Report of the National Institute of Statistics and Geography of Mexico (INEGI) and the United Nations Office on Drugs and Crime on an international road map to improve drug statistics

Note by the Secretariat

In accordance with Economic and Social Council decision 2016/220 and past practices, the Secretary-General has the honour to transmit the report on improving the quality and availability of drug statistics. It was prepared by the National Institute of Statistics and Geography of Mexico (INEGI) and the United Nations Office on Drugs and Crime, in consultation with the World Customs Organization, the Inter-American Drug Abuse Control Commission, the European Monitoring Centre for Drugs and Drug Addiction and the World Health Organization. The report contains a set of proposed actions to improve the availability and quality of drug statistics at the national, regional and international levels for consideration by the Statistical Commission.
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I. Introduction

1. The availability of high-quality data on drugs is key to understanding the drug situation at the national, regional and global levels and is a cornerstone of evidence-based policymaking and monitoring. The importance of global data collection is reflected in the three international drug control conventions,\(^1\) by which parties are required to annually submit drug-related data to the United Nations.

2. The need to improve and coordinate data collection, analysis and research on the drug problem has been emphasized in a number of resolutions and documents of the General Assembly, the Economic and Social Council and the Commission on Narcotic Drugs.\(^2\) In 2014, a report on improving the quality and availability of drug statistics was presented at the forty-fifth session of the Statistical Commission (E/CN.3/2014/19).

3. Most recently, the outcome document of the thirtieth special session of the General Assembly in April 2016, entitled “Our joint commitment to effectively addressing and countering the world drug problem” (resolution S-30/1, annex), further promoted the value of reliable, comparable, objective and quality statistics across all drug domains. And in November 2016, the Assembly reiterated the commitment to improve the availability and quality of statistical information (see A/C.3/71/L.10/Rev.1, para 79).

4. The present report sets out a proposal for an international road map to improve statistics on drugs (the road map) to respond comprehensively to the call made by Member States in several instances to enhance the statistical information on drugs through a series of integrated objectives and activities. The United Nations Office on Drugs and Crime (UNODC) will submit the same road map to the Commission on Narcotic Drugs, the United Nations policymaking body with the prime responsibility for drug control matters, for its consideration.

II. Background

5. The international drug control conventions set forth a system for the control of certain psychoactive substances, referred to in the present report as drugs.\(^3\) The world drug problem is typically characterized by two hallmarks: the illegal activities

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\(^3\) Hence the term “drugs” in the present document excludes alcohol and nicotine.
affecting the supply of drugs and the health aspects around drug use. Statistics on drugs traditionally refer to the two areas of supply and demand.

6. Whether a given substance qualifies under the designation “drug” or not is defined by the lists (“schedules”) accompanying the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol and the Convention on Psychotropic Substances of 1971. The lists have been amended over time, as laid out in the international drug control conventions. In addition, there is a wide range of other psychoactive substances that have emerged over time as substances that are consumed for their psychoactive effects. Such substances, referred to as “new psychoactive substances”, are also of interest because of the potential threat to public health; such substances may be subject to controls at the national level before they are considered for possible inclusion in the schedules of the international conventions.

A. Role of national statistical offices in drug statistics

7. The remit of national statistical offices is to produce information on relevant social and economic phenomena. National statistical offices are the repository in a country of the technical knowledge to undertake censuses and surveys and to coordinate administrative registers and they can play a leading role in compiling information from other sources. Drugs affect a wide range of social and economic aspects that can be measured statistically, such as consumption, prosecution, imprisonment, sentencing and health and financial issues, among others. National statistical offices could probably play a bigger role in the production of drugs statistics. Their contribution is crucial in:

   (a) Standardizing terminology and accountability practices in order to reach a common framework;

   (b) Gathering data from different institutions and government levels to create an integral statistical system;

   (c) Using their capacities to analyse statistical and geographical data;

   (d) Ensuring confidentiality and privacy principles that strengthen the trustworthiness of the system;

   (e) Disseminating statistical data to all stakeholders.

8. Although not all national statistical offices have experience in collecting drug-related statistics, their inherent characteristics render them very well placed — in coordination with all relevant data producers — to actively participate in the improvement of data on drugs on a regular basis, facilitating the collaboration at the regional and international levels and fostering the standardization and quality of data. Where national statistical offices have a clear value added is in the implementation of household surveys on drug use, since the offices can build on their infrastructure and methodological development in other ongoing large population surveys.
III. Recent developments in drugs statistics

9. The measurement of the world drug problem has evolved over time. The Commission on Narcotic Drugs, as the United Nations policymaking body with the prime responsibility for drug control matters, has led these developments. The adoption, by the Commission in 2009, of the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem (see E/2009/98-E/CN.7/2009/12, chap. I, sect. C) resulted in the revision of the main international reporting instrument on drugs, the annual reports questionnaire (ibid., resolution 52/12).

10. Within the United Nations system, UNODC, the leading entity for addressing and countering the world drug problem, is the focal point for the collection of data on drugs. Much of the information available on the global drug situation is submitted to UNODC through the annual reports questionnaire. UNODC also collects data through the ongoing national, regional and global programmes. The international drug control conventions also require that States parties report data on significant individual drug seizures. The available information on drugs is regularly analysed, at a global level, and consolidated in the annual UNODC World Drug Report. Aside from UNODC, the available pool of information related to the drug situation is fed by the work of several other international and regional organizations.

