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**FRAMEWORK OF REFERENCE FOR SECURITY AND CRIMINAL JUSTICE STATISTICAL
SYSTEMS IN LATIN AMERICA AND THE CARIBBEAN**

SUMMARY



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INTRODUCTION

This document presents a summary of the main elements of the “Reference framework for systems of security and criminal justice statistics in Latin America and the Caribbean”, prepared by the working group formed pursuant to resolution 11(X) of the Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean (ECLAC). The working group was coordinated by Mexico (National Institute of Statistics and Geography (INEGI)).¹

The document provides an up-to-date reference framework, of the highest quality, for national systems of security and criminal justice statistics in the region. It proposes approaches for implementing statistical standards, the use and development of reliable, technical, accurate, independent, relevant, timely and comparable records, as well as processes of transparency, access to information and use of evidence to design, monitor and evaluate policies and programmes to prevent crime, and thus strengthen the rule of law and criminal justice.

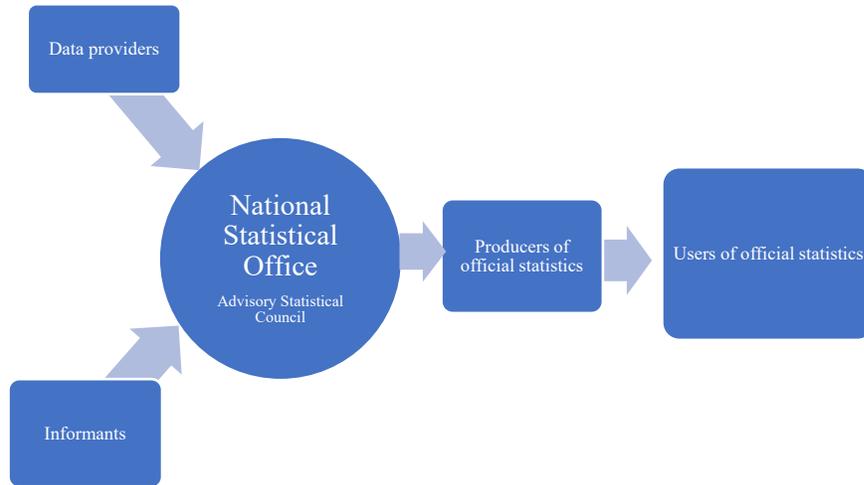
It is structured in seven sections, which discuss national statistical systems, statistics on security and justice, components of the criminal justice system, cross-cutting issues and an implementation roadmap. Its content should be understood as a set of recommendations and good practices, the application and implementation of which will be determined largely by the national and local context.

A. NATIONAL STATISTICAL SYSTEMS

National statistical systems (NSS) are the organized set of statistical agencies and units within a country that jointly compile, process and disseminate high-quality official statistics on behalf of the national government (ECLAC, 2019b). They integrate principles, functions, structures, processes and resources of the statistical function, specifying and complementing the work of different organizations through a conceptual, technological, operational and data infrastructure methodological framework (ECLAC, 2005). Their constituent elements are shown in diagram 1.

¹ The authors are grateful to the agencies of various countries in the region and to the United Nations entities that provided valuable assistance in the preparation of the document.

Diagram 1
National statistical system



Source: Prepared by the authors.

1. Components of national statistical systems

(a) National statistical offices

National statistical offices are responsible for coordinating and centralizing the national statistical system in each country. They provide information to strengthen the management and decision-making of governmental, non-governmental, private and civil society institutions and international cooperation and financing agencies. National statistical offices are legally mandated to collect information through surveys, censuses and other instruments; they revise and elaborate it, certify the quality of statistical products and publish national statistics on the population's activities in the economic, agricultural, commercial, industrial, financial, environmental, social, security and criminal justice domains.

(b) Information sources

Information sources are statistical tools that gather useful information to satisfy an institution's demand for knowledge or its need for information. They are classified into primary and secondary sources. Primary sources include instruments that capture information in a direct, new or original way, such as administrative records, surveys and censuses. Secondary sources contain synthesized and reorganized information from other sources, such as references, already processed third-party databases, catalogues or bibliographies.

