.

At the same time, the area of Afghanistan under opium poppy cultivation dropped sharply in 2018, and the estimated opium produced fell by 29 per cent over the previous year.¹⁴⁸ These decreases, in particular in the northern and western regions of the country, were attributed mainly to the impact of a severe drought. For opium poppy farmers reliant on the crop for their livelihoods, the potential for methamphetamine production as a lucrative income alternative was attractive. As a result, a plethora of artisanal 'meth labs' quickly emerged in regions previously dominated by opium.

The real breakthrough was the finding that a local shrub – the ephedra plant, known locally as 'oman', which grows abundantly across northern and central

The identification in the Western Cape of 'Pakistani meth', which began to appear in the market in late 2019, was a new finding.

Afghanistan – contained a naturally occurring form of ephedrine, a key precursor chemical required to produce crystal meth.¹⁴⁹ The abundance of ephedra in the country has been a game-changer for Afghan meth production as it has provided a secure domestic supply of the necessary precursor and significantly shortened the production supply chain, thereby substantially lowering overall manufacturing costs.¹⁵⁰ As a result, several of the traditional barriers to entry to the meth production business have been eliminated, and there has been a surge in both ephedrine and meth production and distribution in Afghanistan.¹⁵¹ This has supplanted the dominance of opium in some of these areas which has long been a significant source of livelihood for local farmers.¹⁵² One of the major unanswered questions about this nascent meth production is which markets the output is destined for.¹⁵³

In response to this sudden emergence of widespread meth production in Afghanistan, the United States (under the banner of the International Security Assistance Force, or ISAF) embarked on a bombing campaign in May 2019. The intention was to destroy many of the methamphetamine laboratories that had spread throughout the poppy-growing region of the country and, unlike opium (as an agricultural product), could remain an active, year-round security threat.¹⁵⁴ The campaign was justified on the grounds that it would deny the Taliban a new revenue stream that would be derived from taxing these new drug production facilities and their income flows. However, this drew criticism from observers, not only because the strikes resulted in the deaths of at least 30 civilians and were not lawfully military targets,¹⁵⁵ but also from those who argued that the estimated amount of revenue denied to the Taliban was vastly overstated, and that these unsophisticated laboratories could be reconstructed with relative ease.¹⁵⁶

Though domestic meth use has reportedly risen sharply in Afghanistan, and markets in Iran and Pakistan may absorb some of this new production, it is believed that the volumes being produced in Afghanistan far outstrip the total size of demand both domestically and in these neighbouring states. This suggests it is likely to move to markets further afield.

Initial interview findings from research in South Africa's Western Cape Province provide an answer, given evidence that this meth is reaching markets in southern Africa.

As we know, heroin is produced in bulk from Afghan opium and packaged in Pakistan before being shipped by dhow along the so-called southern route, departing from ports along the Makran coast of Pakistan to African and European markets. Emerging evidence suggests that Afghan meth shipments are being 'piggybacked' with this heroin along the pre-existing Afghan maritime trafficking routes used for the latter's international distribution.

Following initial interviews with local meth distributors that returned three separate allegations supporting the existence of a Pakistan-based meth supply chain, additional follow-up interviews were conducted in an attempt to validate these claims through unrelated sources. Interviews were undertaken in South Africa, Mozambique, Tanzania and Kenya. Eight distributors in the Western Cape area made unsolicited allegations that a new Pakistan-based meth supply chain was feeding the South African market.¹⁵⁷ Further investigation unearthed two particularly interesting points of information. One was that there were two Pakistani meth supply chains into South Africa; and, that the quality of this Pakistani meth, derided by many international observers, was

perceived by most consumers to be competitive with the Mexican meth being supplied from Nigeria.

The two indicated supply routes were:

- By sea (dhow) to Dubai, and by air from Dubai to Cape Town on one of the twice-daily Emirates flights.
- By sea (dhow or container ship) to the Nacala–Pemba coastline area in the north of Mozambique, and overland to Johannesburg and Cape Town in South Africa.

The first routing appears to involve the supply of small amounts at a time (perhaps in the low tens of kilograms), most likely destined for the supply chain of a single local Cape Town syndicate. The second routing, however, appears to see meth supplied in volumes of hundreds of kilograms. The latter appears to be the main route into the region.

Seizures as an example of routing

International naval forces operating as part of the Combined Task Force 150 (CTF150) reported a significant increase in meth seizures in 2019 in their area of operations, which encompasses a wide swathe of the Indian Ocean, the Persian Gulf and the Gulf of Aden.¹⁵⁸ As of late December 2019, the force had seized 257 kilograms of meth - including one seizure from a dhow carrying 94 kilograms of heroin and 76 kilograms of crystal meth - compared to only 9 kilograms of meth seized in 2018.¹⁵⁹ In October 2020 the CTF150 seized 450 kilograms of meth from another dhow heading for the East African coast. This seizure set another record for the amount of meth seized in a single instance, breaking the December 2019 record.¹⁶⁰ In November 2020, the Yemeni Coast Guard, with assistance from Arab

Coalition forces, seized a dhow off the Mahra coast carrying an additional 216 kilograms of meth.¹⁶¹

In December 2019, a Pakistani-crewed dhow was intercepted off the coast of Pemba, Mozambique, carrying a mixed cargo of both heroin and 299 kilograms of methamphetamines.¹⁶² Pemba is known to be a major port of entry on the East African coast for dhows carrying Afghan heroin, predominantly from the coast of Iran and Pakistan, but this seizure of a mixed shipment of heroin and meth was the first of its kind. Several months later, in May 2020, a cargo truck was intercepted by the SAPS as it crossed from Mozambique into South Africa at the Komatipoort border post and was found to be carrying a large shipment of heroin and methamphetamine.¹⁶³ Similarities in these many different seizures appear to suggest an interlinked supply chain and origin point for this meth, which is often accompanied by heroin supplies.

In September 2020, researchers took images of a joint heroin and meth shipment that had arrived in Cape Town, South Africa, via Mozambique and originating from Pakistan. In October, researchers took images of another combined heroin and Pakistani meth shipment that was moving through Durban for overland delivery to wholesale distributors in the Western Cape.

PWUD interviewed in South Africa on this new Pakistani meth supply said they perceived the purity of the drug to be quite high, and 'just as good' as the Nigerian-produced Mexican meth. They said it appeared to be of a higher quality than the locally produced meth that has dominated the market in South Africa since the democratic transition of 1994. This is borne out by the nature of the meth itself in the local marketplace. Where Mexican meth appears to be consistently clean, translucent and pure, reports



Video screenshots of Afghan meth shipments that have arrived in South Africa. A South African-based importer confirmed he placed his Afghan meth orders by phone directly with intermediaries in Pakistan.

from users indicate that there is a strong belief that some of the local meth often is adulterated with some external agent. This finding comes from PWUD who cite its texture, its uneven high, and the misalignment of its crystals when the mixture cools and recrystallizes in a meth pipe (the 'crackback pattern').

The locally produced meth is distinguished by its generally smaller ('crushed ice') crystal size, a cloudy appearance and the absence of large crystalline shards. The Pakistani meth, which is ephedra based, appears in the marketplace in both large crystalline shards as well as in batches of smaller 'crushed ice'

crystals that can be oily and often retain a yellow or brown hue (i.e. unrinsed meth). The quality of this new meth can be variable, according to PWUD, but normally is comparable to the best Mexican meth. One of its more attractive features for PWUD is its PE base. In contrast to the Nigerian and local supplies, which appear largely to be the result of alternations between BMK-based production and PE-production models, the ephedra-based Afghan meth stands out in the marketplace. It is said to give a better 'high' than its competitor products, which has increased demand for it.

The case for an Afghan-based 'Pakistani meth' supply chain

More than a dozen informants, including both intermediate and high-level meth importers, have indicated the existence of a Pakistani-controlled meth flow that began to appear in South Africa's domestic meth markets in late 2019. Dozens of PWUD in South Africa have confirmed that this 'new' meth is clearly different in texture, purity and synthesis base (natural ephedra-based versus PE-based or BMK-based). No other meth supply chain was ever identified in any of the interviews throughout the research period (May to November 2020) other than the three indicated in this report – domestic meth (Chinese-based), Mexican meth (Nigeria-based) and this new Pakistani meth.¹⁶⁴

In 2020, there was an increase in meth seizures in the western Indian Ocean region, including off the coast of eastern and southern Africa and of combined shipments of meth and Afghan heroin. No seizures of similar shipments had been identified prior to late 2019 period, indicating that this may be a recent development.

Apart from Nigeria and some of its West African neighbours, and to a much lesser degree, South Africa, there appears to be no other countries in Africa in which significant meth production is taking place. Production in Iran has declined significantly, a factor that has contributed directly to the increase in ephedrine and meth production in neighbouring Afghanistan.¹⁶⁵ Iranian authorities have noted the massive expansion of meth production in Afghanistan, and the fact that much of it is now crossing their borders.¹⁶⁶

Reports from different parts of the world may reveal where these overflows are going. Sri Lankan, Indonesian and Australian authorities have confirmed seizure of Afghan meth shipments, while reports of meth importation by Pakistani and Iranian crews have been verified in Tanzania and Mozambique too. Meth importers in South Africa – including competitor importers (Nigerians) – have also confirmed this Pakistani meth flow. Finally, a senior law enforcement informant reported that chemical analysis of samples seized from this supply chain as it transited Mozambique have confirmed its Afghan origin.



Tricks of the trade: a 5g bag of 'Mexican meth', which turned out to be only 4.25g when weighed after purchase. Selling underweight quantities is not uncommon, and happens for various reasons. In this case, it was believed by the purchaser that the dealer sold the underweight product at a higher price because of the desirable size of the crystal shards and the high purity expected of the contents.



A sample of meth commonly available in and around Pretoria. Note the much smaller crystals, giving the appearance of crushed ice – hence the origin of the slang term 'ice' that is used commonly in many countries to describe crystal meth.



Cape Town meth retailing at R300/g in March 2020. Although the price of meth increased following the beginning of the COVID-19 lockdown in South Africa, it quickly stabilized to its pre-lockdown price point. To accommodate the pandemic, dealers in Cape Town (and in many other market locations across South Africa) added a R300 delivery charge to the retail purchase price for meth. This price was not charged to those who continued to access dealers in the street; rather, it was a tax charged to those who did not want to risk exposure on the streets and instead requested the drugs be delivered. In Cape Town the R300 charge covered delivery anywhere in the downtown ('city bowl') area and its immediate urban surroundings.



Close-up view of meth shards scattered on a South African 100-rand note; R100 would net a consumer a quarter section – or around 200–250mg – of meth in the Western Cape or Gauteng. While such a measure normally would be expected to be a quarter gram in weight, there are no regulatory bodies to monitor product compliance with respect to illicit market adherence to weights and measures in the same manner in which such oversight would apply to vendors of licit products. In cases where an illicit-drug consumer felt 'cheated' by a dealer, they would have no recourse other than to move to a different dealer for future purchases. The relative standardization of the South African meth market does provide a degree of flexibility for meth consumers to select dealers, particularly as the retail pricing in the domestic marketplace is remarkably consistent across locations, and among dealers within locations. The consistency in supply chain stability also ensures that the risk of a marketplace stockout is very low.



Approximately R700 of meth being prepared for sale in Gugulethu, a township of around 100 000 people near Cape Town International Airport. Note the sugar-like texture and the brownish colour, which is caused by impurities in the product. Often this is the result of an inferior process of production, an insufficient chemical rinse, or a different cook or cooking technique. The origin of this meth is different from that of the 'Mexican' and 'Pakistani' crystal meth shards available in other parts of the Cape. It was believed that this meth originated from a supply manufactured locally.



The South African meth market, particularly in the large urban centres of the Western Cape and Gauteng – is one organized very much around the meeting of consumer needs. In this case, this package of meth represents a single R1 000 order. Of particular note, many dealers sell product that is packaged by price points, and not by weight. This makes the transaction a much more efficient process for both retailer and consumer.



Meth retailing for R300/g outside of Cape Town. Note that these two sachets contain different volumes. It is more common in eastern and southern African drug marketplaces for meth to be retailed by different price points than it is for it to be retailed by different weight



points. While the R300/g standard rate may hold firm, the volume that consumers may purchase will depend more on how much money they have available to spend than on what volume they wish to acquire.



Supplies of, 'Mexican meth' have been available in South Africa for the last three to four years, according to Nigerian distributors interviewed as part of this research. This would place the beginning of this supply chain in the same timeframe as when Nigeria seized its first meth



'superlab' (in 2016). That particular incident involved the arrest of four Mexican nationals allegedly involved in teaching Nigerian-based meth producers how to cook the purer Mexican variety of the substance and how to do it in higher-volume batches.



A duo of R20 and R50 sections of meth.



The size differences between a R20, R50 and R1 000 packet of meth in the Western Cape.



A R50 section of yellow-tinged meth for sale, a common sight in the Western and Eastern Cape. Often, the yellow hue is caused by impurities that have remained from the production process. In most cases, the colour can be removed by washing the meth with acetone. This removes the colour but doesn't alter the meth in the process.



A packet of meth for sale in KwaZulu-Natal. Retailing at a price point equivalent to R400/g, this meth appears to be made up of powdered crystals. It is not as appealing a product as the crystal shards of the Mexican or Afghan varieties available in the Western and Eastern Cape.



High-quality meth in South Africa presents in the same way that it does in crystal meth markets around the world. Generally, it is translucent or white, and consists of



crystals or shards resembling broken glass. Greater clarity and larger crystal pieces are both qualities that attract many South African consumers.



Like that pictured in the above photo, numerous supplier informants in the Western Cape indicated that most of the 'Mexican meth' available in South Africa is manufactured in Nigeria. It retails for R160/g for minimum orders of 10g or more, and can be found in most of the major urban areas.



Meth with a yellow or brown hue is not uncommon in South Africa. Meth that is coloured tends to be that way due to contaminants or residue from the production process. While there does appear to be the perception among South African consumers of a purity difference between yellow meth and white meth, there is insufficient data available to verify whether this is the case chemically.

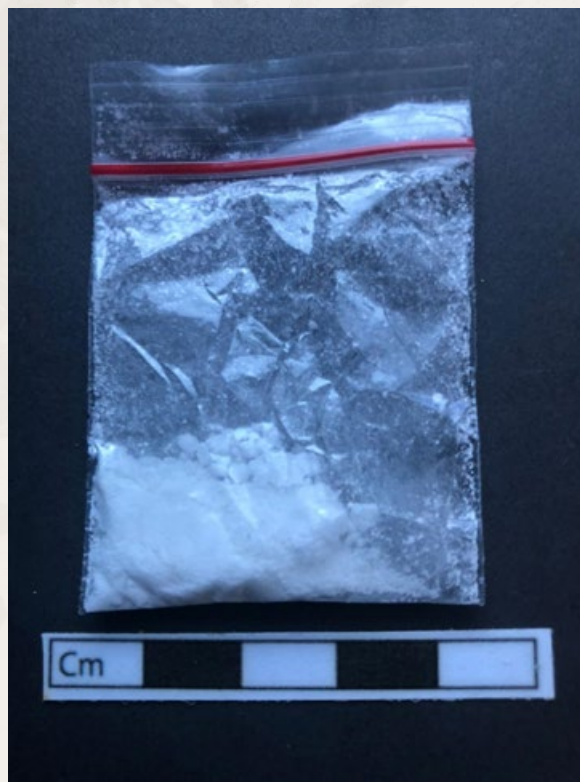


Various batches of Afghan-produced meth being sorted in preparation for wholesale in Cape Town to local distributors. Confirmed by high-level importers based in South Africa who order this meth directly from connections in Pakistan, this supply chain first appeared in South Africa in late 2019. Manufactured in Afghanistan, this meth is wholesaled at the production point for around US\$300/kg. It is trafficked to South Africa in at least two

ways. First, multi-kilo loads move overland via Pakistan and transit the UAE, and are then shipped by air to Cape Town. Alternatively, it is shipped in loads of hundreds of kilos by sea (often accompanying heroin shipments) to be offloaded in Mozambique and then transported overland to South Africa. Upon reaching the Mozambican coast, this meth is wholesaled for around US\$1 000/kg. In Cape Town the wholesale price is approximately US\$13 000/kg.