11. The World Health Organization (WHO) maintains a central repository, namely the Global Health Observatory, of health statistics generated by various WHO programmes. In the area of substance abuse, the Observatory includes the Global Information System on Resources for the Prevention and Treatment of Substance Use Disorders, which maps and monitors health system resources at the country level to respond to the health problems resulting from psychoactive substance use. This information system incorporates data on country-level information systems and data on the coverage of treatment interventions for substance use disorders at all levels. WHO carries out surveillance activities in the context of monitoring risk factors for non-communicable diseases and risk behaviours among youth that could serve as appropriate population-based surveillance platforms for monitoring psychoactive substance use in populations, including the WHO STEPwise Surveillance system (STEPS) and the Global school-based student health survey. Periodically, WHO produces estimates of disease burden attributable to alcohol and drug use, including the estimates of deaths attributable to drug use.

12. The Joint United Nations Programme on HIV/AIDS (UNAIDS) brings together 11 United Nations organizations and a secretariat to jointly work towards ending the AIDS epidemic by 2030 as part of the Sustainable Development Goals.

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4 Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol, art. 18, para. 1(c); Convention on Psychotropic Substances of 1971, art. 16, para. 3; United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, art. 20, para. 1(b).
5 See http://apps.who.int/gho/data/node.home.
6 In this context, the term “substance abuse” extends beyond drugs under international control, and includes alcohol and nicotine.
8 See www.who.int/chp/steps/en/.
The Programme serves as the leading advocate for global action against HIV/AIDS and has the responsibility for monitoring the global multisectoral response to the HIV epidemic. Data on the HIV epidemic and national HIV prevention, treatment and care responses for key populations at risk for HIV, including people who inject drugs and prisoners, are requested annually by UNAIDS. Information is compiled on population size estimates, the prevalence of HIV, HIV testing and selected prevention measures. National and, more recently, subnational data are collected through the global AIDS monitoring tool and subsequently disseminated by AIDSinfo online, the Key Populations Atlas and UNAIDS reports. In addition, the UNAIDS Reference Group on Estimates, Modelling and Projections supports the methodological development of models to improve population size, HIV incidence and HIV prevalence estimates for key populations, including people who inject drugs.

13. The World Customs Organization has set up a global network of 11 regional intelligence liaison offices for collecting, analysing and supplementing data, in addition to disseminating information on trends, modi operandi, routes and significant cases of fraud. The mechanism is supported by the Customs Enforcement Network, which is a global data and information-gathering, analysis and communication system for intelligence purposes. The Network maintains a limited-access database that contains 13 headings and products covering the main fields of customs enforcement activity, two of which are drugs and precursors. The regional intelligence liaison offices study and evaluate international seizures, verify the accuracy of data supplied by national contact points and issue alerts, among other things. The Network serves as a global information and intelligence tool, and the World Customs Organization periodically conducts global strategic and tactical analyses on the basis of information available in the Network.

14. The European Monitoring Centre for Drugs and Drug Addiction is tasked with the collection, analysis and dissemination of European data on drugs, covering the European Union member States and Norway and Turkey. In recent years, a greater focus has been given to the identification and dissemination of best practices and improving the quality and comparability of supply data. The Centre collects information on all aspects of the drug situation, responses and policies and laws. It has a holistic perspective and covers both demand and supply issues within its data collection and reporting. The Centre is also tasked, along with Europol, with the coordination of the European Union early warning system on new psychoactive substances. It works closely with the Reitox network of national focal points, who are the main data providers for the agency’s work. The Centre is also engaged in establishing standards for European Union countries when reporting on illicit drugs. It has achieved, together with the member States and in concert with Europol and European Commission-Eurostat, sizeable progress across a number of statistical areas such as drug seizures, purity and content, drug prices, drug production facilities, drug law offences and market size estimates.

15. The Inter-American Drug Abuse Control Commission at the Organization of American States (OAS) works in collaboration with member States in Latin America and the Caribbean to generate data on drug use, treatment and supply control indicators. The Commission’s data on drug use follows a common, epidemiology-based, research protocol ensuring that the data produced by these studies are comparable across countries. To ensure consistency between data
produced by the Commission and data gathered by UNODC, these two agencies share a close working relationship, jointly reviewing data from member States and providing mutual support in cross-national analyses.

16. The African Union recently initiated a two-year drug epidemiology project aimed at strengthening the capacity for research and data collection on the prevention and treatment of drug use in Africa, in support of the implementation of the African Union Plan of Action on Drug Control 2013-2017. The project seeks to increase evidence-based services for drug use problems in the member States of the African Union through the establishment of epidemiological networks and observatories to provide evidence for policy formulation and service delivery.

17. Data related to the illicit supply of substances under international control, notably seizures of precursor chemicals, are also collected from member States by the International Narcotics Control Board, which also manages global statistics on the licit production and consumption of drugs.

18. At the global level, important methodological challenges in drug statistics have been successfully addressed in recent years. For example, surveys on illicit crop monitoring are regularly conducted in countries affected by the large-scale cultivation of illegal coca and opium; a large body of knowledge and fairly sophisticated techniques for the estimation of areas under cultivation have been produced. Methodological developments have also emerged in the measurement of drug use. Drug use surveys have been consolidated in Europe and North America and innovative approaches have been developed, such as wastewater analysis and network scale-up methods for the estimation of drug use prevalence.

19. Advances have also been made in the area of international coordination and collaboration. UNODC and all the agencies mentioned above regularly communicate and collaborate. For example, WHO and UNODC have recently established a coordination group on epidemiological data on drugs, comprised of all the regional and international agencies mentioned above that are active in the field of drug epidemiology, with the objective of harmonizing the international efforts on drug epidemiology data. In addition, global datasets related to drug use, namely those measuring the number of people who inject drugs and morbidity (HIV and hepatitis C) among people who inject drugs, are compiled and reviewed jointly by UNODC, WHO, UNAIDS and the World Bank.