2. Security and criminal justice statistics systems

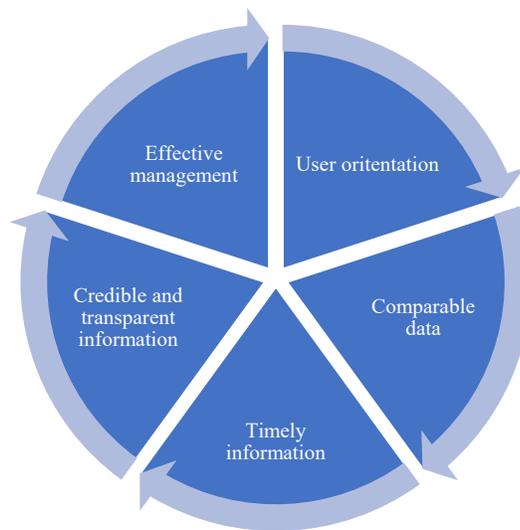
A security and criminal justice statistics system consists of institutions and agencies, mutually linked and coordinated through a homogeneous methodological framework, conceptual foundations and definitions, that produce, manage, analyse and disseminate information, based on censuses, administrative records or surveys, to support the processes of public policy monitoring, evaluation and decision-making. To function

properly, the system requires reliable, complete and unbiased statistics that gather valuable information in an organized and compiled manner. A system of security and criminal justice statistics has several objectives, including management, planning, research and analysis.

3. Principles of a security and criminal justice statistics system

Recognizing the complexity of the information they analyse, as well as the difficulty of coordinating different agencies and institutions, it is recommended that systems of security and criminal justice statistics be founded on certain basic principles, as shown in diagram 2.

Diagram 2
Principles of security and criminal justice statistics systems

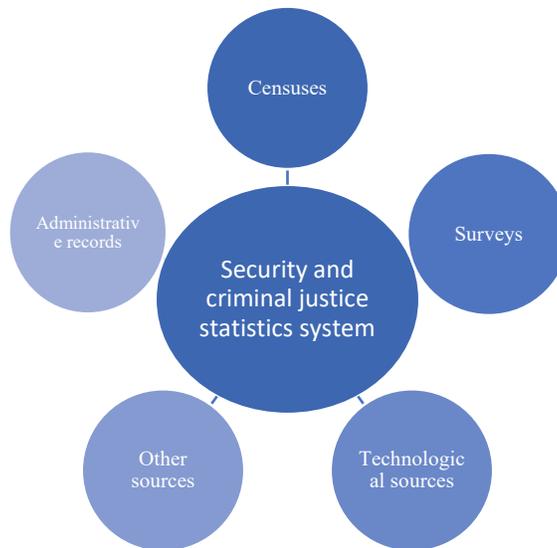


Source: Prepared by the authors, on the basis of United Nations, “Manual for the Development of a System of Criminal Justice Statistics”, Methods Studies, Series F, No. 89 (ST/ESA/STAT/SER.F/89), New York, 2004.

4. Sources of official security and criminal justice statistics

In order to collect, process and analyse crime in a rigorous and technical manner, systems of security and criminal justice statistics need to produce primary information, directly capturing the number of criminal and public security events occurring in their jurisdictions. With this information, they will be able to keep track of criminal acts and follow up on criminal conduct and offenders for strategic and operational planning purposes. The integration of official statistical sources is fundamental, as it will provide efficiency, timeliness and transparency, and will foster citizen confidence (see diagram 3).

Diagram 3
Sources of information for security and criminal justice statistics systems



Source: Prepared by the authors, on the basis of United Nations, “Manual for the Development of a System of Criminal Justice Statistics”, Methods Studies, Series F, No. 89 (ST/ESA/STAT/SER.F/89), New York, 2004.