'Buttons' of methaqualone (or Mandrax) produced and sold domestically, with demand greatest in the Western Cape. These retail for around R50 per tablet. While these 'buttons' are produced locally, there remains greater demand for Mandrax produced in India and imported to South Africa. This is because there is a perception among users that the Indian variety is of higher quality. Despite this apparent distinction in perceived quality, there is an insignificant price difference between domestic and Indian Mandrax.



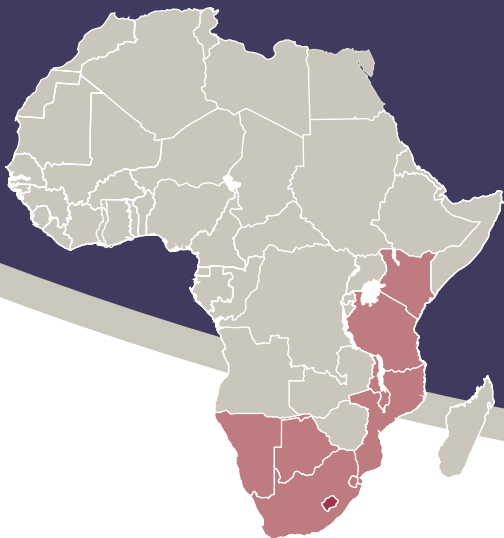
Methcathinone for sale in Pretoria. Closely related to meth and normally snorted or smoked, this is a R100 packet with a weight of 500mg.



Methcathinone ('cat') powder. There are assertions by local dealers that the production of methcathinone powder is increasing in South Africa. It is easier to produce than meth, and there are no foreign supply chains against which a domestic producer would have to compete. 'Cat' is a stimulant that retails for between R200 and R300 per



gram, depending on where in the country it is purchased. Reports have indicated that some entrepreneurial Cape gangs have invested in the direct production of methcathinone – as well as MDMA – in small batch quantities to supply their own distribution channels.



CHARACTERISTICS OF THE METH MARKET IN **LESOTHO**

Price

Meth in Lesotho comes from South Africa and costs about R450/g. Retail sales are organized in the same manner as they are in South Africa, with most of the product being retailed by price point rather than by weight. There are fewer price points available in Lesotho due in part to the smaller consumer market compared to South Africa. Crystal meth is universally available. No instances of tablet meth were identified by researchers.

Distribution

The distribution of meth in Lesotho is controlled by a small number of high-level importers. As might be expected, they operate out of the capital, Maseru. Maseru and Manzini are distribution hubs for the country, with the meth supply originating from businesses affiliated to the importers, including guest houses, night clubs and hotels. Upon arrival in the capital, the South African meth often is repackaged for secondary distribution. Domestic distribution beyond Maseru is done overland by hand-to-hand connections until it reaches the domestic market's few dozen dealers. High-level distributors import their meth supply directly from Bloemfontein or Cape Town in South Africa. The local storage of large quantities of meth supply appears to be rare in Lesotho. Instead, importers indicate that they receive regular deliveries from their external supply network or bring in their meth stock themselves two or three times a month.

Both Chinese and Nigerian networks have been mentioned as South African-based suppliers of Lesotho meth, though it is believed that the latter is more likely. Nigerian syndicates control the heroin trade into Lesotho from nearby Bloemfontein in South Africa, and it would not be unusual for them to retain some control over the internal distribution of meth for the same purpose. While Chinese and Nigerian syndicates were identified as key figures in meth distribution in Lesotho, it is more likely that the belief that Chinese syndicates are involved in the trade reflects local perceptions about the popularity of meth among the growing community of Chinese-origin workers participating in the country's extractive and construction projects.

Market

Although meth is present in the country, its regular street-based retail availability is limited to the urban areas of Maseru and Manzini. Small amounts are used in other parts of the country, and distribution in these areas often is organized through night clubs (where available), guest houses and small hotels. There is no local production of meth. While ephedrine powder has been seized by authorities in the past, it is more likely these few seizures were related to licitly produced ephedrine that was being diverted into South Africa's illicit market from one of the seven pharmaceutical suppliers resident in Lesotho.

Meth enters Lesotho almost exclusively by road from South Africa. There was no mention in interviews of the product arriving by air. One primary port of entry is the Peka Bridge border post across the Mohokare River. A small border post that operates on reduced hours, it closes daily at 16h30. As a result, it is a quiet location with little traffic and a cadre of guards that can take advantage of the few regular business opportunities that arise at the crossing. A mid-level supplier of meth to the Lesotho market, Andre (not his real name) outlined how meth is usually smuggled into the country, using himself as an example.

First, an order for four to five kilograms is placed with known suppliers in Cape Town. This is enough stock to supply his distribution network in the major retail markets of the country for about 10 days. Once the order has been placed, he flies to Cape Town to collect and pay for it. His meth order is pre-packaged in

sections and ready for retail distribution. He travels with the meth by passenger bus from Cape Town to Ladybrand where he meets up with friends or other colleagues, who cross the border by car at Peka Bridge as a group. Andre has a contact on the payroll of the border guard service and his crossings are made only during the time that this contact is working. The cost to Andre (and to any other smuggler) for each crossing is R1 000 – payable to the border guard in question.¹⁶⁷ There are several others like Andre supplying the market in Lesotho, and the operation of their individual supply chains would not be that different from his.

While there are no valid population estimates available in Lesotho that provide an indication of the size of the PWUD community, some NGOs have tried to extrapolate estimates based on the gathering of low-level treatment and HIV service usage data normally reserved for programme monitoring purposes. Despite these efforts, it is not possible at this time to provide a reliable figure or range to estimate the size of the country's PWUD community. Thus by extension it is neither possible to know the number of potential consumers of meth in the marketplace nor to know, beyond anecdotal accounts, how this commodity is generally consumed and in what volumes and frequency it is consumed by individual users. This information is important to understand how the market is structured, enabled and perpetuated, and it is also important for those whose aim is to effectively disrupt this market.

Unfortunately, this dearth of official (or otherwise) data on the population and contexts of PWUD in Lesotho affects not only our understanding of the specific market characteristics and dynamics of the market, but also how these might have an impact on national policy and programming as it relates to the country's illicit meth (and wider drugs) industry. On a more general level, the absence of a reliable denominator for PWUD population size means it is not possible – beyond anecdotal extrapolations – to measure with any reliable and scientifically-grounded approach the impact of health or law enforcement interventions on Lesotho's illicit drug markets, including that for meth.

Meth supply: the financial motive

How much money might someone like Andre be making from his meth business? He's not saying, but a look at the figures shows it is most likely a lucrative business.

If Andre can purchase the meth at a wholesale price that is twice that which we know was quoted for wholesale bulk purchase in Mozambique (about R20/g) he would pay R100 000 (around €5 000) for five kilograms of meth. Upon his return to Lesotho he would retail this for an average price of R450/g. Before expenses, this would net him R2.25 million. Deducting the R100 000 for the wholesale purchase, the R1 000 bribe for the border guard, and another R10 000 for travel and other expenses, the net return on investment would be about R2.15 million (€107 000) every 10 days. All other things being equal, if Andre maintained a thrice monthly supply and distribution regimen, then this would equate to a rough net return of about €321 000 per month, or €3.8 million per year.

In another scenario, Andre may pay the standard price for meth orders of 10 grams or more, which is R160/g. This is unlikely for someone who is a regular high-value client but for the sake of illustration, if this was the case, his financials would work out this way:

Cost to purchase five kilograms of meth every 10 days:

$5\text{kg} \times \text{ZAR } 160/\text{g} = \text{R}800\,000$

Revenue from sale of five kilograms of meth in Lesotho (10 days' supply):

$5\text{kg} \times \text{ZAR } 450/\text{g} = \text{ZAR } 2.25 \text{ million}$ (minus estimated operational costs of ZAR 811 000)
= ZAR 1.44 million

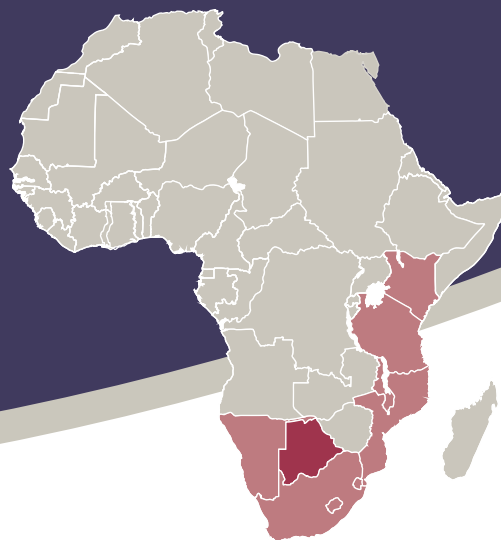
Andre's possible return on investment in this scenario might be ZAR 4.32 million (or €217 000) every month or ZAR 51.8 million (or €2.6 million) per year. This shows that the meth business in Lesotho might be a profitable one, despite the small market.



In Maseru, good-quality crystal meth is available for R450/g. It is sourced, like the heroin supply for the country, from Nigerian networks in Bloemfontein and Cape Town.



Another R450 packet of meth. This one has been opened to display the crystalline structure and translucent colouring of the product. Note the rock salt appearance of this meth sample.



CHARACTERISTICS OF THE METH MARKET IN **BOTSWANA**

Price

Botswana is home to a small but growing meth-using population. As is the case in other countries, authorities point to 'foreigners' as being the primary culprit when it comes to identifying consumers of meth (or any other 'foreign' drug).¹⁶⁸ In Botswana, the authorities point to Chinese workers and others working in the domestic diamond mining and construction industries. As a recipient of Chinese foreign direct investment, it is inevitable that Chinese residents are flagged as being a primary driver of domestic meth demand. There is no evidence to date that sufficiently quantifies the consumer demand for illicit drugs in Botswana, including meth. Such allegations about use therefore are unfounded and anecdotal at best.

Botswana meth comes from Johannesburg supply points, and costs between P450 and P500/g (or R600–700). This price range is about twice the price per gram for meth in neighbouring South Africa. There are no wholesale market points in the country, nor any significant domestic production facilities. Retail sales are organized in the same way as they are in South Africa, with most of the available meth being retailed by price rather than weight. Crystal meth is the preferred product when available in the market. No instances of tablet meth were identified by researchers, and no instances were uncovered of meth being injected in place of smoking it.

Distribution

Understandably, Gaborone is the central distribution hub for meth in Botswana. Situated close to two international overland border gates with South Africa, supplies are imported almost exclusively overland from production and storage caches operated by Nigerian syndicates based in Johannesburg. Major distributors in Botswana are alleged to be mostly of Nigerian and Chinese origin, but include other nationalities (e.g. Congolese). Botswana meth distributors tend to be fewer in number and have less market influence, often contacting Chinese suppliers for information when queried about import or distribution characteristics. Given the volume of Chinese investment and involvement in development projects in the country, it is not surprising that Chinese syndicates have tended to usurp Nigerian interests in the distribution of meth and other illicit commodities in Botswana. They can leverage the existing Chinese corporate supply chains that link Gaborone with the Chinese mainland through myriad international networks. Although landlocked, these organizational entities have the benefit of being on the pathway of a large volume of Chinese-originated cargo trade that transits through Walvis Bay port on the west coast end of the Trans-Kalahari Corridor, a trafficking corridor that passes through Gaborone on its way to a primary terminus in Johannesburg, South Africa.

Market

While meth is not manufactured in volume in Botswana, it is possible that small-batch 'kitchen lab'-type operations emerge from time-to-time with precursor supplies from China-based chemical manufacturers coming from the container-based shipping hub of Walvis Bay in neighbouring Namibia. Meth is reasonably accessible in the country, particularly in and around Gaborone.



As in South Africa, yellow meth is also found in Botswana. This is mainly because the meth market in Botswana is dependent on supply from South Africa. Botswana's small but growing domestic meth consumer market is supplied largely with meth that appears to be produced in South Africa and is of average to good quality. The average retail price was P500/g, equivalent to around R700 (or €37). Neither 'Mexican meth' nor 'Pakistani meth' were found in the Botswana market.



CHARACTERISTICS OF THE METH MARKET IN **eSWATINI**

Price

The Kingdom of eSwatini is home to a small meth-using population. As with many of its neighbours, officials indicate that many of its PWUD are alleged to be 'foreigners' – in this case, Chinese workers. In defense of this characterization one informant indicated that the fact that meth use is viewed by the authorities (or any other informants) as being 'foreign' suggests perhaps that the substance is unattractive to domestic users. eSwatini meth arrives via Mozambique and Cape Town, and costs about R300/g. There are no wholesale market points in the country, nor any significant domestic production facilities. Retail sales are organized in the same manner as in South Africa, with most meth being retailed by price point instead of weight point. There are fewer price points available in eSwatini due in part to the tiny consumer market compared to that of neighbouring South Africa, or even Lesotho. Crystal meth is the preferred product, particularly that which is alleged to come from South Africa. No instances of tablet meth were identified by researchers.

Distribution

The distribution of meth in eSwatini is controlled by a small number of high-level importers, most of whom deal in the importation and distribution of a multitude of other illicit commodities. As might be expected, domestic importers and distributors tend to operate out of Mbabane, but local night clubs, bars and accommodation facilities on the border also operate as distribution locations. Unlike heroin, open street sales of meth are uncommon due to the small size of the meth using population and the limited urban geography for small street distributors to operate safely.

The meth is imported overland through border crossings with South Africa and Mozambique. The few higher-level distributors in eSwatini who could be identified said they import their supply through external connections. Storage of meth appears to be rare in eSwatini, and there was no mention in interviews of meth arriving via the international airport. As in Lesotho and Botswana, Chinese and Nigerian networks were mentioned in interviews as the primary South African-based suppliers of eSwatini meth. In this case, limited evidence does suggest that informal Chinese suppliers and formal Nigerian syndicates together may be principal figures in the limited distribution of meth inside eSwatini.

Market

Although meth is present in the country, its market availability is limited and, for reasons yet to be identified, its supplies are ephemeral. There is no local production. While meth chemical precursors such as ephedrine powder have sometimes been seized by authorities in the past, it is more likely these instances are related to ephedrine diverted from South Africa and bound for small-batch production of meth or amphetamines in clandestine lab facilities located in Mozambique or elsewhere.

As in Lesotho, there are no valid PWUD population size estimates available in eSwatini. While some low-level treatment and HIV service usage data has been attempted by NGOs for programme monitoring

purposes, it is not possible at this time to provide a reliable figure or range to estimate the size of this community. Thus, by extension, and as in Lesotho, it is impossible to know the number of potential consumers of meth in the marketplace, nor is it possible to know beyond anecdotal accounts how this commodity is generally consumed, in what volumes, or how frequently it is consumed by individual users. This information is important as it provides an understanding of how the market is structured, enabled and perpetuated and it is also important for those who aim to effectively disrupt this market.