20. The establishment of early warning systems by UNODC as well as the European Monitoring Centre for Drugs and Drug Addiction for the timely exchange of information on emerging new psychoactive substances is another important advancement. The UNODC Early Warning Advisory on New Psychoactive Substances is a response to the emergence of such substances at the global level. The Early Warning Advisory has proven to be very effective in monitoring, identifying and reporting trends on new psychoactive substances as a basis for effective, evidence-based policy responses.

21. Describing the demand and supply of drugs requires a comprehensive and interlinked information system. Figure I below sets out the elements of such a system, considering topics that can describe the drug problem. The figure is not an exhaustive list, but rather aims to provide an overview of the possible elements.
Figure I
Elements of a national drug statistics system

**Demand-related topics**

**Use/consumption**
- Drug use prevalence
- Quantity consumed by people who use drugs
- Frequency of drug use
- Modalities of drug use
- Types of substances used

**Health consequences**
- Mortality related to drugs
- Morbidity associated to drug use
- Prevalence of drug use disorders
- Indirect health consequences of drug use and association with communicable diseases

**Response**
- Treatment and care for drug use disorders
- Prevention of drug use
- Prevention of adverse health consequences of drug use

**Supply/availability**
- Illicit cultivation
- Illicit production/manufacture
- Net availability within national borders, exports, imports
- Mode of trafficking (including internet)

**Accessibility/markets**
- Price
- Purity

**Supply/availability**
- Impact and implementation of alternative development programmes
- Eradication
- Seizures of illicit drugs/precursors

**Statistical sources**
- Drug use surveys (among general, school and high-risk populations)
- Size estimates of key populations produced by indirect and other estimation methods (e.g., people who inject drugs)
- Treatment records
- Registers of drug-related users, morbidity and mortality
- Records of law enforcement operations
- Reports of criminal justice process (arrests, prisons)
- Forensic laboratories
- Remote sensing surveys of areas under illicit crop cultivation
- Rural household surveys in illicit crop cultivation regions
- Early warning systems
- Estimation models based on multiple sources
- Wastewater analysis
- Health authorities records

**Drug law offences**
- Arrests, prosecutions, convictions, imprisonment on drug-related crime

**Topics related to socioeconomic impact of drugs**
- Illegal economy related to drug production and trafficking
- Illicit financial flows related to drugs
- Crime attributable to drug use
- Violence and corruption associated with illicit drug supply chain
- Risk factors for drug use
- Marginalization, stigma and discrimination of people who use drugs (by gender, age group)
- Risk factors for illicit drug cultivation and socioeconomic status of farmers
- Risk behaviours of people who use drugs (by gender, age group)
- Indirect impact of drug use on families/community of drug users
- Burden of drug use disorders measured in disability-adjusted life years
**B. Sustainable Development Goals and drugs**

22. The drug problem is interwoven with a vast array of social, economic and environmental issues and hence interacts in numerous ways with issues of development. The importance of this interaction was clearly recognized in the outcome document of the special session of the General Assembly on the world drug problem in which the Heads of States and Governments and Ministers noted that efforts to achieve the Sustainable Development Goals and to effectively address the world drug problem were complementary and mutually reinforcing (see resolution S-30/1, annex).

23. In the Sustainable Development Goals, the links to drugs are explicitly recognized in target 3.5, Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol. More broadly, since the drug problem has an important dimension of public health, drug use is closely linked to Goal 3, Ensure healthy lives and promote well-being for all at all ages.

24. The supply side of the drug problem is intimately connected with the issues of violence, organized crime and the lack of rule of law and governance, and thus with Sustainable Development Goal 16, Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

**IV. Challenges and gaps in data**

**A. At the national level**

**General issues**

25. The drug phenomenon is interwoven with a wide range of illicit activities; hence efforts to measure it are inevitably complicated by its clandestine nature. Drug indicators draw upon both administrative data as well as statistical surveys, such as land surveys on illicit crop monitoring and household surveys on drug use.

26. Administrative data are typically obtained from two main areas: the criminal justice system and health services. Administrative records are a direct measure of the State response to the drug problem. Data generated from these records are influenced by a number of factors, including policy priorities, the effectiveness of public intervention, public trust in national authorities and technical capacity and resources to produce statistics. These data do not measure the extent of the problem, but need to be triangulated and cross-referenced in order to inform trends. For example, the quantity of drugs seized generally captures only an unknown (and variable) proportion of the quantity of drugs trafficked. Similarly, registries of drug users, or administrative records of drug treatment episodes, generally reflect an unknown proportion of the population of drug users.

27. Many countries lack the capacity, as well as the financial resources, to produce good quality drug statistics. The paucity of official data, and the technical and specialized aspects of the production of epidemiological data, contribute to a
scenario where data on specific drug situations may only be provided by non-official sources, which have limitations on usability and sustainability.

28. As drug statistics need to be collated from multiple agencies, the lack of national coordination can seriously affect the quality of national data. Another current limitation is that substances being consumed or seized are frequently not verified by laboratory testing and the information reported often relies on perceptions of drug users and law enforcement officers. This issue is of particular concern for new psychoactive substances, which constitute a very fluid market, with substances rapidly entering and exiting the market.

Disaggregation and statistical refinements for drug-related data needs

29. The drug problem has an unequal impact on different population groups and in order to be fully informative, drug statistics need to be properly disaggregated. For example, data on people who use drugs should, ideally, be disaggregated by numerous variables, including age, gender, modality of use (smoking, snorting, inhaling, injecting), settings (household, prison, street), income, socioeconomic status, education level, migration status (refugee, migrant, victim of trafficking), and health variables such as HIV status and hepatitis status.