B. SECURITY AND CRIMINAL JUSTICE STATISTICS IN NATIONAL STATISTICAL SYSTEMS

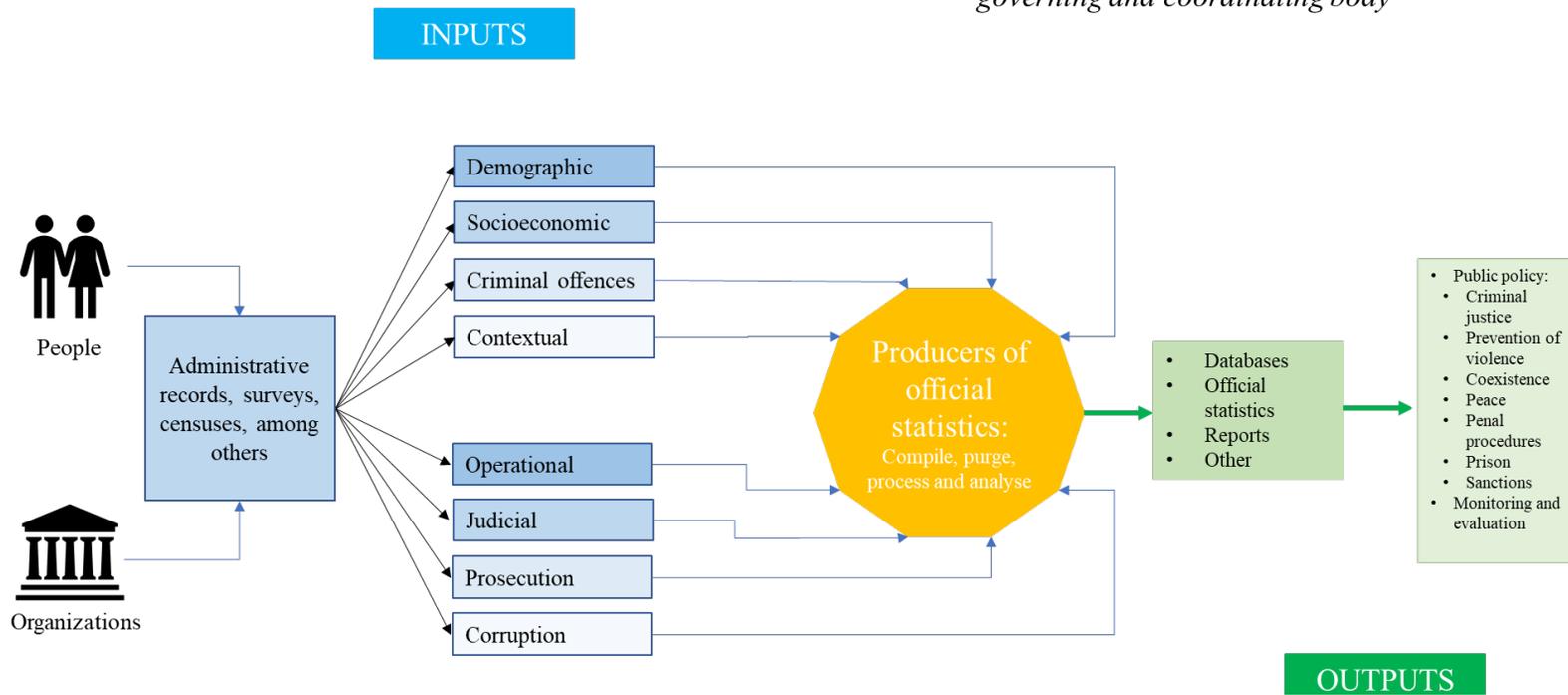
Systems of security and criminal justice statistics establish the framework for national coordination and integration between respondents and the providers, producers and users of information on security and criminal justice, generating guidelines and standards for the treatment, processing and dissemination of official statistics on the subject.

Diagram 4 illustrates the flow of information in systems of security and criminal justice statistics and some of their possible outputs. The national statistical office clearly acts as the lead agency and national coordinator of the institutions that produce official statistics, establishing guidelines and good practices for instruments such as administrative records, censuses, surveys and others that gather information on individuals and organizations.

Diagram 4

Flow of collection and production of information from systems of security and criminal justice statistics

*National Statistical Offices:
governing and coordinating body*



Source: Prepared by the authors.