Unfortunately, the dearth of official (or otherwise) data on the population and contexts of PWUD in eSwatini affects not only our understanding of the specific market characteristics and dynamics, but also how these might have an impact on national policy and programming as it relates to the illicit meth (and wider drugs) industry in the country. On a more general level, the absence of a reliable denominator for PWUD population size means it is not possible to measure reliably and with a scientifically grounded approach the impact of any health or law enforcement interventions with regard to the country's illicit drug market, including that for meth.



There is a small but growing meth market in eSwatini. Meth retails for R300/g and is imported mostly from Cape Town. There is little variation in meth price points in eSwatini. This is due in large part to the small size of the consumer base. Chinese and Nigerian networks are alleged to be involved in the importing and distribution of meth in the country. It appears that the Chinese focus is on the growing community of foreign workers in eSwatini, whereas the Nigerian focus is on supplying the small number of low-level dealers who distribute to locals.



CHARACTERISTICS OF THE METH MARKET IN **MALAWI**

Traditionally, Malawi has been considered largely to be a transit country for illicit drugs, with limited domestic consumer-based illicit drug markets. However, a recent GI-TOC research initiative found that the country is a significant trans-shipment location for heroin and cocaine bound for European markets, and it also has a vibrant, growing domestic drug market featuring these two drugs.¹⁶⁹ Yet, with the exception of GI-TOC research and a limited collection of dated anecdotal review documents, the current status of Malawian drug markets and the possibility of their continued expansion toward an inevitable embrace of synthetic drugs, such as meth, remains vastly under-examined. While Malawian drug use patterns tend to favour cannabis and crack cocaine, there are many questions about the existence and role of meth in the national illicit drug market that need to be addressed.

Attempts have been made in the past to examine Malawi's drug use environment, although many of these were limited in scope and orientation and most were implemented within the political, financial and thematic context of HIV prevention.¹⁷⁰ Alternatively, seizure statistics reported by the Malawi Police Service (MPS) do provide some initial contextual information on the domestic drug environment. For example, over the three-year reporting period from 2017 to 2019 the MPS had seized a combined total of 361 tonnes of cannabis, 35 kilograms of cocaine, 59 kilograms of ephedrine and an insignificant quantity of other substances.¹⁷¹ The volume of cannabis seizures is to be expected in a country where, as with much of the continent, the drug is the one most commonly used. It is interesting, however, that out of the reported total of 2 946 drug cases opened during this period, which included 3 343 arrests (of which 2 320 of those held were convicted), not one of these cases, arrests or convictions was related directly to meth.¹⁷²

The MPS maintains that meth is not present in the country at this time.¹⁷³ It is possible that this position is grounded in technical ignorance rather than in either deception or denial. When it comes to seizures and the identification of drugs, particularly in field settings, the process is complicated and fraught with potential for substance identification and classification error. Like many other police services on the continent, the officers of the MPS lack the forensic capacity to identify and confirm samples of drugs seized. As a result, often they rely on the 'eye test', among other low technical threshold techniques.¹⁷⁴ While some basic chemical analysis tools do exist for this task, their application is hampered by financial, human resource and technical constraints that seem to hamper the effectiveness of the MPS in the execution of this task. There is a strong possibility that meth seizures have been occurring in the country but that they have not been classified as such because of these challenges. In fact, initial research findings confirm that meth consumption is occurring in Malawi. Crystal meth does appear to be available at infrequent intervals in the drug markets of Lilongwe and Blantyre, but less so among neighbouring communities in the southern region.¹⁷⁵

The penetration of meth into Malawi's illicit commodity chain and local distribution networks appears to be recent and limited so far to small PWUD communities of early adopters. There is, for example, recorded use of the drug as a stimulant within the club drug scene, among sex worker populations, and within the small network of 'chemsex' communities.¹⁷⁶ The current meth supply appears to be limited geographically in its distribution and difficult to acquire regularly. It is alleged to originate from production points in Mozambique, although no corroborating evidence of this origin and flow could be found in follow-up interviews with informants in northern Mozambique, or in Blantyre and other market locations in southern Malawi.

From the growing frequency of Malawian citizens being arrested abroad for smuggling meth in their luggage and through the use of 'body packing' techniques,¹⁷⁷ we must deduce that some unknown quantity of meth transits through Malawi regularly

as it makes its way out of the country's two international airports in Lilongwe and Blantyre to markets abroad.¹⁷⁸ As was the case with the growth of the Malawian domestic cocaine market and its emergent heroin market, the likely evolution of a broader domestic meth market is somewhat inevitable.

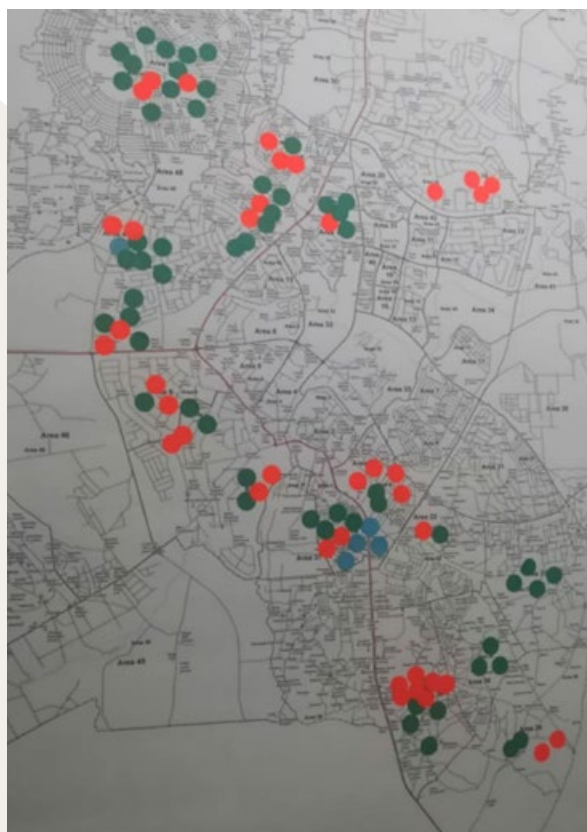
Its genesis is the current niche group of early adopters with expansion likely to come from the meth supplies hived off from transit shipments with a view to being used as currency for the in-kind payment of transport, storage and other supply- and distribution-related services.¹⁷⁹ After all, the bartering of drugs has been a significant historical construct in the evolution and expansion of illicit drug markets, a 'macro-factor accounting for [their] spread' across the geographies of southern Africa.¹⁸⁰

Malawi has a large and growing demand base of stimulant users, most of whom consume crack cocaine. Meth has penetrated drug markets in neighbouring states as a substitute stimulant, and one that delivers a more intense high of longer duration. In general, domestic meth pricing is reasonably competitive with that of local crack cocaine, with some users seeing it as being a more attractive option to buy and use. As the South African experience demonstrates, a diverse offering of price point structures, a reliable supply chain and consistent product quality all contribute to the emergence and expansion of local meth markets.

For the moment, it appears that there is no domestic meth production in Malawi. While the MPS has reported the seizure of ephedrine in the past,¹⁸¹ it is more likely that these have been consignments of licit ephedrine that has been diverted for illicit use outside of Malawi seized while in transit.¹⁸² Locally available meth is found in both crystal and (allegedly) powder form. It is reported to be smoked and injected, the latter because it is perceived by PWUD to be of a low grade. Reportedly synthesized in Mozambique, it is trafficked overland through Malawi's porous southern land border, crossing near the city of Blantyre, which acts as a domestic and regional drug distribution hub.¹⁸³ It is packaged locally and sells for between Malawi Kwacha (MWK) 20 000 to MWK 22 500, or about €24 per gram.

Rarely used or known elsewhere in this transit country, the recent emergence in the domestic market of the powdered drug may indicate that alternatives to the more popular stimulant of crack cocaine are becoming more common. Doubts remain, however, whether this powdered 'meth' is in fact a variety of locally manufactured meth, as indicated by several local dealers, or if it was something else altogether. In the absence of field test verification, our researchers believed it more plausible that the majority of powder 'meth' samples provided to-date by informants in Malawi were instead a related, adulterated stimulant that was being sold as 'meth' – for example, methcathinone ('cat') or some adulterated precursor substance, such as caffeine or ephedrine powder.

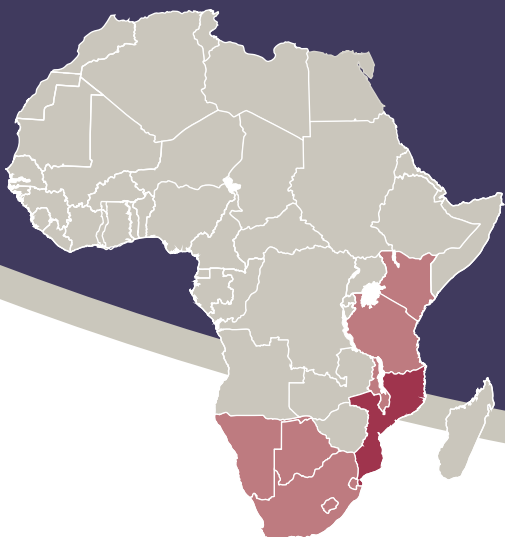
It appears inevitable that higher-quality crystal meth will soon infiltrate other countries in the region, including Malawi, as the large meth market continues to expand in South Africa, Mexican-influenced production continues in Nigeria (and most likely in nearby West African locations), and Afghan meth transits through Mozambique destined – for now – for the South African consumer market.



In a focus group discussion in Malawi that included a mapping exercise with male and female sex workers, PWUD and men who have sex with men, researchers asked participants to place on a city map coloured dots where illicit drugs could be found for purchase. Colours were used to indicate different illicit drugs. The result denotes a vibrant retail drug market environment.



Unlike that found in other research countries, which was universally crystalline in nature, some of the alleged meth being sold in Malawi was available only in powder form. Largely restricted to the Blantyre area, this reportedly Mozambican import commodity retailed for between K20 000 and K22 500 a gram, or around €24/g. Its physical appearance, however, is dissimilar to what would be expected for a powdered version of meth. Instead it is far more likely that this 'meth' sample is another substance, such as methcathinone or adulterated ephedrine, masquerading as a 'meth powder' on the local market.



CHARACTERISTICS OF THE METH MARKET IN **MOZAMBIQUE**

The role of Mozambique as a significant entry point for the landing and onward distribution of heroin from South Asia to domestic African and European marketplaces is well established.¹⁸⁴ In terms of synthetic drugs, it has a long history of being a transit point for methaqualone and meth chemical precursors originating from Indian and Chinese factories and destined for clandestine South African laboratories.¹⁸⁵ It has been alleged also that Mozambique was – and continues to be – a dedicated methaqualone manufacturing site for the South African market,¹⁸⁶ and has been indicated as a current meth production location.¹⁸⁷

Allegations of current domestic meth production in the country arose from research interviews with low-level distributors in Malawi who cited Mozambique as the production source for the meth powder they were selling.¹⁸⁸ Similar allegations arose also from an interview with a senior South African law enforcement official who had working knowledge of drug-related issues in the country and said Mozambique was among a small number of source countries of concern.¹⁸⁹ Further, the US Department of Justice alleged in an indictment issued against the Kenyan-based Akasha Organization that the members had attempted to establish a large-scale meth production facility in Mozambique, but had abandoned the plan after law enforcement agents had seized 18 tonnes of ephedrine intended to support this production.¹⁹⁰ The recent seizure by Mozambican authorities of a working drug lab in Namaacha district, bordering eSwatini, that involved also the arrest of five Mexican nationals, and of precursors common in the synthesis of meth is another significant piece of intelligence on the matter.¹⁹¹ The current research has not yet substantiated whether meth production is occurring in Mozambique at this moment, or if this alleged low quality 'Mozambican meth' found in Malawi is instead a related synthetic (such as methcathinone or ephedrine) only masquerading as meth.¹⁹²

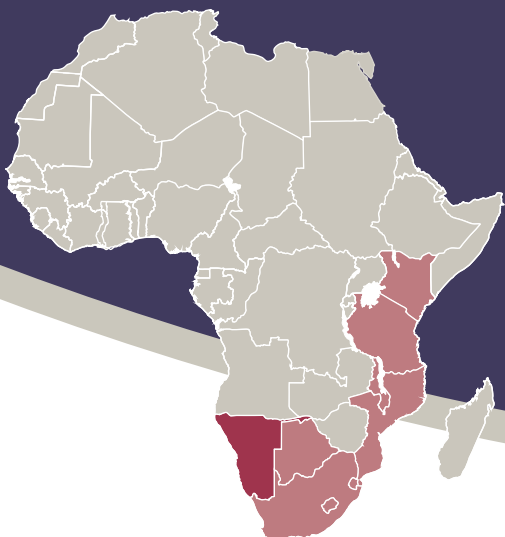
Previous research has identified Mozambique as a key coastal link in the networked distribution of heroin across eastern and southern Africa.¹⁹³ Current research findings suggest that recent changes in the global meth supply chain have seen Mozambique become a key African transit point for the distribution of South Asian (Afghan, via Pakistan) meth to the southern African market since the middle of 2019. Initial interviews suggest that key figures in the South Asian community around Pemba, the capital of Cabo Delgado province in northern Mozambique, are alleged to be responsible for coordinating the importation, storage and onward distribution of this new flow of meth.

It appears likely that since mid-2019 the regular shipments of heroin transported to eastern Africa in dhows originating from Pakistan's Makran coastal region have been accompanied also by large volumes of Afghan-produced meth. These comingled shipments of heroin and meth appear to be distributed along the same traditional heroin trafficking routes that supply the drug marketplaces of the continental interior. Mozambique has been cited as a source country for crystal meth found in eSwatini, a country that has long served as a crossing point into South Africa for Mozambican and Tanzanian coastal heroin shipments. Local eSwatini distributors believe this meth has the same appearance and quality as that found in the Western Cape, and it bears no resemblance to the Malawian 'powder meth' that is alleged also to be of Mozambican origin. Chemical confirmation of this meth's Afghan origin only adds further support to the networked flow assertion.

The Beira Corridor, linking the Mozambican port of Beira with Zimbabwe. Mozambique has been a key transit point for the distribution of South Asian-sourced meth to the region since 2019. © Gideon

▼ Mendel/Corbis via Getty Images





CHARACTERISTICS OF THE METH MARKET IN **NAMIBIA**

Following independence in 1990, Namibia became a new route for the regional movement of illicit drugs from landing points in eastern and western Africa and through southern and western Zambian overland border crossings into Namibia.¹⁹⁴ Once in the country, these illicit commodities joined the overland cargo trade flow along the Trans-Kalahari corridor that connects Namibia's Atlantic coast port of Walvis Bay to the Johannesburg metropolitan region (and its dry port of City Deep) in South Africa. Together with the port of Cape Town, these three transport nodes make up a trafficking triangle that links domestic, regional and global illicit commodity flows.

Long known for its connection with the illegal trade in diamonds,¹⁹⁵ in more recent years this triangle has become a core transport corridor for the movement of illicit drugs and, particularly, precursor chemicals sourced from Indian and Chinese chemical factories for the production in South Africa of synthetic substances including methaqualone, meth and MDMA. These precursors often are diverted from licit regional flows and many of them allegedly enter the region through the port of Walvis Bay.¹⁹⁶

A key commercial transport hub for Namibia and several of its landlocked neighbours, the Walvis Bay port also links these nations to markets in the Americas, Europe and Asia. In 2019, the port facilities were upgraded by the China Harbour Engineering Company with funding from the African Development Bank. This upgrade more than doubled the port capacity from its original 350 000 containers a year to 750 000¹⁹⁷ and, by extension, increased its mean daily operating capacity from 959 containers per day to 2 055. This is significant.