30. Some of these disaggregations can be considered in drug use surveys, but some subpopulations of drug users are hard to reach in surveys and exhibit special characteristics and special needs, so that dedicated studies are needed; this includes female drug users, people who inject drugs and HIV-positive people who use drugs, drug users in prison, refugees, sex-workers and men who have sex with men.

Challenges in measuring drug demand

31. The prevalence of drug use among the general population can be measured through drug use surveys, which have to overcome a number of challenges. Underreporting is a serious concern, since drug users can be reluctant to disclose their drug use habits, and although there are standard methodologies to measure drug use through households surveys, these can provide inaccurate results in settings where drug use is highly stigmatized, particularly among women. Moreover, they are not able to capture drug use outside the household among subpopulations that may be more affected, as, for example, in prison settings and among sex workers. Furthermore, the lack of uniformly applied standards poses issues of comparability among countries.

32. There are also challenges in distinguishing between the direct and indirect impact of drug use on the health of people who use drugs, and measuring them accordingly. For example, while death resulting from a drug overdose can clearly and directly be ascribed to drug use, it is much more challenging to determine, in the broader picture of an HIV epidemic, the extent to which HIV transmission, or AIDS-related mortality, can be attributed to injecting drug use. The international classification of diseases (ICD-10) provides a global methodological framework but

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its application is difficult and, as a result, drug-related deaths are often underestimated.\textsuperscript{10, 11}

33. The quantities consumed by each drug user is another important aspect of drug analysis, which requires better data to assess the size of drug markets. Generating this information is complicated by numerous, highly variable factors, such as individual tolerance, the average quantity per dose, the frequency of use, the purity of drugs purchased by the consumer and the mode of administration.

34. The non-medical use of prescription drugs, notably prescription opioids, introduces an additional layer of complexity in measuring and analysing drug use, as there may be an interplay between the consumption of drugs sourced from purely illicit channels and the non-medical consumption of products intended for medical use.

35. The treatment of drug use disorders is an important element of the response to the drug problem,\textsuperscript{12} but a common concept of treatment itself is lacking and related national information systems are generally weak, especially in developing countries. This affects the production of data for the indicator identified to globally monitor Sustainable Development Goal target 3.5, indicator 3.5.1, Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and after care services) for substance use disorders. Adequate reporting for this indicator requires not only estimates of people who were provided with treatment interventions but also estimates of the number of people in need of treatment, a concept that still lacks a standard definition.

\textbf{Challenges in measuring the supply of drugs}

36. Currently, drug supply is extremely varied and evolving fast. The transnational dimension of drugs trafficking is pivotal and a good understanding of drug supply can be achieved only by collating national information at the regional and global levels (see sect. IV. B below).

37. Efforts to estimate drug production need to contend with the clandestine nature of this activity. Fairly well-developed methodologies exist to monitor illicit crop cultivation through surveys relying extensively on remote sensing imagery, in combination with overflights and field visits. But the conversion of cultivated areas to quantities of drugs produced is challenging owing to complicating factors, such as the dynamic nature of land use and yield variation.

38. In the case of cannabis cultivation, which has increasingly come to occur indoors, techniques based on imagery and overflights/field visits are clearly insufficient. Some Governments have adopted techniques to detect indoor cultivation, but these do not yet have a global outreach.


\textsuperscript{11} At the international level, WHO has a methodology of estimating drug-attributable fractions for different health conditions included in the global estimates of mortality and morbidity, but such estimates are produced periodically (every 3-5 years).

\textsuperscript{12} A description of effective interventions for the prevention of substance use can be found in “UNODC-WHO International Standards for the Treatment of Drug Use Disorders — draft for field testing” (see E/CN.7/2016/CRP.4).
39. Quantifying the manufacture of synthetic drugs is even harder than for plant-based drugs. There is no well-established methodology for estimating the manufacture of synthetic drugs, since this is widely dispersed and is often confined in small laboratories which, for some drugs, are relatively easy to establish and hard to detect through systematic data collection. Seizures of chemical precursors used in the synthesis of drugs can provide insights into the quantities and locations of manufacture, but the proliferation of alternative methods of synthesis and the employment of alternative chemicals (not under international control) render the quantitative interpretation of such indicators highly challenging.

40. Drug seizures, prices and purities are the main indicators that can help to explain if the availability of drugs in a given market is expanding or shrinking. Compiling data on national seizures requires strong coordination across national agencies, such as customs and police forces, and across subnational jurisdictions.

41. As in legal markets, drug price is one of the most valuable indicators of its availability — especially in the presence of an inelastic demand — but there are a number of challenges in obtaining accurate and internationally comparable data. The difficulties are in collecting data on illegal and untransparent transactions and dealing with drug products whose purity cannot be easily accounted for. Many national forensic laboratories still lack the capacity to routinely report drug purity.

42. Aside from substances under international control — referred to as “drugs” — there are numerous new psychoactive substances that are not under international control and that have recently emerged as a threat to public health. Early warning systems monitor trends in the composition, production, distribution and patterns of use of these psychoactive substances and assess whether new developments and events could pose risks to the health and safety of individuals and society. Such systems are still not well established at the country level, however.

43. Alternative development is one form of drug supply reduction that aims to prevent and eliminate the illicit cultivation of crops through specifically designed rural development measures, recognizing the particular sociocultural needs and characteristics of the target communities and groups. The implementation of alternative development interventions and their monitoring require data on the risk factors related to illicit crop cultivation, including aspects of socioeconomic well-being, environment, rule of law and governance. However, rural communities affected by illicit drug cultivation often lack systematic data collection that fits their needs. This is an area that needs a consolidated framework, including standardized indicators and a conceptual and analytical framework for their interpretation.