1. Regulations

It is essential to establish a framework of laws to form the legal basis of the systems of security and criminal justice statistics, and specify the legal obligations of persons tasked with the development, production and dissemination of official statistics in this area, to ensure that it functions well in the long term. According to ECLAC (2005), regulations should support the generation of statistical information and the relationships between information production units, users and respondents. It should also define the rights and obligations of the agencies that comprise the national statistical system, the principles and procedures applied in the production and dissemination of official statistics, the organizational model of national statistical offices, the rights and obligations of respondents and access to the various data sources by the agencies producing official statistics (ECLAC, 2019a).

2. Stakeholders

The analysis requires interaction and collaboration between different institutions and actors that participate actively in the design and appropriation of statistical products, including instruments and mechanisms for the collection, processing and dissemination of information.

To achieve this, systems of security and criminal justice statistics (as a whole) and national statistical offices have a central role to play in coordinating actors and establishing methodologies, processes and quality standards to produce information in a timely, efficient and effective manner. The actors that need to be coordinated include those shown in diagram 5.

Diagram 5
Stakeholders to be coordinated in security and criminal justice statistics systems



Source: Prepared by the authors.

3. Coordination mechanisms

To ensure that systems of security and criminal justice statistics have processes for collecting, processing and disseminating information that is comparable with those of other countries (or at least related to them), coordination mechanisms are needed that promote the effective and efficient management of resources (United Nations, 2004). These include the following:

- **Technical coordination mechanisms:** these establish protocols or technical guidelines to regulate the various stages of the statistics production process. The most commonly used tools include data capture and processing software, questionnaires, administrative records, surveys, tabulations, cartographic outputs, interactive graphs, automatic reports and open-access data.

- **Administrative coordination mechanisms:** these ensure standardized, timely and relevant statistical products that are appropriate to the context of countries and institutions, as well as to the maturity stages of systems of security and criminal justice statistics. The key mechanisms include the adaptation of international practices, methodological work, data collection processes and staff training.
- **Financial coordination mechanisms:** these are useful for budgetary coordination and estimation; and they also enable the coordinators of the system of security and criminal justice statistics to administer it in an equitable manner that takes account of quality and response burden. In estimating the budget, it is essential to identify the different needs of individual agencies and differentiate them by territory, as they may differ in terms of the availability of resources and human, technical or technological equipment, and even in terms of security conditions.
- **National committee on security and criminal justice statistics:** this is an advisory body that can help guide statistical processes, make recommendations and generate inputs to improve the coordination and standardization of processes, seeking to meet national objectives on security and criminal justice statistics.
- **Decentralized mechanisms:** Recognizing that the more decentralized the security and criminal justice statistics system is, the greater the importance of coordination and flexibility. It is important to establish instruments that allow for greater interaction. These include interagency protocols for the collection of inputs, the standardization of nomenclatures, the processes of analysis and dissemination of the statistical system and the control of agency budgets. To implement these instruments, formal or informal arrangements, such as laws, decrees or manuals, can be used to specify the responsibilities of the members of the statistical system.

4. Purpose of security and criminal justice statistics

Information, data and evidence-based knowledge are necessary to detect and anticipate changes in criminal activity and to identify the respective causes and effects. They are also needed to establish efficient ways to invest public resources, adapt strategies and evaluate the impact of policies, plans and projects. However, in recent years the available information has been greatly underused, especially in developing countries. Producing and using information in security and justice issues is a complex challenge, mainly because criminal activity operates clandestinely, and also because information systems require technical equipment and high-quality technology that captures and processes information to generate data and knowledge.

(a) Planning

According to the United Nations Office on Drugs and Crime (UNODC, 2011), strategies, policies, programmes and measures that prevent and control crime must have a broad multidisciplinary knowledge base on crime and its multiple causes and effects. To overcome victimization problems, governments, law enforcement and justice agencies and other actors in systems of security and criminal justice statistics must formulate policies based on conclusive evidence. These have two objectives: first, to make efficient and optimal decisions that maximize results and resources and ensure long-term sustainability; and second, to generate knowledge and information that allows for the monitoring, evaluation and accountability of the results obtained.