While this expansion of daily container handling capacity has the potential to change the operating environment of the facility, it is expected that little will change in terms of operational monitoring of container traffic for potential illicit goods. The port is potentially a corrupted and compromised facility.



FIGURE 25 Trans-Kalahari transit of synthetic drugs and their precursors from Walvis Bay, Namibia, to Gauteng, South Africa.

Port officials and compliance enforcement officers are poorly paid, making them susceptible to bribery and other corrupt practices. It also appears that organized criminal syndicates have infiltrated the many port-based facilities as legitimate employees and allegedly support the import and export of illicit goods from within the structural framework of the port itself.¹⁹⁸

This reality of a corrupt and compromised port is not uncommon. Most intermodal port facilities – including maritime and air-based services – have been corrupted and compromised in a similar fashion across the eastern and southern African region. The high volume and diversity of staff necessary to operate an active facility such as a large commercial shipping port means any complicated recruitment filters would only inhibit the human resource functioning of the organization and thus impede the ability of the facility to operate optimally.

The Walvis Bay port facilities have at least one operating container scanning machine, and with development assistance provided by an international NGO and the United Nations, a few dozen port staff have been trained to operate this device. However, it is unlikely that its presence has had any impact on the smuggling of goods through the facility.¹⁹⁹ While some advanced dual view drive scan systems are available

that can image up to 150 containers per hour, more traditional container scanners operate at a rate of about 15 containers per hour.²⁰⁰ Further consideration must be given also to the fact that drug concealments in shipping containers generally are small in comparison to the volume of covering cargo, and often they are deeply hidden as well. In this regard, only the presence of a high-powered scanning system could deliver the required penetration and resolution necessary to show any evidence of illicit cargo.²⁰¹

Lacking the technical means to examine the expanding intermodal cargo flow limits the ability of port-based customs officials to detect and disrupt illicit trade through the port facilities. Even if modest interdiction successes are achieved, the inability to identify suspect substances hidden in seized container assets is another, more damaging, surveillance limitation.

Namibia is neither a synthetic drug production point nor a significant consumer market for these substances at this time. Yet, its large port facilities and related intermodal linkages both to overseas ports and the expanding drug markets of the continental interior greatly increase the risk that this infrastructural node is enabling unfettered regional illicit trade in synthetic drugs and their precursors.

Seizing the unknown

In late 2019, while they were pre-clearing cargo through a review of incoming cargo manifests, Namibian Customs and Excise officials at Walvis Bay port identified a suspect container on a vessel arriving from China. Upon arrival of the vessel, the authorities located and opened the container. Inside they found seven unmarked, nondescript, sealed steel drums. The accompanying shipping documents had no information about the specific contents of the drums, nor did they have any information about the identity of the intended recipient of the shipment. In a case of 'something feels wrong here', the officials seized the container and its cargo in the hope that the owner of the shipment would come forward to claim it and Customs and Excise could get some answers about the contents. At the time it was seized, the Customs and Excise staff had no capacity to open and test the contents of the container and did not request support from any other agency to that effect.

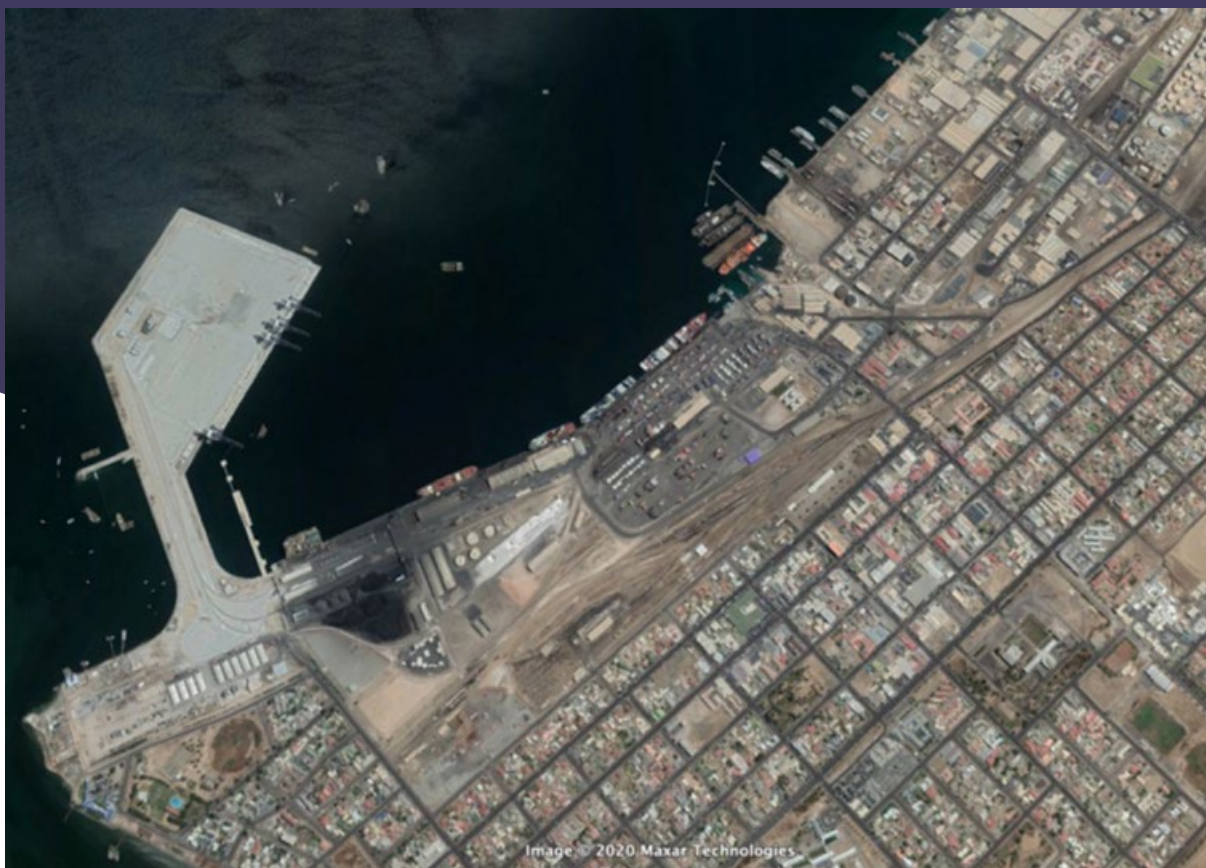
The photo on the following page shows an aerial view of the Walvis Bay port area, where this seizure took place. The photo below left shows seven unmarked, sealed steel drums as they appeared when Namibian customs officers opened the suspect container that had arrived from China. The photo on the right

shows a close-up of one of the containers with its non-descript markings. After several months had passed without anyone coming forward to claim the container and its cargo, and as is normal practice in such a situation of an abandoned shipment, customs authorities placed the abandoned (yet unknown) cargo up for auction. The drums were purchased at auction by 'a local businessman'.²⁰² Prior to releasing the drums into the custody of the successful bidder, the Namibian Police Force (NAMPOL) come forward to conduct a routine test of the liquid contents to confirm that the cargo was not a danger to the public prior to its release into the community. The chemical testing found that the drums contained safrole, a colourless oily liquid that was used as a food flavouring agent until it was discovered to be carcinogenic. More to the point, the primary use for safrole today is in the production of MDMA. Further investigation by NAMPOL determined that the successful auction bidder was likely to be the original intended recipient of the shipment (or acting as an agent of that person) and that the safrole drums were intended to be smuggled overland to their final destination – the clandestine MDMA laboratories of South Africa.²⁰³



Steel drums seized by Namibian customs authorities containing precursor material (left), and a close-up of one of the container markings.

SOURCE: Namibian Police Force




Aerial view of the Walvis Bay port area, Namibia.



THE REGIONAL METHAMPHETAMINE TRADE

The port of Beira, Mozambique. © AFP via Getty Images



In consideration of the findings documented in this research, a number of regional marketplace observations and operational characteristics can be identified:

- Within domestic drug markets, the price for meth has been reasonably constant, and prices were largely unaffected by the initial security and prevention measures put in place by governments to try to control the spread of COVID-19.
- Meth quality has improved significantly in the past four years. There is a pre-dominance of high-quality crystal meth available now, with only a peripheral presence of lesser quality (adulterated or cut) crystal. There was no evidence of meth tablets (the type most commonly consumed in many parts of East Asia) in any of the surveyed markets.
- There are few small independent meth distributors, unlike the heroin market where there are a variety of intermediate distributors and street dealers with a diversity of price points and quality. Meth market price points and supply channels appear to be controlled by a few syndicates. Distribution is strongly territorial in nature, and there is little variation in commodity volumes and packaging options. One can buy the same meth packaged the same way in almost every national marketplace. These markets appear to function in a quasi-cartel arrangement, with the South African market being the most structured.
- The research has not yet been able to identify proven instances of meth production taking place in Mozambique. However, it remains likely that such production does exist alongside what is most likely a more traditional methaqualone production environment still serving South Africa's longstanding Mandrax market, and an emerging high-quality crystal meth import and transit operation connected to Afghan meth production origin points and Pakistan-based departure points.

- South Africa remains the primary destination market for meth trafficking within the region. It would appear from some interviews – particularly those conducted in South Africa, Tanzania and Malawi – that some volume of meth moves from the region to overseas markets such as the European Union (EU), East Asia and Australia. In this case, it remains likely that the meth is moving from Nigerian production points in West Africa, transiting through eastern and southern African states and being smuggled overseas by air. One heroin and meth importer in Tanzania indicated that meth had been arriving by sea in Zanzibar alongside Afghan heroin since at least mid-2019. He believed that some or all of this meth was transported onward to the EU by air.²⁰⁴
- South Africa has a mature, embedded meth production and supply-based retail market. Emerging retail markets are evolving elsewhere in the region, reliant upon South African flows for supply, as well as those from Nigeria. The Afghan meth supply appears at this time to be focused on the South African market alone.
- Regional meth synthesis and industrial production capacities and efficiencies have advanced significantly in the past five years. This has resulted in an increase in the volume, purity, and overall quality of regional meth. Further, and adjusting for inflation, the retail price of meth in South Africa today is nearly half the price it was in 2004, while its reach has extended to most domestic drug markets in the region.
- Production supply points have changed in the past 10 years, since 2010. Historically, South Africa has been a primary producer of meth through the existence of numerous clandestine laboratory facilities supported by Chinese syndicate supply chains that bartered abalone for meth precursors. These chemicals were then converted in domestic laboratories located in the Gauteng region, with a few smaller facilities located in other provinces, including the Western Cape. It appears now that much of the regional meth production has moved from South Africa to Nigeria, as Nigerian syndicates – allegedly with technical assistance of a Mexican cartel – have evolved from being distribution intermediaries to being principal producers and global suppliers.
- Interviews have confirmed that a so-called Mexican meth supply chain is feeding the South African market from West Africa²⁰⁵ through transit points in Angola (Quatro de Fevereiro Airport in Luanda), Namibia (Hosea Kutako International Airport in Windhoek, but also the port of Walvis Bay) and the Democratic Republic of Congo (Lubumbashi International Airport). Much of it moves by air to either Johannesburg's OR Tambo International Airport or Cape Town International Airport, and by sea to the Port of Cape Town. These routes appear to overlap with the regional movement of cocaine, which is controlled also by Nigerian syndicates and significant volumes move from West Africa to southern Africa.
- A new production supply chain has emerged from South Asia, with strong evidence supporting the conclusion that meth produced in Afghanistan is being smuggled from Pakistan to eastern and southern Africa. This is being done through at least two routes. The first is by dhow from the Makran Coast to the Nacala to Pemba coast in northern Mozambique. This flow is organized by South Asian syndicates operating out of Mozambique and South Africa (mainly Cape Town) and exploits traditional heroin smuggling routes. The destination is South Africa. The alleged second route is used for smaller volumes (several kilograms rather than several hundred kilograms). The cargoes are shipped from Pakistan by dhow or by air to the United Arab Emirates, where they are transferred onto one of the twice-daily Emirates flights from Dubai to Cape Town. The second route apparently takes advantage of compromised airline and airport staff.
- In the years since it emerged in the South African market in 2016, Nigerian-produced Mexican meth has been the product leader in terms of perceived purity and overall quality. However, a new supply chain of ephedra-based Afghan meth, circulating since at least the end of 2019 – but in a comparatively lesser overall volume – has emerged as a significant rival in the domestic market.

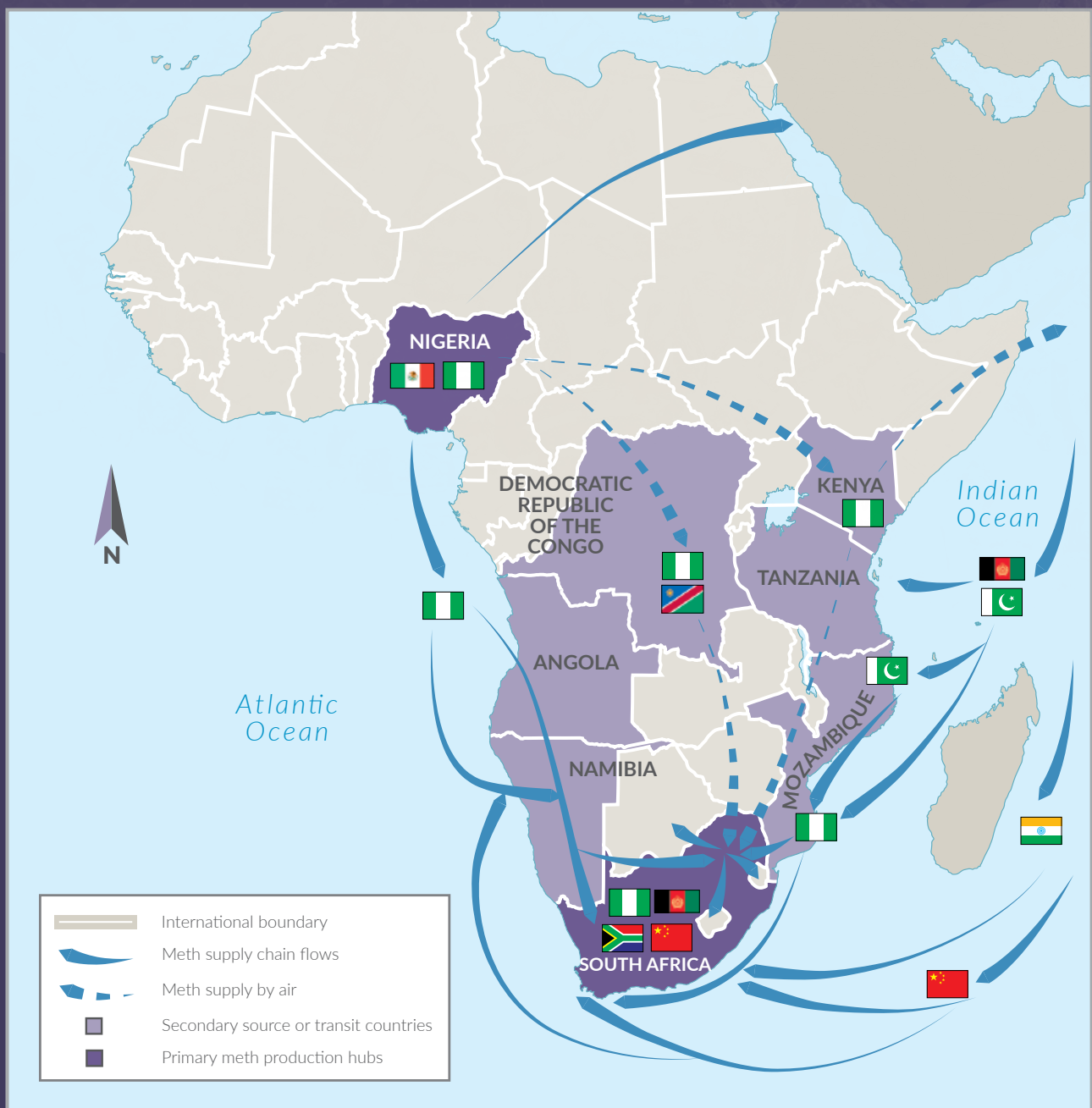


FIGURE 26 Estimated flows of methamphetamine and its precursors to and through eastern and southern Africa, indicating principal countries of origin.