**Challenges in measuring the socioeconomic impact of the drug problem**

44. The impact of the drug phenomenon on society and the individual extends to a broad spectrum of socioeconomic and development issues that go beyond the health consequences of drug use. These issues may include the loss of productivity and employment and consequences for individuals indirectly exposed to drug use, such as the spouses and family members of drug users. The availability of statistics linking socioeconomic status with drug use is rare. National statistics on socioeconomic status rarely consider drug use status, while socioeconomic aspects such as employment status and income levels are sometimes neglected in drug use surveys. Overall, these aspects are not systematically monitored and there is a need
for more systematic data linking socioeconomic status and drug use, also considering the indirect impact on non-drug users, such as the monitoring of drug driving.

45. Although there is a well-recognized connection between the drug phenomenon and crime, there is a lack of recognized standards in the measurement of drug-related crime beyond drug law offences, that is, in attributing (the correct proportion of) crime, including acquisitive crime, corruption and extortion, money-laundering and violent crime, to drug-related causes.  

46. Understanding the drug problem also requires knowledge on its economic impact in terms of the illegal economy generated by the production and trafficking of drugs (and associated money-laundering and illicit financial flows) as well as the costs borne by society as a result of the drug problem.

47. Estimating drug-related illicit financial flows contributes to assessing the consequences of the drug problem and to tackling it. But apart from anecdotal evidence and some initial academic research, a good understanding of the scale and patterns of illicit financial flows is still lacking and the methodology for measuring illicit financial flows is currently at its very early stages of development.

B. At the international and regional levels

48. The drug phenomenon has a transnational and interconnected nature, and can be understood in its totality only when national information is compiled and analysed at the regional and global levels. For example, drugs illicitly transiting a given country can only be understood using information on the production and consumption of drugs in other countries. Drug-generated profits flowing illicitly into a country may be calculated only by analysing demand in other destination countries.

49. The lack of international comparability and the paucity of data make the calculation of regional and international aggregates highly challenging both for supply and demand indicators. On the demand side, for example, the primary indicator of drug use, namely annual prevalence, presents challenges not only because of the lack of availability of data, but also because of the heterogeneity of the methods used to generate such data, such as household surveys and indirect estimates. On the supply side, for example, the “wholesale price” of a given drug may refer to transactions of a vastly different scale in different countries.

50. There are serious shortcomings in the availability of data in Africa, Asia and Oceania. The number of countries reporting to UNODC from Africa has declined over the past decade, while the proportion of reporting countries in Oceania remains very low (see figures II and III). Even among reporting countries, only a minority of them provides comprehensive data on supply and demand. Overall, the coverage of available data is better for indicators of drug supply, such as prices and seizures, as opposed to demand; this may be due in part to the considerably higher efforts

13 The ongoing work in implementing the International Classification of Crime for Statistical Purposes will contribute to improving the quality and comparability of data on drug law offences.
required to generate data on drug use. On average, over the period 2001-2014, the main indicator of drug use, namely annual prevalence of use among the general population, was reported by only 22 different countries each year (see figure IV). Given these shortcomings, some regional and global aggregates are calculated using statistical models that require strong assumptions on the missing data.

Figure II
Proportion of Member States submitting data to UNODC on drug supply or drug demand through the annual reports questionnaire, by region, 1980-2014 (two-year moving average)
Figure III
Member States reporting through the annual reports questionnaire on drug demand (Part 3) and drug supply (Part 4), 2014

ARQ responses
- Not received or blank: No responses, or only blank responses, to the parts on demand (Part 3) and supply (Part 4).
- Incomplete submission: Only one (non-blank) response to the parts on demand (Part 3) and supply (Part 4).
- Partially filled in: Both parts received, but at least one with significant gaps in reporting.
- Substantially filled in: Both parts substantially filled in.

Abbreviation: ARQ, annual reports questionnaire.
Figure IV

Availability of drug data reported through the annual reports questionnaire, by selected indicators, 2001-2014

Abbreviation: ARQ, annual reports questionnaire.

Note: A country is counted as having reported relevant data if it provided data specific to at least one of the drug groups: opioids, cocaine-type, amphetamine-type stimulants and cannabis. For drug use and drug treatment, the most recent data are frequently reported to UNODC even if they refer to years prior to the ongoing reporting cycle; in that case, the report is counted only once (against the year of the estimate).

* Records for price data for 2007 were incomplete.

51. There are regional reporting mechanisms tailored to the needs and capacity of regions; these mechanisms are not always synchronized and harmonized to the global data collection system, a situation that can potentially create double reporting. Sometimes there is no dedicated national coordinating entity for drug data that can regularly report to UNODC and this has hampered the quality and availability of data compiled at the global level.

52. While there are various well-established drug-related indicators as a global reference point, new issues have developed, such as the emergence of new psychoactive substances, which require new global statistical frameworks.

V. The three strategic areas of the road map

53. The following road map holistically describes the actions that can address the challenges mentioned above. Its aim is to serve as a reference “to do” list for the years to come to guide the efforts by international and regional organizations as well
as national bodies and statistical systems to improve the availability and quality of drug statistics. Actions are needed across several fronts to consolidate existing systems to monitor the ever-changing patterns of consumption and production and to measure the effectiveness of programmes to address all relevant aspects of the world drug problem, including, as appropriate, as related to the 2030 Agenda for Sustainable Development (see A/C.3/71/L.10/Rev.1, para. 78). The road map is divided into three priority areas for future work at the international and national levels: methodological developments to improve data quality at the national level; capacity-building; and international data collection and coordination (see figure V). The road map contains a total of 16 objectives, each of which will require follow-up by relevant international organizations, national experts in drug issues and national experts in statistics, with contributions from researchers and academics.