(b) Management

Irrespective of the type of structure in which a country's statistical system is set,² it is essential to generate management mechanisms that provide useful and continuous information to institutions, promoting effective and efficient resource management. It is also essential to define roles and functions that avoid duplication of tasks and work overload, and to report on how the human and financial resources allocated to the tasks of public security and the delivery and administration of justice have been used.

(c) Monitoring and evaluation

For monitoring purposes, statistical information provides stakeholders with indicators that represent the development of activities, making it possible to ascertain the state of progress and possible effects, so that adjustments can be made to achieve the initial objectives. The indicators also make it possible to identify the levels of security in a territory, by comparing different time periods and places,³ in order to account for the effectiveness of the strategies, plans and operations proposed by the security and justice agencies. However, for evaluation and monitoring to be performed systematically and transparently, systems of security and criminal justice statistics need to be matured by improving the systems for capturing, processing, analysing and disseminating information, so as to produce robust and reliable data.

(d) Gender perspective in security and criminal justice statistics systems

Strengthening national capacity to collect crime statistics from a gender perspective has significant benefits. Crime and criminal justice statistics need to be gender sensitive, because there is conclusive evidence that men, women and persons of diverse gender identity, as well as different age groups and persons of diverse ethnic status, are affected differently. Identifying possible biases in criminal behaviour and in the functioning of the criminal justice system is a necessary condition for reversing structural gender inequalities.

The available evidence shows that gender-based violence affects women and girls disproportionately. Women and girls constitute half of the world's population; therefore, adapting crime prevention policies could protect nearly 4 billion people. More effort is required from governments to nurture a system that provides the information needed to overcome the challenges presented by each group according to their particular characteristics.

5. Users of the information

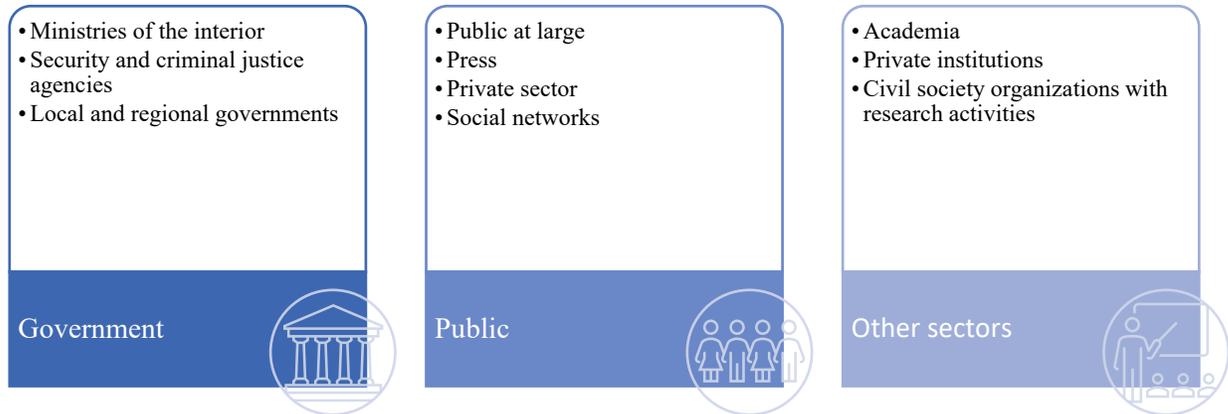
Given the strategic importance of their topics and contents, the data and information disseminated by systems of security and criminal justice statistics are needed by a variety of users within and outside the system, who have different purposes and interests. Therefore, information should be prepared for them with different levels of access and language, seeking to meet their needs and democratize information, while promoting the design and implementation of public policies, transparency and accountability.

² Centralized, decentralized or mixed.

³ For example, by using rates that make it possible to compare indicators by year, city or country.

Diagram 6 displays the users of security and criminal justice statistics, which are divided into three categories but interact systemically, reinforcing complementarity between the different sources of information.