- Some local meth production supported by Chinese syndicates continues in South Africa – mainly in and around the Gauteng area. However, its overall production volumes have declined since 2014. There is believed to be a relationship between the easing of domestic production capacity and the shift by Nigerian syndicates from an intermediary relationship with South African producers in favour of a more lucrative arrangement whereby they distribute their own West African-based supply. Existing synthetic drug production in South Africa and some neighbouring states appears to have progressed to the synthesis of methaqualone and MDMA for the South African market.
- South African gangs have played a key role in the development of the South African meth market. They continue to control the meth trade in large parts of the country. Today their suppliers are mainly producers based in Nigeria, with smaller amounts still being made locally. Little is known at this time of the relationship between the gangs and the emergent Afghan supply chain.
- Meth supply chains have experienced little disruption during the COVID-19 pandemic despite repeated lockdowns across the region. In fact, as this research has demonstrated, prices have declined throughout 2020. This may be because of the dwindling income of regular users affected by strict lockdown measures, in particular the restriction on movement. It may also be influenced by the fact that the meth market appears to be one of relative stability in terms of demand and the coordinated organization of retail market supply and distribution structures.
- Police corruption is rife within the domestic and regional meth trades, and the illicit market more generally. Myriad examples exist across the region of law enforcement officers stealing or selling confiscated drugs, as well as taking protection payments from local distributors, and arresting PWUD and extorting bribes from them in exchange for their release.

	South Africa	eSwatini	Lesotho	Botswana	Mozambique	Malawi	Kenya
							
							No photo available
Average price/g (local currency)	R343	E300	R425	P500	M29 000/kg	K21 000	\$5 000
Price range (where applicable)	R225 to R555	Not applicable	R400 to R450	P450 to P500	Wholesale	K20 000 to K22 500	Not applicable
Price converted to euros (at time of research)	17.66/g	15.41/g	22.15/g	37.17/g	0.35/g	2.08/g	39.57/g
Market type	Production/retail	Retail	Retail	Retail	Transit/production	Transit	Emerging retail

FIGURE 27 Market type and commodity price of methamphetamine across southern and eastern Africa.

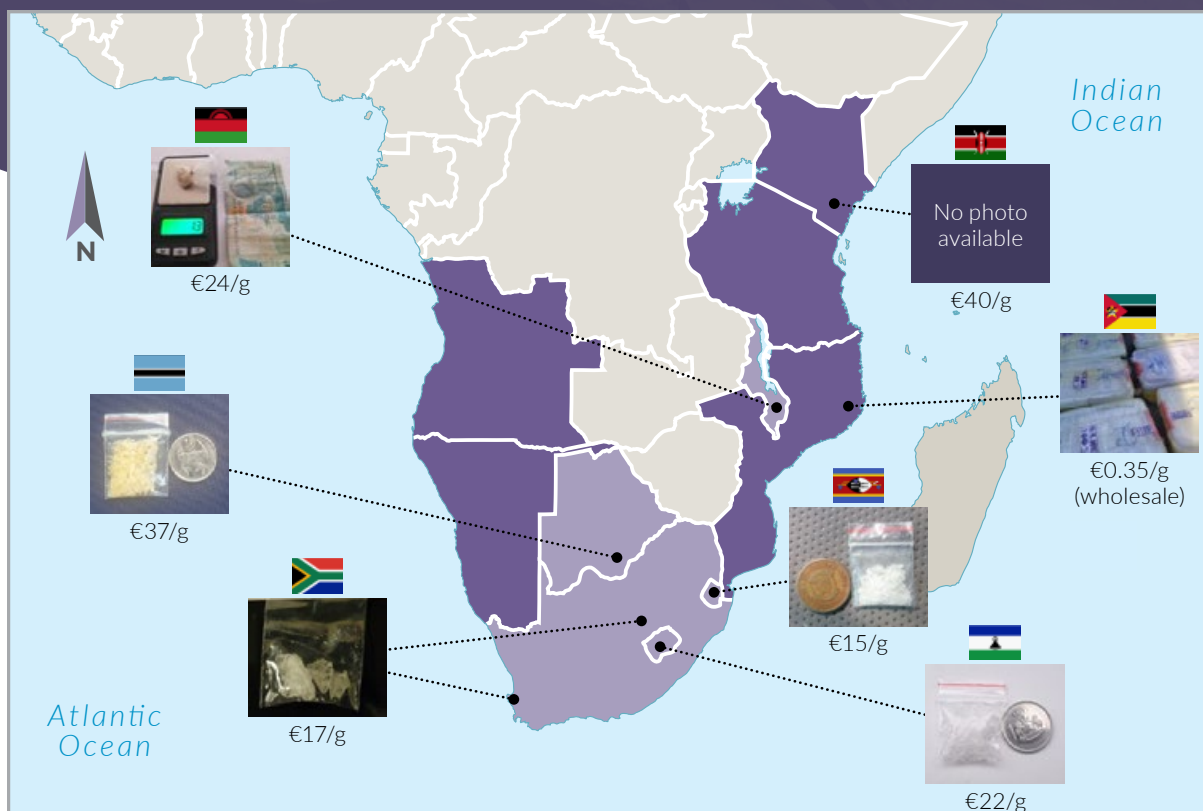


FIGURE 28 Retail market price (€/g) of methamphetamine across southern and eastern Africa, June 2020.

Challenges to the disruption of synthetic drug markets in eastern and southern Africa

The Mexican–Nigerian meth franchise model

Large-scale meth production is occurring in Nigeria, and most likely in one or more of its West African neighbours. As meth syndicates move to shorten their supply chains and expand their market reach, it appears that Nigeria has been established as a foothold in West Africa for Mexican meth cartels to use as a production and supply point for the East Asian and Australian markets. Enforcement within Nigeria is inadequate. Thus, disruption of this evolving meth production presence in Nigeria and neighbouring West African countries is unlikely in the short term.

Further, the presumed ephemeral use by Nigerian producers of the BMK meth production technique has improved their risk profile by reducing the need for the more strictly-monitored precursor substances (e.g. ephedrine and pseudoephedrine) and enabling them to focus instead on synthesis using unscheduled substances (e.g. sodium cyanide and

benzyl cyanide). As well as a likely change in production methods, a well-established and strongly networked presence in drug markets across southern Africa – both as meth, heroin and cocaine distribution intermediaries – provides these Nigerian syndicates with a lucrative and easily exploitable secondary distribution and supply target for their West African-based industrial production model.

The emergence of an Afghan meth supply chain

The apparent emergence of a South Asian meth supply chain linking Afghan meth to east and southern African consumer markets may become a game-changing development, particularly as this meth currently appears to be supplied in tandem with Afghan heroin shipments. The production of ephedrine and meth in Afghanistan appears to be in far greater volumes than initially thought, and there is no indication it may slow down in the immediate future.²⁰⁶

Furthermore, the resilience of traditional heroin distribution networks and supply chain flows from Afghanistan through Pakistan to African coastal destinations endures. Given their location and the current political and security climate, the disruption of these production points by Afghan or Pakistan law enforcement agents is improbable. A military intervention such as that undertaken in early 2019, when ISAF forces bombed dozens of Afghan-based laboratories, had no impact on production. Rather, local production in these areas appears to have increased significantly in the period since that intervention. Given the long and successful history of heroin moving from these Afghan areas and moving across Pakistan to coastal disembarkation points shows that the chain is unlikely to be broken by relevant authorities.

While the Combined Maritime Forces (CMF) continues to patrol a maritime domain encompassing the Indian Ocean waters around the Makran coast's heroin historical departure points, the volume of traditional trade vessels travelling through this extra-territorial jurisdiction makes interdiction a plausible yet unlikely risk for these illicit traders. That heroin supplies to the drug markets of eastern and southern Africa have been consistent and stable over the period 2019–2020 is testament to the fact that maritime drug supplies along this route must have been undisturbed by CMF interdiction efforts; or, more probably, that illicit drug trafficking in these waters has adapted to the interdiction 'rules of engagement' and high volume shipments are being made via other means – such as large steel-hulled container vessels.

Recent hyper-production of meth by South East Asian syndicates

Production of meth in the Golden Triangle appears to have significantly exceeded the equivalent of two billion pills a year and continues to show signs of further growth. The UN has expressed concern that this production expansion may be linked to a growing shift in production from a PE-based synthesis model to a BMK synthesis procedure.²⁰⁷ There are myriad other production locations in the region. Where is all this meth going? If Afghan meth

gets a foothold in the meth markets of eastern and southern Africa, then one has to consider whether the same may happen with *yaba*,²⁰⁸ the uniquely Asian tablets that are crushed and consumed on a regular basis by the poor and working-class populations of East Asia. As the economic challenges resulting from COVID-19 persisted into 2021 with no end in sight, the continued deterioration of most eastern and southern African economies seems likely. In turn, this will lead to increasing poverty and economic marginalization. As we have learned from the South African example, meth markets grow on the back of such economic fragility and uncertainty. As the pandemic continues, the threat of market expansion by South East Asian meth syndicates through the trafficking of *yaba* into the high-demand consumer meth markets of South Africa is a plausible development. After all, long-standing China-focused illicit commodity routings and flows linking the South East Asian region with African marketplaces already exist.

Quasi-legality²⁰⁹ and ignorance

It is becoming a challenge for front-line law enforcement officers to identify whether a substance is legal or illegal, particularly at the few locations where goods shipments are still subject to inspection – the region's international border crossings.

Many national law enforcement and border security bodies in the region lack sufficient training in identifying and seizing controlled substances. Street-based police officers, in particular, have reported that they are unable to distinguish between a variety of substances in terms of both identity and legality. Interviews with law enforcement officers have indicated that often seizures are made with a presumption of a substance's legality or otherwise (e.g. 'we're sure it's illegal even though we don't know what it is at the time').²¹⁰ Other seizure possibilities are overlooked for the same reason (e.g. 'we don't think it's something that is illegal'). The conflation of illicit substances with licit substances is not an uncommon limitation for border enforcement officers, nor for front line law enforcement. For example, khat is a plant that is not controlled by the international drug conventions

but is seized in many regional jurisdictions.²¹¹ The possession and use of cannabis, on the other hand, is modestly enforced in several jurisdictions despite it being explicitly controlled by the international drug conventions.

This ambiguity of enforcement will increase as several countries move to decriminalize (and even legalize) cannabis for medical or other purposes.²¹² The ambiguity about what is legal and what is not has become a more debilitating security threat in recent years as the market for synthetic drug production has expanded in the region, and a variety of precursors (both scheduled and unscheduled) now flood shipping ports as they transit to their production destinations. Many of these chemicals have licit purposes alongside their illicit ones.

Possessing the knowledge necessary to distinguish between legal and illegal substances is hampered also by the increasing inability of frontline officers to identify with certainty a substance once it has been detected. This is a result of the absence of field-testing capacity and equipment within most regional law enforcement bodies. The safrole seizure by customs authorities at the Walvis Bay port in Namibia, described earlier, is a good example of this challenge. While officials had good reason to suspect the shipment was problematic when they profiled the container and then opened it to find a collection of unmarked steel drums, they had no immediate field-based forensic means with which to check whether the substance inside the containers was (or was not) illegal. A second example can be drawn from Busia, along the Kenya–Uganda border. There, related GI-TOC research has determined that heroin has been traded in this region disguised in gel caps and distributed in resealed pharmaceutical blister packs.²¹³ Having the appearance of antibiotic packets, authorities lack the capability (through field test strips or identikits) of rapidly testing the contents to discern whether they are illegal (e.g. heroin) or legal (e.g. amoxicillin). Two local informants have alleged that other drugs (e.g. cocaine) have also been concealed in a similar fashion for distribution in the area.



These gelcaps, with the appearance of a pharmaceutical product, were revealed by users in a market along the Kenya–Uganda border. Upon closer inspection, one can see that the blister packs have been resealed. The gelcaps were a thicker version of the regular capsules. This sample contained heroin; others in the same area have been found to contain cocaine. Such techniques designed to thwart law enforcement interdiction would not be uncommon in the regional meth distribution market as well.

The emergence of a South Asian meth supply chain reaching southern African consumer markets may be a game-changer.

'Magical thinking'

African drug markets are vastly under researched. As a result, it is common to find evidence-based market information replaced by political prognostication, misguided analysis and inaccurate proxy metrics. In all countries surveyed (and among their neighbours too) it is clear that there is no reliable way of determining some of the basic marketplace denominators necessary to assess a drug market environment. These unknowns include what illicit drug commodities are available, the number of consumers, how they are consuming, and the frequency of their consumption.

There have been several attempts at quantification, but often these are based on an imperfect premise that leads to imperfect results. For example, the use of drug seizure data and drug treatment-seeking data are two common measures employed by some national government agencies to understand the drug markets and upon which to develop drug policy responses. However, if a drug is not seized, it does not mean that it is not available, nor does the volume of seizure have any definitive correlation to the characteristics of use within a marketplace. Similarly, the absence (or high or low numbers) of people seeking treatment for a substance does not, on its own, create a realistic picture of the characteristics of local PWUD behaviour and profiles. It is a type of magical thinking that attempts to draw conclusive decisions from irrelevant or incomplete datasets that often generate biased or inconclusive results. This has hampered the ability of policy-making bodies in the region to recognize that the lack of developed, science-based drug monitoring systems is making it impossible for countries to assess their local drug market environments to see how or if they are growing, adapting and evolving.

Transport corridors

The region's rapidly expanding transport corridors lack effective monitoring and prevention capacities to monitor, profile and interdict suspect cargos that may be in the growing number of containers on vehicles moving across the region. For example, there are 18 transport corridors in the Southern Africa Development Community (SADC) bloc, and none is effectively monitored or managed from this perspective. This means illicit goods move along these corridors with little fear of detection or interdiction.

Free trade and the movement of illicit goods

Ironically, we think that national and regional borders are porous now. Yet, the continued development of infrastructural nodes and networks linking cities and subregions across the continent, and the rapid move towards the implementation of the African Continental Free Trade Area from January 2021 will have a significant impact on the region's illicit drug markets. Already it appears that illicit goods travel relatively effortlessly across borders and boundaries, but these flows are still interrupted by a regimen of competing transport bureaucracies, law enforcement detection and interdiction assets and jurisdictions. While not by design, these regimens act as trade filters and collectively serve to slow the flow of illicit products. Ongoing moves toward greater efficiency for cross-border trade facilitation will be as advantageous for illicit traders as it will be for legal trade. Illicit microeconomic flows will continue to grow alongside this quest to build intra-African trade.

Corruption and incompetence

It is generally acknowledged that many law enforcement and other government officers are corrupt and are thus enablers of the illicit meth (and drugs) market rather than disablers of it. The corruption of law enforcement, and the way it has compromised officials and the operation of official facilities more broadly, may be the single greatest structural enabler of drug markets across the eastern and southern African region. Incompetence of officials in the execution of their duty and responsibility are also a fundamental concern of every law enforcement body in the region.²¹⁴ There are no serious measures in place to disrupt corrupt practices, and no government has demonstrated a willingness to tackle the structural components of endemic corruption apart from employing the language of 'anticorruption' for politically expedient purposes such as the 'settling of scores', the muzzling of opposition voices, or the disruption of democratic principles.