Figure V
Road map to improve drug statistics: the three strategic areas

A. Methodological developments to improve data quality at the national level

Improving the measurement of drug demand

54. Measuring drug demand touches upon several aspects, ranging from measuring the number of drug users to understanding their characteristics and consumption
patterns. Some international standards exist on drug epidemiology, but they do not cover all aspects, and some need to be updated to take stock of accumulated experience.

Objective 1: Methodological guidelines on conducting population surveys on drug use

55. While general guidelines and data-collection instruments on population-based surveys on drug use exist, they are based on direct questions that have proven ineffective in countries where drug use is highly stigmatized. New guidelines are needed to address issues that may result in the underreporting of drug use (such as the fear of stigma and other social and cultural constraints) and other methodological aspects. The guidelines may cover:

(a) Methods such as network scale-up to compensate for the low disclosure of drug use;
(b) A module or core questionnaire on drug use that can be added to existing surveys;
(d) Addressing the risk behaviours of drug users and risk factors for drug use;
(e) Non-medical use of prescription drugs;
(f) Modules to determine per capita consumption.

Objective 2: Methodological tools to support national and international comparative analysis on drug use

56. In the area of drug abuse epidemiology, there is a need to update existing methodological guidance on generating data using techniques beyond population-based surveys, including in particular the use of indirect methods to estimate the extent of problem drug use, methods to extrapolate drug use data from local studies to the national level and the generation and collection of data on drug-related mortality and morbidity.

Objective 3: International guidelines on producing drug use metrics based on wastewater analysis

57. In recent years, methodologies to analyse drugs metabolites in wastewater have greatly improved and estimates on trends and patterns of drug use can be produced in areas with sewerage systems in a relatively cost-effective way. Much research about this innovative approach has been conducted at the national and regional levels, and the European Monitoring Centre for Drugs and Drug Addiction.

15 For example, the Inter-American System of Uniform Drug Use Data (SIDUC) and the European Model Questionnaire.
16 See, for example, research conducted by the Sewage analysis CORE group — Europe (SCORE) and the European Monitoring Centre for Drugs and Drug Addiction at www.emcdda.europa.eu/activities/wastewater-analysis and http://score-cost.eu/monitoring2016/.
Addiction has produced the first manual on the subject. More work, however, needs to be done to have countries outside Europe embrace this technique and consolidate the experience of all different regions into international guidelines to further support the production of drug use metrics based on wastewater analysis that can complement those supplied by existing methods.

**Objective 4: Guidelines for the production of data on Sustainable Development Goal indicator 3.5.1**

58. Adequate reporting at the national, regional and international levels on Sustainable Development Goal indicator 3.5.1 (see para. 35) requires a detailed operational definition and relevant, agreed estimation methods of the target population (people who are in need of treatment) and of persons who have received different treatment interventions. Methodological guidelines for this indicator will be jointly developed by UNODC and WHO, the two custodian agencies for this indicator.

*Improving the measurement of drug supply*

**Objective 5: Guidelines for the production of data on drug availability**

59. Data on drug seizures and price are widely used to understand drug supply but comprehensive international guidelines for their production are still lacking. Guidelines will be developed on how to produce price and seizure data, including information on how to record the origin of drugs, counting rules for seizure cases, clandestine laboratories and drug law offences. The guidelines will also address the collection of microdata on individual drugs seizures.

**Objective 6: Guidelines to produce data on drug cultivation and production and factors contributing to illicit crop cultivation**

60. Over the past 15 years, UNODC — jointly with national partners — has implemented several programmes to monitor drug cultivation and production. Such experience needs to be consolidated into international guidelines on methods to estimate drug cultivation and production and on methodologies and surveys to understand the factors contributing to illicit crop cultivation (see resolution S-30/1, annex, para. 7).

**Objective 7: Methodology to monitor the impact of alternative development programmes**

61. Monitoring the impact of alternative development interventions remains a challenge and is key to more effective and evidence-based policies and programmes. Building on existing research, a methodology for measuring the impact of alternative development needs to be developed, which should integrate a number of statistical tools (remote sensing, geostatistical analysis of land use, data on socioeconomic dynamics, security and rule-of-law indicators) (ibid.).

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17 *EMCDDA Insights*, “Assessing illicit drugs in wastewater” (March 2016).
18 At the European level, guidelines on price data can be found in: European Monitoring Centre for Drugs and Drug Addiction Manuals, *Guidelines for collecting data on retail drug prices in Europe: issues and challenges* (Lisbon, 2010).
Improving the measurement of the socioeconomic impact of the drug problem

Objective 8: Guidelines to measure illicit financial flows deriving from the illicit drug trade

62. In recent years, important methodological work has been undertaken by academics, international organizations such as the European Monitoring Centre for Drugs and Drug Addiction and UNODC and also by a number of national statistical offices to estimate the magnitude of the illicit economy generated by drug markets in a given country or region. Very little, however, has been developed to estimate the flows of the illicit proceeds generated by drugs across countries. To measure such flows on a comparable and regular basis, countries would benefit from a standard approach defining the metrics able to estimate the value generated by drug trafficking and its trade across countries.

Development of new statistical measures

Objective 9: New statistical measures

63. In addition to recognizing the value of data to monitor the trends in the demand, production and trafficking of drugs, where there are established indicators, the General Assembly, at its thirtieth special session, emphasized the need to build data collection and statistics around the following topics: trends in the composition, production, prevalence and distribution of new psychoactive substances, the social and economic risk factors conducive to drug use, prevention and countering of drug-related crime and drug supply reduction measures, links between drug trafficking, corruption and other forms of organized crime (including trafficking in persons, trafficking in firearms, cybercrime and money-laundering and in some cases terrorism), money-laundering and illicit financial flows related to illicit drug cultivation, production, and manufacturing, drug-related criminal activities using the Internet and factors contributing to illicit crop cultivation. Moreover, in November 2016, the General Assembly invited Member States to consider the need to review the set of national drug policy metrics and tools for the collection and analysis of accurate, reliable, comprehensive and comparable data to measure the effectiveness of programmes to address all relevant aspects of the world drug problem, including, as appropriate, as related to the 2030 Agenda for Sustainable Development (see A/C.3/71/L.10/Rev.1, para. 78). Accordingly, new statistical measures will have to be developed to ensure that all these elements are addressed well.