Diagram 6
Users of security and criminal justice information



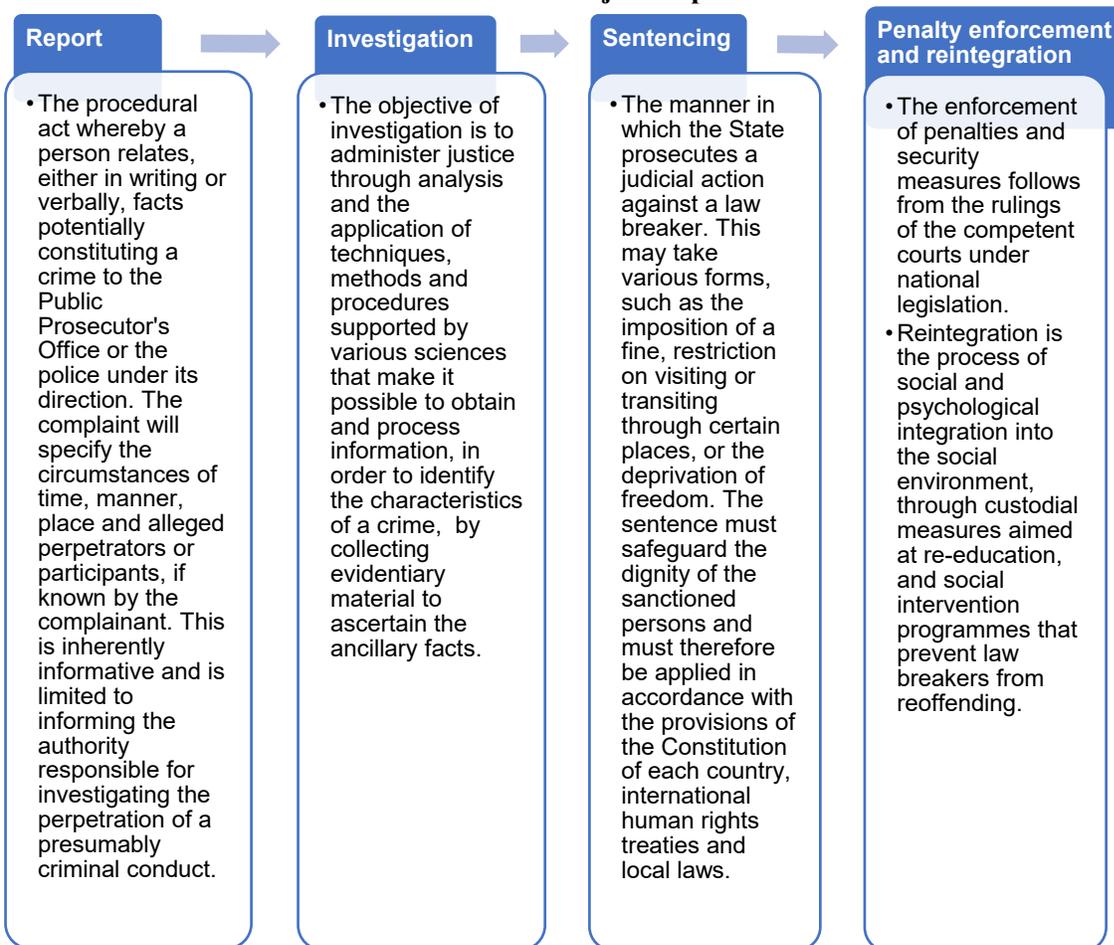
Source: United Nations, “Manual for the Development of a System of Criminal Justice Statistics”, Methods Studies, Series F, No. 89 (ST/ESA/STAT/SER.F/89), New York, 2004.

C. COMPONENTS OF THE CRIMINAL JUSTICE SYSTEM AND THEIR ROLE IN THE PRODUCTION OF STATISTICS

1. Stages of the criminal justice process

Recognizing the different stages of a criminal justice process makes it possible to identify the different types of data generated by the institutions of the criminal justice system. It also makes it possible to differentiate the actors involved, distinguishing their functions, contributions and needs in the production of statistics. Diagram 7 illustrates the cycle of the criminal justice process, which is divided into four stages, ranging from the filing of the complaint to the execution of sanctions and the reintegration of persons deprived of their freedom.