COVID-19 and African drug markets

The COVID-19 pandemic has been an experiment in market evolution. Initial data has demonstrated that despite many predictions of disruption and failure, the illicit meth market specifically – but illicit drug markets more broadly – have demonstrated a great degree of resilience during these socially and economically disruptive times. Drug prices have remained stable for the most part and supply has been uninterrupted in most places. Distributors have adapted to the changing availability patterns of their clients. At the same time, the police in many countries of the region have evolved into an increasingly violent extension of the state. As an institution, many law-enforcement bodies have become facilitators of state-sanctioned violence, thereby removing themselves from their assigned position as custodians of the law and protectors of the people.

Porous borders: illicit goods move relatively effortlessly across borders and boundaries in the region. Shown here is the Beitbridge border post. © Guillem

▼ Sartorio/AFP via Getty Images





CONCLUDING REMARKS: THE SYNTHETIC AGE

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Meth markets in eastern and southern Africa have benefited from a prolonged period of inattentive blindness. To paraphrase a local security consultant, 'we cannot see what we're not looking for'.²¹⁵ In eastern and southern Africa, there is a common belief among law enforcement and health authorities that while synthetic drugs (like meth) are an issue in South Africa, the threat has been contained largely to the Western Cape and some other urban areas. There is a view that it is a unique market, the toxic consequence of a bartering relationship between Chinese syndicates and Cape gangs, centred on peculiarities such as poached abalone. If meth use exists in neighbouring countries, it is the consequence of foreign 'others' importing the commodity and creating the demand. It is otherwise not viewed as a domestic concern.

Through the ongoing work of the GI-TOC, however, we know this to be untrue. Alongside expanding markets for heroin and cocaine, there is a growing synthetic drug problem advancing across the retail markets of eastern and southern Africa, one that is being punctuated by the evolving presence of meth and meth precursors as well as other synthetic substances.²¹⁶ These substances are moving alongside other illicit commodities and across both traditional and newly emerging trafficking routes.²¹⁷ The consumer base for meth in South Africa appears to be significantly greater than initially imagined. Furthermore, meth appears now to have market footholds in eSwatini, Lesotho, Botswana, Mozambique, Malawi, Zambia, Zimbabwe, Uganda and Kenya.²¹⁸ While still being produced in South Africa, Nigerian-based production flows appear to have assumed a dominant role in the supply of markets in southern Africa.

A new flow appears to have emerged out of Afghanistan, along the so-called Afghan heroin 'southern route', landing in Africa in both Tanzania and Mozambique with the aim of feeding the growing base of southern African users. This evolution of a regional meth market should not be a surprise. That southern Africa now is a node in the global meth supply chain connecting both the cartels of Mexico in the west and the Taliban provinces of Afghanistan to the east, has, in many ways, been inevitable.

Even during its apartheid years, South Africa had a strong synthetic drug market base in place, one that was intricately linked to smuggling networks and supply channels throughout its neighbours. Since the 1994 democratic transition, this base has only expanded, driven by – among many other things – a combination of sustained inequitable development, poor border management policies and policing, corruption and political indifference. The market grew in communities that were forced to exist in the shade of the new democratic prosperity, and that have had to contend with increasing urban insecurity and unchecked criminal violence.

Meth, more than heroin or cocaine, is a substance of urban decay. It is a consequence of the inevitability of criminal governance systems and structures that have usurped national authorities' influence in many urban centres of South Africa and threaten to do the same in similarly vulnerable communities throughout neighbouring states. This new synthetic drug age should be seen as a significant threat to those communities whose populations will continue to suffer in a challenging existence that is compounded by coronavirus pandemic control measures and, if infection eventually wanes, through the inevitable recovery years of economic hardship that will follow.²¹⁹

In light of these challenges, and in recognition of illicit drug markets as being a lesser priority among many regional interdiction bodies, prospects for tackling meth markets in the region are bleak. It is more likely that synthetic drug markets across the region will continue to expand. It is likely also that the industrial production of meth in large volumes in South East Asia will reach African shores in the near future – if it hasn't done so already.²²⁰ The emergence of meth tablets alongside the current crystal meth formulation is another inevitability. Reaching out of South Africa, the trade is likely to spread beyond neighbouring SADC and East African Community countries.²²¹ Meth tablets could even be the foundation of increased regional growth, based on the way they contributed to the increased demand for meth across South East Asia.

Yet at present, inattentive blindness continues to infect the policies and programmes of national and regional health and law enforcement bodies. Still, they are not seeing what they are not looking for. Instead, they argue against that which neither corresponds to their misunderstanding of the world around them, nor fits neatly into the scene upon which they have fixed their gaze, and their careers. Adaptation, transformation and evolution are all established features of organized criminal market responses to threats and opportunities.²²² As a consequence, the region appears to be on the precipice of a synthetic drug market surge, driven by externally-based industrial meth production and growing domestic consumer bases, but cultivated also by wilful ignorance, endemic corruption and a stubborn retention by potential market interlocutors of aged African drug market fictions rather than current and tangible truths.

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 - 26 UN, Transnational organized crime in Eastern Africa: A threat assessment, UNODC, 2013; UN, The Afghan opiate trade and Africa – a baseline assessment, UNODC, 2016; S Haysom, P Gastrow and M Shaw,

- The heroin coast: A political economy along the East African seaboard, ENACT, June 2018.
- 27 Kenya, Malawi, eSwatini and Lesotho.
- 28 RDS is a chain-referral sampling methodology of estimability employed in qualitative research on hard-to-reach populations. Sampling these populations is challenging because most standard sampling methodologies require a sampling frame derived from a list of sample population members. For hard-to-reach populations such as PWUD, generally the size is small relative to the population of those who do not use drugs, while often PWUD populations can be geographically dispersed, and difficult for outsiders to penetrate. See Douglas Heckathorn, Snowball versus respondent-driven sampling, *Sociological Methodology*, 2011, 41, 1, 355–366. See also Stephen Kimani, Melissa Watt, M. Giovanna Merli, et al, Respondent driven sampling is an effective method for engaging methamphetamine users in HIV prevention research in South Africa, *Drug and Alcohol Dependence*, 2014, 143, 134–140.
- 29 Renewed drug use crackdowns by security authorities in several of the countries under research led informants to limit the time and the breadth of their input to researchers. Fear of arrest, or of saying something in the interview that may be overheard by others and viewed as incriminating, contributed to the reluctance of some PWUD to be involved in the research. Another factor was COVID-19 and the measures put in place by organizations and countries to limit transmission.
- 30 Joseph Hanlon, Mozambique: police sold 100kg of seized drugs on black market, *Carta de Moçambique*, 21 April 2020, <https://allafrica.com/stories/202004270835.html>; Nicole McCain, Cops arrested after allegedly stealing confiscated drugs, *News24*, 8 August 2020, <https://www.news24.com/news24/southafrica/news/cops-arrested-after-allegedly-stealing-confiscated-drugs-20200808>.
- 31 United Nations, South Africa country profile on drugs and crime: part 1: drugs, United Nations Office for Drug Control and Crime Prevention (UNODCCP), Pretoria, 1999, 13.
- 32 The reference to synthetics in this report not only relates to the emerging market for synthetic cannabinoids and the stable markets that exist for both MDMA and methaqualone, but also to the plethora of new psychoactive substances that are being developed as licit (in the sense that they are not yet banned) analogues for those that continue to populate the ever-expanding schedules of the International Narcotics Control Board.
- 33 Ted Leggett, *Rainbow Vice: The Drugs and Sex Industries of the New South Africa*, Zed Books, London, 2002, 18.
- 34 The programme was called 'Project Coast'. For further details on this state-sponsored initiative see Ted Leggett, *Rainbow vice: The Drugs and Sex Industries of the New South Africa*, Zed Books, London, 2002, 48.
- 35 Truth and Reconciliation Commission, *Special investigation into Project Coast*, Volume 2, Chapter 6, Final Report, Cape Town, 1999, para. 20. As a side note, this finding raises speculation about the reported Mandrax laboratory seizure in 1987. While not a subject of this research, it would be interesting to understand the operational history around this seizure. Was it motivated by security authorities' desire (on one side of the government) to crack down on an omnipresent yet recently scheduled substance that, unknown to them, another side of the government was proven to be manufacturing and distributing? After all, this wouldn't have been an uncommon scenario. For even though methaqualone was placed under limited international control in 1979, it was still being produced commercially in some countries (like the United States) until 1985. Alternatively, was this seizure about a knowing state taking down a rival Mandrax production operation in a move to thwart competitive manufacture of this drug by organized black South Africans during a time of sociopolitical upheaval? It is a subject worthy of further inquiry, perhaps.
- 36 Ted Leggett, *Rainbow Vice: The Drugs and Sex Industries of the New South Africa*, Zed Books, London, 2002.
- 37 Mark Shaw, Organised crime in post-apartheid South Africa, Institute for Security Studies, Occasional paper no. 28, January 1998.
- 38 Ibid. In the apartheid years it has been argued that South African law enforcement bodies had no notion of 'organized crime' or 'organized criminal groups' as constructs requiring both an understanding and a response. In fact, these terms were not even part of their law enforcement lexicon. See Jonny Steinberg, The illicit abalone trade in South Africa, Institute for Security

Studies, ISS paper no. 105, April 2005, 3. In addition to Steinberg's lexicon argument, it has been argued also that during apartheid, South African law enforcement bodies were focused largely on quelling political dissent. As a result, they did not pay much attention to the presence and activities of foreign criminal interests and their efforts to establish networks in the country. Mark Shaw, West African criminal networks in southern Africa, *African Affairs*, 101 (2002), 291–316, 297. As a result, it is plausible that such organized criminal groups could have been entrenched in the country for much longer than authorities have acknowledged.

39 Ted Leggett, *Rainbow Vice: The Drugs and Sex Industries of the New South Africa*, Zed Books, London, 2002.

40 Jonny Steinberg, The illicit abalone trade in South Africa, Institute for Security Studies, ISS paper no. 105, April 2005.

41 A 'catch quota' system had been in place already for the previous 20 years and was acknowledged by fishers as having operated with reasonable success.

42 Jonny Steinberg, The illicit abalone trade in South Africa, Institute for Security Studies, ISS paper no. 105, April 2005, 7.

43 Annette Hübschle and Kimon de Greef, An exploration of the socioeconomic impacts of two drug markets in South Africa, USAID technical report, Management Systems International, Virginia, 9 May 2016.

44 Anthony Minnaar, Leandri van Schalkwyk and Sarika Kader, The difficulties in policing and combatting of a maritime crime: the case of abalone poaching along South Africa's coastline, *Journal of the Indian Ocean Region*, 14, 1 (2018), 71–87, 80.

45 See the discussion of the struggle around traditional fishing rights and the impact on Cape communities as outlined in Annette Hübschle and Kimon de Greef, An exploration of the socioeconomic impacts of two drug markets in South Africa, USAID technical report, Management Systems International, Virginia, 9 May 2016, 29–31.

46 Serge Raemaekers and Peter Britz, Profile of the illegal abalone fishery (*halotis midae*) in the Eastern Cape province, South Africa: Organized pillage and management failure, *Fisheries Research*, 97, 2009, 183–195, 193.

47 Khalil Goga, The illegal abalone trade in the Western Cape, ISS paper 261, August 2014.

48 Derica Lambrechts and Khalil Goga, Money and marginalisation: The lost war against abalone poaching in South Africa, *Politikon*, 43, 2016, 231–249, 238.

49 Anthony Minnaar, Leandri van Schalkwyk and Sarika Kader, The difficulties in policing and combatting of a maritime crime: The case of abalone poaching along South Africa's coastline, *Journal of the Indian Ocean Region*, 14, 1 (2018), 171–87; Jonny Steinberg, The illicit abalone trade in South Africa, Institute for Security Studies, ISS paper no. 105, April 2005.

50 United Nations, South Africa country profile on drugs and crime: part 1: drugs, United Nations Office for Drug Control and Crime Prevention (UNODCCP), Pretoria, 1999.

51 Siphokazi Dada et al, Research brief: Monitoring alcohol, tobacco and other drug use trends in South Africa (July 1996–December 2018), 22, 2019, SACENDU, Pretoria; Mark Schoofs, As meth trade goes global, South Africa becomes a hub, *Wall Street Journal*, 21 May 2007, <https://www.wsj.com/articles/SB117969636007508872>.

52 United Nations, South Africa country profile on drugs and crime: part 1: drugs, United Nations Office for Drug Control and Crime Prevention (UNODCCP), Pretoria, 1999, 15.

53 Ibid.

54 Ibid.

55 SACENDU reports indicate that meth surpassed alcohol as the primary substance of use in the Western Cape in the second half of 2005. Siphokazi Dada et al, Research brief: Monitoring alcohol, tobacco and other drug use trends in South Africa (July 1996–December 2018), SACENDU, Pretoria, 22, 1 (2019), 15. In the latest figures available, SACENDU reports that methamphetamine (39 per cent), cannabis (39 per cent) and alcohol (33 per cent) remain the most used substances in the Western Cape. SACENDU, Monitoring alcohol, tobacco and other drug abuse treatment admissions in South Africa, Phase 45, South Africa Medical Research Council, Pretoria, October 2019, 8. It is important to note that this data is based upon metrics grounded in information gathered from the subset of PWUD who entered treatment services during the reporting period. Whether these SACENDU numbers are an accurate representation of wider drug market consumption characteristics is a point for consideration.