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21 See, for example, UNODC, “Drug money: the illicit proceeds of opiates trafficked on the Balkan route”, 2015.
22 See the annex to the present report for the list of paragraphs in the outcome document mentioning data collection in areas not currently covered by the annual reports questionnaire.
B. Capacity-building

64. There are serious shortfalls in the capacity of many countries to generate and provide data on drug demand and supply and hence there is an urgent need for capacity-building. A series of tools for capacity-building can be developed, in the form of training materials and targeted interventions, which can support countries in the implementation of international practices and guidelines.

Objective 10: E-learning training modules

65. To improve the capacity of Member States to report drugs data at the international level, an integrated set of computer-based training modules should be developed, targeting officials of the national agencies and institutions responsible for the different areas of data production (supply, demand, socioeconomic impact). Among the various modules, one module would train responsible national officials on the compilation of responses to the annual reports questionnaire.

Objective 11: Targeted regional and national capacity-building training on producing, collecting and reporting drug data

66. Although issues of data quality and paucity affect drug indicators generally, there are marked discrepancies among regions with respect to the availability of data. Dedicated regional capacity-building trainings should be conducted, targeting specific regions, in collaboration with the relevant regional organizations and focused on generating, collecting, analysing and reporting data on indicators of drug use and supply. These workshops would primarily address national priority needs and also illustrate the international reporting mechanisms, such as the annual reports questionnaire.

Objective 12: Promotion of national coordination mechanisms on drug data, including national drug observatories

67. Through a partnership between UNODC, WHO and regional intergovernmental bodies such as (but not limited to) the European Monitoring Centre for Drugs and Drug Addiction, the Inter-American Drug Abuse Control Commission at OAS, the African Union and the Economic Community of West African States (ECOWAS), the establishment of national drug observatories or other national coordination mechanisms should be promoted. This will be supported by the development of international methodological guidelines to establish a national drug monitoring system responsible for organizing and supervising the data collection and analysis of indicators across drug demand and drug supply. These guidelines, building on already existing ones at the regional level, will provide a step-by-step guide on establishing national drug observatories, assessing the quality and comprehensiveness of existing data, building the capacity of relevant specific institutions to generate data, establishing the required reporting mechanisms and developing national drug situation reports.

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Objective 13: Promotion of early warning systems on new psychoactive substances at the national and regional levels

68. Early warning systems are a highly needed instrument to detect and monitor the spread of new psychoactive substances at various geographical levels. They link stakeholders from different sectors, such as health, law enforcement and forensics, and serve as a communication platform for the timely exchange of information related to the observed emergence of such substances. The systems serve as tools to identify health risks and other threats posed by drugs early on and support decision makers in taking appropriate measures to prepare for and/or counter emerging threats.

C. International data collection and coordination

69. Aside from the dedicated annual collection on drugs managed by UNODC, there are other international and regional data collection exercises, such as those conducted by WHO, the Inter-American Drug Abuse Control Commission at OAS and the European Monitoring Centre for Drugs and Drug Addiction. There is scope for increased involvement of national statistical systems in the generation and collection of statistics on drugs. Moreover, the international and regional bodies already involved in these activities should increase synergies and improve the coordination of their statistical work in the area of drugs, including with respect to reporting on the indicators and targets related to the Sustainable Development Goals.

Objective 14: Establishment of national focal points on the annual reports questionnaire

70. Experience in other areas has shown that the quality and availability of global data is greatly improved when Member States indicate a competent national authority, with technical expertise and actively involved in data collection and production, to act as a focal point for coordinating the collection of data at the national level and international reporting thereon. A global network of such focal points could be established, consisting of institutions designated by the respective Governments, in order to improve the consistency, quality and coverage of national data reported internationally and to facilitate technical consultations on drug statistics.

Objective 15: Strengthening of synergies in the international data collection and capacity-building on drugs

71. International data collection on drugs is undertaken by several agencies, and different reporting instruments at times create issues of consistency among the data available at the international level and an increased burden of response on Member States. The coordination working group recently established by WHO and UNODC on epidemiological data on drugs (comprised of intergovernmental organizations and agencies including the European Monitoring Centre for Drugs and Drug Addiction, the Inter-American Drug Abuse Control Commission at OAS, the Pompidou Group, UNAIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the African Union, and ECOWAS) will pursue its activities by
strengthening the coordination and harmonization of international efforts on drug epidemiology data through discussion and a review of methodological issues and by exploring ways to complement the existing statistical activities, including data collection and capacity-building activities. Options also need to be considered to improve international coordination on drug supply data by involving relevant organizations (as, for example, the World Customs Organization) and reinforcing mutual collaboration. The group will also work to increase the quality and transparency of producing regional and global estimates and, drawing from national experts and the academic community, will review the statistical models used to overcome data gaps in the production of global data on drug use by international organizations.

**Objective 16: Standardized methodologies for the estimation of transnational drug flows**

72. Knowledge of the channels along which drugs flow, and the corresponding quantities, is arguably the most important kind of information for the strategic prioritization of law enforcement intervention. Drug flows cannot, however, be measured directly; obtaining estimates thus requires the triangulation of a variety of sources and indicators and necessitates several methodological choices. Building on previous studies, there is a need to conduct more analyses and develop a more standardized methodology aiming to produce a systematic picture of the global flows of the various drug types.

**VI. Priority activities and workplan**

73. The table below outlines the next steps in the implementation of the road map and the associated timeline. A number of these activities will require coordination among several stakeholders and, in several cases, the proposed activities will be undertaken conditional to additional resources. While taking into account that such factors may pose additional challenges to its implementation, the road map is conceived as an integrated but realistic set of activities that can address the major challenges in the area of drug statistics over the next few years. Within this time frame, it is proposed that priority be given to the following objectives:

1. Methodological guidelines on conducting population surveys on drug use
2. International guidelines on producing drug use metrics based on wastewater analysis
3. Guidelines for the production of data on drug availability
4. Methodology to monitor the impact of alternative development programmes
5. New statistical measures
6. E-learning training modules
7. Establishment of national focal points on the annual reports questionnaire
15. Strengthening of synergies in the international data collection and capacity-building on drugs

Planning of activities of the road map

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<tr>
<th>Activity</th>
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<td>1. Methodological guidelines on conducting population surveys on drug use</td>
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<td>6. Guidelines to produce data on drug cultivation/production and factors contributing to illicit crop cultivation</td>
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<td>8. Guidelines to measure illicit financial flows deriving from the illicit drug trade</td>
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<td>2018-2019</td>
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<td>11. Targeted regional and national capacity-building training on producing, collecting and reporting drugs data</td>
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<td>12. Promotion of national coordination mechanisms on drugs data,</td>
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<td>including national drug observatories</td>
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<td>13. Promotion of early warning systems on NPS, at national and</td>
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**Abbreviations:** ARQ, annual reports questionnaire; CICAD, Inter-American Drug Abuse Control Commission; ECOWAS, Economic Community of West African States; EMCDDA, European Monitoring Centre for Drugs and Drug Addiction; NEDI, national experts on drug issues; NESS, national experts on statistics/surveys; SCORE, Sewage analysis CORe group — Europe; UNODC, United Nations Office on Drugs and Crime; WCO, World Customs Organization; WHO, World Health Organization.

### VII. Points for discussion

74. The Statistical Commission may wish to:

(a) Recommend the implementation of the proposed road map and indicate priority areas of work;

(b) Invite Member States to appoint national focal points on the annual reports questionnaire;

(c) Invite national statistical offices to consider their role and mandate in the production and dissemination of drugs statistics and to promote initiatives to foster the coordination of national institutions involved in drugs statistics;

(d) Welcome increased collaboration with the Commission on Narcotic Drugs, in particular in the context of the development and implementation of the road map, in order to improve the quality and availability of statistics on drugs;

(e) Invite international and regional organizations, including the African Union, the Inter-American Drug Abuse Control Commission at OAS, the European Monitoring Centre for Drugs and Drug Addiction, UNAIDS, UNODC, the World Customs Organization and WHO to strengthen their cooperation and collaboration.
in the field of drug statistics with a view to increasing the consistency of data and minimizing the reporting burden of Member States;

(f) Request that the United Nations Office on Drugs and Crime, in consultation with all other relevant international and regional organizations, report back to the Statistical Commission on the implementation of the road map;

(g) Invite the donor community to strengthen the global and regional efforts to implement the road map and support countries to improve national drug statistics.
Annex

Extracts from the outcome document of the thirtieth special session of the General Assembly, entitled “Our joint commitment to effectively addressing and countering the world drug problem” (resolution S-30/1, annex), promoting data collection in areas not covered by the annual reports questionnaire

Promote and improve the systematic collection of information and gathering of evidence as well as the sharing, at the national and international levels, of reliable and comparable data on drug use and epidemiology, including on social, economic and other risk factors, and promote, as appropriate, through the Commission on Narcotic Drugs and the World Health Assembly, the use of internationally recognized standards, such as the International Standards on Drug Use Prevention, and the exchange of best practices, to formulate effective drug use prevention strategies and programmes in cooperation with the United Nations Office on Drugs and Crime, the World Health Organization and other relevant United Nations entities; (para. 1 (h))

Promote data collection, research and the sharing of information, as well as the exchange of best practices on preventing and countering drug-related crime and on drug supply reduction measures and practices, in order to enhance the effectiveness of criminal justice responses, within the framework of applicable law; (para. 3 (c))

Respond to the serious challenges posed by the increasing links between drug trafficking, corruption and other forms of organized crime, including trafficking in persons, trafficking in firearms, cybercrime and money-laundering, and, in some cases, terrorism, including money-laundering in connection with the financing of terrorism, by using an integrated, multidisciplinary approach, such as through promoting and supporting reliable data collection, research and, as appropriate, intelligence- and analysis-sharing to ensure effective policymaking and interventions; (para. 3 (k))

Improve the availability and quality of statistical information and analysis of illicit drug cultivation, production and manufacturing, drug trafficking, money-laundering and illicit financial flows, including for appropriate reflection in reports of the United Nations Office on Drugs and Crime and the International Narcotics Control Board, in order to better measure and evaluate the impact of such crimes and to further enhance the effectiveness of criminal justice responses in that regard; (para. 3 (u))

Continue to identify and monitor trends in the composition, production, prevalence and distribution of new psychoactive substances, as well as patterns of use and adverse consequences, and assess the risks to health and safety of individuals and society as a whole and the potential uses of new psychoactive substances for medical and scientific purposes, and on that basis to develop and strengthen domestic and national legislative, regulatory, administrative and operational responses and practices by domestic and national legislative, law
Support research, data collection, analysis of evidence and sharing of information and strengthen law enforcement, criminal justice and legal responses, as well as international cooperation, to prevent and counter drug-related criminal activities using the Internet, consistent with relevant and applicable law; (para. 5 (p))