- 56 Statistics provided by the Forensic Sciences Laboratory (FSL), South Africa.
- 57 Ibid.
- 58 Ibid. Following arrest, if a decision is made to seek prosecution of an individual for a drug use possession offence then the seized substance(s) are required to be tested by the FSL in order to determine and confirm substance composition. Thus, it is possible that 'number of arrests' for drug crimes does not equal the number of FSL cases examined. This is because there will be many arrests that are not pursued for prosecution, the individual is released, and the seized substances are not required to be sampled.
- 59 Statistics provided by the SAPS.
- 60 Siphokazi Dada et al, Research brief: Monitoring alcohol, tobacco and other drug use trends in South Africa (July 1996–December 2018), SACENDU, Pretoria, 22, 1, 2019.
- 61 Ibid.
- 62 Mouhamadou Kane, Meth has found its market in Nigeria, ENACT Africa, 29 August 2019, <https://enactafrica.org/enact-observer/meth-has-found-its-market-in-nigeria>.
- 63 National Drug Law Enforcement Agency (NDLEA), NDLEA dismantles methamphetamine syndicate, NDLEA press release, Nigeria, 8 April 2009, <https://ndlea.gov.ng/new-and-event/ndlea-dismantles-methamphetamine-syndicate/>.
- 64 United Nations, Transnational organized crime in West Africa: a threat assessment, UNODC, Vienna, 2013, 19. On a related note, while this was the first operational meth production facility interdicted in West Africa and one linked to the drug cartels of Mexico, it should be noted that two years earlier in May 2010 the US government indicted members of a large South American drug organization on charges that they had been in the process of establishing a large-scale meth production laboratory in Liberia.
- 65 United Nations, Transnational organized crime in West Africa: a threat assessment, UNODC, Vienna, 2013, 19.
- 66 Bureau of International Narcotics and Law Enforcement Affairs (INL), 2020 INCSR – Volume I: drug and chemical control (as submitted to Congress), US Department of State, Washington DC, 2 March 2020, 48.
- 67 Quenton King, Four Mexicans arrested in meth 'super lab' bust in Nigeria, InsightCrime, 16 March 2019, <https://www.insightcrime.org/news/brief/four-mexicans-arrested-in-meth-super-lab-bust-nigeria/>.
- 68 Mexican cartels expand into new markets, *El Universal*, 1 July 2017, <https://www.eluniversal.com.mx/articulo/english/2017/07/1/mexican-cartels-expand-new-markets>.
- 69 Sultan Khan and Shanta Singh, The economics of transnational organized crime (TOC) in the maritime domain: drug trafficking in Africa and the southern African continent, *Journal of Social Science*, 41, 2014, 523–534.
- 70 David Lewis, Special report: West Africa's alarming growth industry – meth, Reuters, 24 July 2015, <https://www.reuters.com/article/us-africa-drugs-meth-special-report-idUSKCN0PYOWS20150724>.
- 71 United Nations, Transnational organized crime in West Africa: A threat assessment, UNODC, Vienna, 2013, 23.
- 72 Ibid.
- 73 INTERPOL, Operation targeting drug trafficking nets couriers in Latin America and Africa, INTERPOL press release, 8 October 2015, <https://www.interpol.int/en/News-and-Events/News/2015/Operation-targeting-drug-trafficking-nets-couriers-in-Latin-America-and-Africa>.
- 74 As quoted in NDLEA, Super laboratory: NDLEA arraigns 4 Mexicans, 5 Nigerians, NDLEA press release, April 2016, <https://ndlea.gov.ng/new-and-event/super-laboratory-ndlea-arraigns-4-mexicans-5-nigerians/>.
- 75 Ibid.
- 76 Jason Eligh, Crisis and opportunity: Impacts of the coronavirus pandemic and illicit drug markets, GI-TOC, 2020.
- 77 Jason Eligh, A shallow flood: The diffusion of heroin in eastern and southern Africa, GI-TOC, 2020.
- 78 This market valuation research was continuing at the time of writing.
- 79 For example, a client will ask for a R50 packet of meth and not an eighth of a gram of meth, which is – all other things being equal – about the volume of a R50 packet.
- 80 It is unlikely that a PWUD would purchase one kilogram of meth at a time. Even during the COVID-19 lockdown, the bulk purchases made by wealthy meth users were no more than a few hundred grams at a time. Kilogram purchases would be reserved for tertiary dealers and the price per gram charged to them would be closer to the wholesale price paid by import distributors than to the bulk purchase retail price quoted by local dealers.

- 81 Jason Eligh, *A Shallow Flood: The diffusion of heroin in eastern and southern Africa*, GI-TOC, Geneva, 2020, 34–49.
- 82 For example, see Jason Eligh, *Crisis and opportunity: Impacts of the coronavirus pandemic on illicit drug markets*, GI-TOC, Geneva, 2020, 14, for a discussion of the alleged Mexican cartels' control over the universal pricing of meth in the American markets they supply.
- 83 Jonny Steinberg, *The illicit abalone trade in South Africa*, Institute for Security Studies paper 105, 2005, 3.
- 84 The annual reports issued by SAPS, which contain their arrest and seizure statistics, among many other things, do not provide any significant or meaningful intelligence about the illicit drug market. The reports have no common structure year-to-year and there appears to be no standardized statistical approach to the reporting of figures apart from the regurgitation of lists of numbers. For example, a report may indicate that a large number of drug laboratories were seized in the reporting year, but it will not include information such as what they were manufacturing, where they were located, whether they were linked to other criminal enterprises (such as organized crime) or anything that might enable a better understanding of the situation. In fact, it is unclear if SAPS reporting uses standardized definitions for the information. For example, what must be present (or absent) for something to be classified as a 'drug lab'? Could it include the cultivation of cannabis plants in a bedroom? Of course, this criticism may be misdirected because this may not be the purpose of these reports at all. They appear, rather cynically, to be politically orientated tools instead of information provision portals. To their credit, the SAPS does indicate that if more detailed information is desired, a request may be submitted under the Promotion of Access to Information Act, although response rates are notoriously poor. Experience from our researchers has shown that unofficial inquiries around seizure specifics only raise suspicions about the motivations of the inquirer. In one case during this research, the inquirer was an off-duty police officer from another precinct who faced rigorous scrutiny and was threatened with arrest for inquiring about packaging characteristics found in seizure photos even though the SAPS had already released these into the public domain.
- 85 United Nations, *Transnational organized crime in West Africa: a threat assessment*, UNODC, Vienna, 2013, 23; Bureau of International Narcotics and Law Enforcement, *International narcotics control strategy report: Volume 1: Drug and chemical control*, US Department of State, Washington D.C., March 2020, 201; INTERPOL, *Operation targeting drug trafficking nets couriers in Latin America and Africa*, INTERPOL press release, 8 October 2015, <https://www.interpol.int/en/News-and-Events/News/2015/Operation-targeting-drug-trafficking-nets-couriers-in-Latin-America-and-Africa>.
- 86 United Nations, *Transnational organized crime in West Africa: a threat assessment*, UNODC, Vienna, 2013, p23; INTERPOL, *Operation targeting drug trafficking nets couriers in Latin America and Africa*, INTERPOL press release, 8 October 2015, <https://www.interpol.int/en/News-and-Events/News/2015/Operation-targeting-drug-trafficking-nets-couriers-in-Latin-America-and-Africa>.
- 87 NDLEA investigators quoted in Agence France-Presse (AFP), *Exposed: how drugs produced in Nigeria find their way into South Africa*, *The South African*, 20 December 2018, <https://www.thesouthafrican.com/news/nigeria-drugs-in-south-africa-meth/>. The Chairman of the NDLEA, Col Muhammad Mustapher Abdallah, quoted in NDLEA, *Super laboratory: NDLEA arraigns 4 Mexicans, 5 Nigerians*, NDLEA press release, April 2016, <https://ndlea.gov.ng/new-and-event/super-laboratory-ndlea-arraigns-4-mexicans-5-nigerians/>.
- 88 'Pakistani meth' is a misnomer of sorts. The meth is more likely supplied by a syndicate composed of South Asians who share a common language and religion. While Pakistanis do appear to make up a sizeable cohort of this group, the group should not be viewed as being exclusively Pakistani in nationality. It could include individuals of Indian, Iranian and Afghani origin, as well as several other nationalities.
- 89 GITOC, *Under the shadows: Illicit economies in Iran*, GI-TOC, October 2020; EMCDDA, *Emerging evidence of Afghanistan's role as a producer and supplier of ephedrine and methamphetamine*, EU4MD special report, EMCDDA, Luxembourg, November 2020.
- 90 Informant CT1, personal communication, June 2020.
- 91 Dan Meyer, *Truck driver caught with R30 million drug cargo at Mozambique border*, *The South African*, 25 May 2020. <https://www.thesouthafrican.com/news/drug-bust-mozambique-heroin-meth-cocaine/>.
- 92 Senior law enforcement source in Mozambique, January 2021.

- 93 The retail market role of street dealers and low-level distributors appears to be adjusting at present to the increased flow of Afghan meth into the marketplace, and the impact this new supply chain is having on the status quo.
- 94 The Americans are the largest of the Cape Flats gangs and are credited with having introduced meth to the Western Cape drug market following their relationship with Chinese traders in the illicit abalone marketplace in the mid-1990s. The Hard Livings are the fourth largest gang in the area and, together with the Terrible Josters, are alleged to be heavily involved in the South African meth trade.
- 95 As cited in Fogarty International Centre, Meth takes a toll in South Africa, US National Institutes of Health, Bethesda, 10, 2, 2011, <https://www.fic.nih.gov/News/GlobalHealthMatters/April2011/Pages/meth-south-africa.aspx>.
- 96 One community activist source who has worked with drug using communities in South Africa for more than a decade indicated that they had never seen meth tablets available for sale in the country. Methamphetamine pills (*yaba*, pills which combine meth with caffeine) are a predominant feature of meth markets in South East Asia. Meth is not retailed in a powder form. While meth crystals could be crushed and presented for sale in a near powdered form, it is more likely that any powdered substances that are sold as meth are instead the related stimulant, methcathinone (or 'cat').
- 97 SACENDU, Monitoring alcohol, tobacco and other drug abuse treatment admissions in South Africa, October, Phase 45, South Africa Medical Research Council, Pretoria, 2019.
- 98 Ibid.
- 99 Ibid.
- 100 WhatsApp was found to be regularly used by a subset of middle-class PWUD to communicate with the meth retail distribution network, and the wider meth-using community in general. Its use ranged from simple contact to order meth and arrange delivery to the use of chat groups for communication within and between groups. Certainly, it is believed by researchers that the COVID-19 lockdowns may have influenced the adoption of WhatsApp (and other social apps) as a communication method within some local drug markets. An examination of this matter was not included in this research but may warrant further study in future.
- 101 The COVID-19 delivery price quoted was for the Cape Town area, but similar charges were found to be in use in most other meth retail markets across the country. These meth delivery charges were present also in neighbouring countries. This issue of supplier adaptation to COVID-19 drug delivery (e.g. changing prices, delivery means, fees) was discussed in Jason Eligh, Crisis and opportunity: Impacts of the coronavirus pandemic on illicit drug markets, GI-TOC, 2020. See also Erika Solomon, Berlin's drug dealers adapt to life under coronavirus lockdown, *Financial Times*, 4 April 2020, <https://www.ft.com/content/4c2c149b-af73-4f07-8b13-67b264f2f7aa>; and Lindsey Kennedy and Nathan Paul Southern, How to run a criminal network in a pandemic, *Foreign Policy*, 5 September 2020, <https://foreignpolicy.com/2020/09/05/pandemic-criminal-network-drug-dealers-human-traffickers/>.
- 102 Simon Baynham, The fourth horseman of the Apocalypse: Drug trafficking in Africa, *Africa Insight*, 25, 1995, 149–153, 151.
- 103 Ibid., 151.
- 104 For example, 16 police officers stationed at OR Tambo Airport in Johannesburg were arrested for selling drugs they had confiscated from drug couriers. Edwin Ntshidi, 16 police officers arrested at OR Tambo drug bust to appear in court, *Eyewitness News*, 2020, <https://ewn.co.za/2020/08/11/16-police-officers-arrested-at-or-tambo-drug-bust-to-appear-in-court>. See also Jonisayi Maromo, SAPS members are involved in Pretoria drug trade, says Tshwane MMC, IOL, 24 September 2019, <https://www.iol.co.za/news/south-africa/gauteng/saps-members-are-involved-in-pretoria-drug-trade-says-tshwane-mmc-33501490>. Of course, the problem of law enforcement being directly involved in the drug trade is not restricted to South Africa.
- 105 SACENDU, Monitoring alcohol, tobacco and other drug abuse treatment admissions in South Africa, October, Phase 45, South African Medical Research Council, Pretoria, 2019.
- 106 Ibid.
- 107 Ibid.
- 108 Ibid.
- 109 Ibid.
- 110 Ibid.
- 111 Ibid.
- 112 Using proxy indicators to estimate drug using populations sizes, or the size of other hard-to-reach

- populations for that matter (e.g. sex workers) has been a long-standing academic challenge. In the context of the current research, challenges to the use of treatment data for this purpose are discussed in Ronald Simeone, William Nottingham and Lynn Holland, Estimating the size of a heroin-using population: an examination of the use of treatment admission data, *International Journal of Addiction*, 28, 2 (1993), 107–128.
- 113 EMCDDA, Wastewater analysis and drugs: a European multi-city study, Lisbon, 2020, 1.
- 114 Ibid.
- 115 Ann-Kathrin McCall et al, Critical review on the stability of illicit drugs in sewers and wastewater samples, *Water Research*, 88, 2016, 933–947.
- 116 Benjamin Tscharke, Chang Chen, Jacobus Gerber et al, Trends in stimulant use in Australia: A comparison of wastewater analysis and population surveys, *Science of the Total Environment*, 536, 2015, 331–337, 331.
- 117 EMCDDA, Wastewater analysis and drugs: A European multi-city study, Lisbon, 2020.
- 118 Usman Khan et al, Application of a sewage-based approach to assess the use of ten illicit drugs in four Chinese megacities, *Science of the Total Environment*, 487, 2014, 710–721.
- 119 Lubertus Bijlsma et al, Estimation of illicit drug use in the main cities of Colombia by means of urban wastewater analysis, *Science of the Total Environment*, 565, 2016, 984–993.
- 120 Foon Yin Lai et al, Estimating daily and diurnal variations of illicit drug use in Hong Kong: a pilot study of using wastewater analysis in an Asian metropolitan city, *Forensic Science International*, 233, 2013, 126–132.
- 121 Peng Du et al, Monitoring consumption of common illicit drugs in Kuala Lumpur, Malaysia, by wastewater-based epidemiology, *International Journal of Environmental Research and Public Health*, 17, 2020, 889.
- 122 Ki Yong Kim et al, The first application of wastewater-based drug epidemiology in five South Korean cities, *Science of the Total Environment*, 2015, 524–525, 440–446.
- 123 Bikram Subedi and Kurunthachalam Kannan, Mass loading and removal of select illicit drugs in two wastewater treatment plants in New York State and estimation of illicit drug usage in communities through wastewater analysis, *Environmental Science and Technology*, 48, 2014, 6661–6670.
- 124 Edward Archer et al, Wastewater-based epidemiology and enantiomeric profiling for drugs of abuse in South African wastewaters, *Science of the Total Environment*, 625, 2018, 792–800.
- 125 Ibid.
- 126 Ibid.
- 127 For the East Rand location, the population was 200 000 and for the Cape Town location, 470 000.
- 128 This rate was calculated using the November 2020 mean price (R287) for one gram of meth in Cape Town, the 2004 mean price (R225) for one gram of meth in Cape Town, and an inflation adjustment factor of 225.02 as calculated by inflationtool.com. The 2004 meth price was derived from Simon Howell, Nadine Harker-Burnhams, Loraine Townsend and Mark Shaw, The wrong type of decline: Fluctuations in price and value of illegal substances in Cape Town, *South Africa Crime Quarterly*, 54, 2015, 47. The November 2020 mean price was a product of this research.
- 129 UN Convention against illicit traffic in narcotic drugs and psychotropic substances, United Nations, 1988, https://www.unodc.org/pdf/convention_1988_en.pdf.
- 130 Heroin is derived from the gum of the opium poppy plant, and cocaine is derived from the leaves of the coca bush.
- 131 This list is a simplified version of a general schema included in EMCDDA and EUROPOL, EU drug markets report 2019, EMCDDA and EUROPOL, Luxembourg, 2019, 161.
- 132 For BMK the potential routes of synthesis include the Leuckart method, and reductive amination. For PE the potential routes of synthesis include the Nagai method, the Emde method, the Hypo method, the Moscow method, the Rosenmund method, and the Birch method. See Isaac Onoka et al, A review of the newly identified impurity profiles in methamphetamine seizures, *Forensic Science International: Synergy*, 2, 2020, 194–205.
- 133 Impurity profiling is a technique used to analyze meth in order to identify its chemical signatures. This information may assist in identifying the synthesis process, adulterants, supplier, network, origin and even cooking method of a sample. Impurity profiling of meth samples in South Africa was an original component of this research. However, because of the apparent political sensitivity of the subject matter and its potential findings, the agreed-upon profile sampling activity was withdrawn by the research partner.

- 134 Jae Sin Lee et al, Analysis of the impurities in the methamphetamine synthesized by three different methods from ephedrine and pseudoephedrine, *Forensic Science International*, 161, 2006, 209–215. Note: BMK is also called phenylacetone and known by the acronym P2P. BMK and P2P are interchangeable. In this report we use BMK.
- 135 US Drug Enforcement Administration (DEA), National drug threat assessment: December 2019, US Department of Justice, Document DEA-DCT-DIR-007-20, Washington DC, 2020, 51–52.
- 136 Ibid., 51.
- 137 United Nations, Synthetic drugs in East and Southeast Asia: Latest developments and challenges, UNODC, Vienna, May 2020, 15.
- 138 See 'Project Coast' and its discussion in Ted Leggett, *Rainbow Vice: The Drugs and Sex Industries of the New South Africa*, Zed Books, London, 2002; and Truth and Reconciliation Commission, Special investigation into Project Coast, Volume 2, Chapter 6, Final Report, Cape Town, 1999.
- 139 Sources were varied in their estimation of the timing of this change. The majority placed it at two or three years ago (i.e. 2017–2018), while a few others dated it at four years ago (2016). Further investigation is necessary on this point. Of course, and as already indicated in the text, it is likely that meth synthesis can alternate between PE and BMK production techniques, depending largely on the availability of specific precursors and other disruption factors. These supply models appear to contain a large degree of adaptability in their implementation.
- 140 US Drug Enforcement Administration (DEA), National drug threat assessment: December 2019, US Department of Justice, Document DEA-DCT-DIR-007-20, Washington D.C., 2020.
- 141 Bureau of International Narcotics and Law Enforcement Affairs (INL), 2020 INCSR – Volume I: drug and chemical control (as submitted to Congress), US Department of State, Washington DC, 2 March 2020.
- 142 Danielle Stoneberg, Rashi Shukla and Matt Magness, Global methamphetamine trends: an evolving problem, *International Criminal Justice Review*, 28, 2018, 136–161, 149–150.
- 143 C Nwannennaya and TF Abiodun, Illicit drug trafficking in Nigeria: obstacle to national development and Security, *Journal of Political Sciences and Public Affairs*, 5, 1, 2017, <https://www.longdom.org/open-access/illegal-drug-trafficking-in-nigeria-obstacle-to-national-development-and-security-2332-0761-1000230.pdf>.
- 144 EMCDDA, Emerging evidence of Afghanistan's role as a producer and supplier of ephedrine and methamphetamine, EU4MD special report, November 2020, Luxembourg.
- 145 David Mansfield and Alex Soderholm, Long read: The unknown unknowns of Afghanistan's new wave of methamphetamine production, LSE US Centre, 30 September 2019, <https://blogs.lse.ac.uk/usappblog/2019/09/30/long-read-the-unknown-unknowns-of-afghanistans-new-wave-of-methamphetamine-production/>.
- 146 David Mansfield and Alex Soderholm, New US airstrikes obscure a dramatic development in the Afghan drugs industry – the proliferation of low cost methamphetamine, LSE US Centre, 28 May 2019, <https://blogs.lse.ac.uk/usappblog/2019/05/28/new-us-airstrikes-obscure-a-dramatic-development-in-the-afghan-drugs-industry-the-proliferation-of-low-cost-methamphetamine/>.
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- 169 Jason Eligh, A shallow flood: The diffusion of heroin in eastern and southern Africa, GI-TOC, 2020.
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- 171 Malawi Police Service, Drug cases recorded from January 2017 to December 2019, unpublished report, Lilongwe, 2020.
- 172 Ibid.

- 173 Interview with senior Malawi Police Service officer who works on drug-related matters, June 2020.
- 174 The 'eye test' refers to an arresting officer identifying a substance by its appearance, among other contextual factors. As one might imagine, this technique can be challenging when, for example, a white powdery substance could be many things that are either licit or illicit, including for example meth, ephedrine, methcathinone, dextrose, milk powder or acetaminophen. Interview with Malawi Police Service member who works on drug-related matters, June 2020.
- 175 Unpublished research findings from ongoing GI-TOC research in Malawi.
- 176 'Club drugs' refers to a variety of substances that are sold within the network of nightclubs and bars, which includes also MDMA (i.e. Ecstasy) and ketamine. The overlap of drug use and sex work has a long history. For example, see Gajendra Medhi et al, Factors associated with history of drug use among female sex workers (FSW) in a high HIV prevalence state of India, *BMC Public Health*, 12, 2012, 273. 'Chemsex' (also called 'party and play') refers to a subsection of gay men's culture and involves the use of various combinations of drugs taken by men who have sex with men before or during sex, which extends its duration. It has been alleged that the practice of 'chemsex' in South Africa was an important contributor to the introduction of meth to a wider geographic base of users, accelerating its spread from the Western Cape to other urban areas. (Interview with harm reduction advocate working with men who have sex with men (MSM) populations in Cape Town and Kwa-Zulu Natal, July 2020). For discussion of meth and chemsex in South Africa see also: Johannes Hugo et al, Anova Health Institute's harm reduction initiatives for people who use drugs, *Sexual Health*, 15, 2018, 176–178.
- 177 'Body packing' refers to the technique of concealing illicit drugs inside one's body, either by consuming the drug contained in multiple pellets, often made from male condoms; or through the insertion of drug pellets either rectally or vaginally.
- 178 Alarmed by the rate at which Malawian citizens – mostly women – were being arrested and convicted for drug smuggling in West African countries, and those of Latin America and Asia, the Malawi Ministry of Foreign Affairs and International Cooperation warned its citizens against being enticed into acting as a drug courier. See Embassy of the Republic of Malawi in the United States, Increase in incidents of arrests abroad of Malawian nationals on drug trafficking offences, Ministry of Foreign Affairs and International Cooperation, Washington DC, 20 July 2018.
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- 180 Laurent Laniel, Drugs in southern Africa: business as usual, *International Social Science Journal*, 53, 3 (2001), 407–414, 411.
- 181 MPS reported seizing 50kg of ephedrine in 2017, nearly 9kg in 2018, and an insignificant amount in 2019. See Malawi Police Service, Drug cases recorded from January 2017 to December 2019, unpublished report, Lilongwe, 2020.
- 182 Given that many of Malawi's flights must transit in Johannesburg, it is likely that the ephedrine was part of a larger flow destined either for the South African market, where meth production continues in the Johannesburg area, or for onward transit from Johannesburg to Nigeria for use in clandestine meth production facilities there.
- 183 In many ways this hub designation may seem logical. It was a finding confirmed also in Jason Eligh, A shallow flood: the diffusion of heroin in eastern and southern Africa, GI-TOC, 2020, 72.
- 184 Simone Haysom, Peter Gastrow and Mark Shaw, The heroin coast: A political economy along the eastern African seaboard, GI-TOC, 2018; Simone Haysom, From the maskani to the mayor: The political economy of heroin markets in east and southern Africa, GI-TOC, 2020; Jason Eligh, A shallow flood: the diffusion of heroin in eastern and southern Africa, GI-TOC, 2020.
- 185 Neil Carrier and Gernot Klantschnig, *Africa and the War on Drugs*, Zed Books, London, 2012, 37–39.
- 186 Historically, this was expressed by Ted Leggett, *Rainbow Vice: The Drugs and Sex Industries in the New South Africa*, Zed Books, London, 2002. Allegations of current small-scale synthetic drug production in Mozambique continue to be expressed in interviews with low level distributors and users in South Africa, eSwatini and Malawi.

- 187 Researchers have found no evidence yet of large-scale meth production facilities operating in Mozambique. Instead, evidence was found indicating that volumes of meth were transiting through Mozambique. These flows originate in Afghanistan prior to landing in northern Mozambique and being transported overland to South Africa.
- 188 Unpublished research findings from ongoing GI-TOC research in Malawi.
- 189 Interview with a senior South African law enforcement official, June 2020.
- 190 US Department of Justice, Former leader of violent Kenyan organized crime family sentenced to 25 years in prison for narcotics, weapons and obstruction offences, US Attorney's Office, Southern District of New York, 16 August 2019, press release number 19-270.
- 191 Miramar, Mozambique: police dismantle 'drug factory' in Maputo province - watch, Club of Mozambique, 28 September 2020, <https://clubofmozambique.com/news/mozambique-police-dismantle-drug-factory-in-maputo-province-watch-172609/>.
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- 193 Simone Haysom, Peter Gastrow and Mark Shaw, The heroin coast: A political economy along the eastern African seaboard, GI-TOC, 2018.
- 194 Simon Baynham, The fourth horseman of the Apocalypse: Drug trafficking in Africa, *Africa Insight*, 1995, 25, 149–153.
- 195 Matthew Hart, How to steal a diamond, *The Atlantic*, March 1999, <https://www.theatlantic.com/magazine/archive/1999/03/how-to-steal-a-diamond/305488/>.
- 196 The INCB maintains a list of scheduled substances for which use and trade is controlled. Many of these chemical substances have both licit and illicit uses. For example, pseudoephedrine is a common additive to decongestant pharmaceutical medications, yet it can be used also in the synthesis of methamphetamine. Hydrochloric acid has a variety of common production uses, including in the production of batteries and steel. But it is used also as a reagent in the production of many illicit substances including cocaine, MDMA and methaqualone. Organizations that wish to purchase and import scheduled substances often need to apply through a national registration body. In many countries, however, this mechanism of precursor monitoring and reporting is corrupted, ineffective or absent. This leads to the regular diversion of these substances from their licit intention to an illicit production purpose. How to control the diversion of licit substances to the illicit market has been a topic of regular discussion within the INCB and among national drug control bodies.
- 197 LUA Correspondent, Namibia's Walvis Bay port terminal to handle 750k containers per annum, Logistics Update Africa, 6 August 2019, <https://www.logupdateafrica.com/namibias-walvis-bay-port-terminal-to-handle-750k-containers-per-annum-shipping>.
- 198 This support can range from their participation in the facilitation of 'rip on, rip off' schemes, where illicit goods either are placed inside a container ('rip on') prior to vessel loading and departure and without the shipper's knowledge, or removed from the container ('rip off') after container disembarkation but before the container is cleared.
- 199 In the US, it is estimated that only 5 per cent of all containers at maritime ports are scanned currently. The same applies at the Port of Antwerp, the second largest European port by volume. While scanning statistics were not provided to researchers, it would be surprising if the Walvis Bay port could scan or inspect a similar percentage of its own container volumes.
- 200 John Bensalhia, Scan and deliver, Port Strategy: Insight for port executives, 6 May 2020, <https://www.portstrategy.com/news101/port-operations/cargo-handling/scan-and-deliver>.

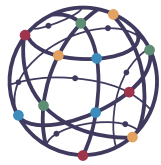
- 201 Peter Thomson, Scanning of containers at Australian ports, The fifth conference on nuclear science and engineering in Australia, Conference handbook, Canberra, Australia, 5–6 November 2003, 82–85. Unfortunately, the technical specification for the lone container scanning system in place at Walvis Bay port was not available at the time of writing.
- 202 This is the descriptor employed by a senior law enforcement official when recounting this story, May 2020.
- 203 Of note is the reporting of two prior large-scale isosafrole (2 100 litres in 2014) and safrole (2 100 litres in 2016) seizures in relation to Walvis Bay port. See INCB, Seizures of substances in Tables I and II of the 1988 Convention as reported to the International Narcotics Control Board during the last years, <https://www.incb.org/incb/en/precursors/tables.html>.
- 204 Interview with Tanzanian heroin and meth importer, October 2020. At the time of writing, researchers were continuing to investigate the elements of this claim through additional sources. While this informant's claims have yet to be substantiated, there exists a growing collection of anecdotal accounts in this region alleging some volume of Afghan meth transiting to EU-based marketplaces.
- 205 Principally, but not exclusively, Nigeria.
- 206 EMCDDA, Emerging evidence of Afghanistan's role as a producer and supplier of ephedrine and methamphetamine, EU4MD special report, EMCDDA, Luxembourg, November 2020.
- 207 United Nations, Synthetic drugs in East and Southeast Asia: latest developments and challenges, UNODC, Vienna, May 2020, p15.
- 208 *Yaba* literally means 'crazy pill', and it is the most common form of meth consumed in South East Asia.
- 209 'Quasi-legality is a term and context borrowed from the work of Neil Carrier and Gernot Klantschnig, Quasi-legality: Khat, cannabis and Africa's drug laws, *Third World Quarterly*, 39, 2018, 350–365.
- 210 Information is based on discussion from interviews with a senior police official from Namibia, May 2020, and a senior police official from Malawi, June 2020.
- 211 A common misconception is that while the active alkaloids of the khat plant are scheduled and therefore controlled under the international drug Conventions, the plant material itself is not controlled by the Conventions. See Jason Eligh, The evolution of illicit drug markets and drug policy in Africa, ENACT Africa and GI-TOC, June 2019, Nairobi, 63, fn. 64.
- 212 For a discussion of challenges borne from the ambiguity of khat and cannabis, see Jason Eligh, The evolution of illicit drug markets and drug policy in Africa, ENACT Africa and GI-TOC, Nairobi, June 2019, 10–14.
- 213 This Busia example has been drawn from research that will be presented in a forthcoming GI-TOC publication examining regional illicit drug markets in eastern and southern Africa in more depth.
- 214 The assumption should not be made here that this allegation applies to all law enforcement individuals within a particular body. There are some exceptions. We would point to the report of the Mauritian Constitutional Commission of Inquiry on Drug Trafficking (July 2018) in which a principal finding was the corruption of the Anti-Drug and Smuggling Unit (ADSU) of the Mauritian Police Force. It was recommended (Recommendation 17B.2, p196) that the entire organisation be disbanded and replaced due to the depth of corruption within its membership. We recognize that while corrupt practices may not extend to all members of a force, in contrast to the Mauritian example, we would argue still that the silence of other members of the force about the behaviour of their colleagues does mean that they are enablers of this corruption and therefore must share some responsibility in its perpetuation.
- 215 Interview with independent security consultant, Pakistan, October 2020.
- 216 Lucia Bird and Julia Stanyard, The political economy of illicit drugs trafficking across the Western Indian Ocean States, GI-TOC, forthcoming.
- 217 Alastair Nelson, A triangle of vulnerability: Changing patterns of illicit trafficking off the Swahili coast, GI-TOC, June 2020.
- 218 Several of these countries mentioned here were not formally part of this research exercise but are part of an ongoing research effort that is examining these drug markets in more detail. Meth use is presumed also in Tanzania though not yet confirmed beyond a small cross-border exchange of meth on the Kenyan border near Arusha.
- 219 This assumes, of course, that vaccines will be distributed to poorer countries of the world, and not prioritized for developed nations. It is inevitable, however, that even if a vaccination does eventually

become available in poorer countries, this will be long after such campaigns have been exhausted in the developed centres of the Western world. This delay will add to instability and vulnerability in such communities, thereby increasing the risk of the evolution and expansion of illicit drug markets and other organized criminal flows in and through these population centres.

220 In follow-up interviews with intermediate-level meth distributors in South Africa, there was an allegation that meth flows to South Africa from Malaysia started in or about July 2020. Most meth in Malaysia originates from the mass production centres of eastern Myanmar. However, an Australian law enforcement source had indicated that a quantity of meth from Pakistan or Iran was believed to have transited Malaysia en route to Australia. At this time, the research cannot determine the likely origin of this alleged new meth flow, but the Malaysia connection is plausible.

221 One informant indicated the existence of a pill press in the Western Cape that is producing tablets that are a combination of meth and caffeine – a combination of substances that is otherwise known as *yaba* across Southeast Asia.

222 Jason Eligh, Crisis and opportunity: Impacts of the coronavirus pandemic on illicit drug markets, GI-TOC, May 2020.



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