Diagram 7
The criminal justice process



Source: Prepared by the authors.

2. Systemic approach to the components of the criminal justice process

To the extent that the components of criminal justice constitute a system, the outputs of each agency are inputs to another, giving rise to a systemic approach that facilitates communication and interoperability between institutions. However, this is limited, since each institution has some degree of independence, small or large (United Nations, 2004). Table 1 provides a summary of security and criminal justice statistics from a systemic approach.

Table 1
Illustrative framework for a systemic approach to criminal justice statistics

Justice component	Type of statistical indicator			
	Input statistics	Process statistics	Product statistics	Resource statistics
Police	<ul style="list-style-type: none"> - Calls for police service - Criminal incidents reported to police - Suspects - Suspects detained 	<ul style="list-style-type: none"> - Incidents investigated - Officers deployed - Incidents founded 	<ul style="list-style-type: none"> - Crimes cleared by charge - Crimes cleared otherwise - Persons charged - Cases filed with the prosecutor 	<ul style="list-style-type: none"> - Staff complement - Authorized strength - Budget/expenditure
Prosecution	<ul style="list-style-type: none"> - Person-cases initiated^a - Charges initiated, differentiating as to whether or not there is recidivism^b 	<ul style="list-style-type: none"> - Court appearances, by type of court hearing 	<ul style="list-style-type: none"> - Person-cases disposed, by type of disposition - number of persons convicted 	<ul style="list-style-type: none"> - Number of staff - Authorized strength - Budget/expenditure
Courts	<ul style="list-style-type: none"> - Person-cases initiated - Charges initiated - Recidivism rate (persons reappearing) - Appeals initiated 	<ul style="list-style-type: none"> - Court appearances - Court hearings - Case elapse time (first appearance to disposition) 	<ul style="list-style-type: none"> - Person-cases disposed, by type of disposition - Sentences, by type of case - Length of sentence, amount of fine, etc. 	<ul style="list-style-type: none"> - Staff complement - Authorized strength - Budget/expenditure - Average cost per trial
Prisons	<ul style="list-style-type: none"> - Admissions - Parole and probation revocations - Recidivism rate (offenders readmitted) 	<ul style="list-style-type: none"> - Average inmate count (on-register and actual) - Infractions and violations 	<ul style="list-style-type: none"> - Releases by type 	<ul style="list-style-type: none"> - Staff complement - Authorized strength - Prison capacity - Budget/expenditure
Non-custodial	<ul style="list-style-type: none"> - Admissions - Recidivism rate (offenders readmitted) 	<ul style="list-style-type: none"> - Average of offender account - Infractions and violations 	<ul style="list-style-type: none"> - Releases by type 	<ul style="list-style-type: none"> - Staff complement - Authorized strength - Program capacity - Budget/expenditure

Source: United Nations, “Manual for the Development of a System of Criminal Justice Statistics”, Methods Studies, Series F, No. 89 (ST/ESA/STAT/SER.F/89), New York, 2004.

^a “Person-case” comprises all of the charges against one person.

^b “Recidivism” refers to the fact that a person is proven to have committed, or is convicted of, an offence similar to that committed previously.

A systemic approach is an indispensable element in preventing crime, delivering justice and strengthening the rule of law. Accordingly it is necessary to coordinate all relevant institutions and actors from different sectors that produce or use information, to ensure that it is generated in an optimal and coordinated manner and with the highest quality standards.

3. Components of the criminal justice process

(a) Public security component

This component consists of the different institutions that make up the public security system, which seek to preserve freedom, order and peace, safeguard people's rights and integrity, prevent the committing of crimes and develop public security policies. They include the police force, national public security academies, ministries of defence and public security secretariats.

Statistical information plays a fundamental role for this type of institution, as it provides inputs for strategic, tactical and operational planning, aimed at reducing victimization and improving security indicators. It also facilitates the monitoring and evaluation of plans, policies and programs, making it possible to identify their progress, effects and results.

(b) Prosecution component]

Prosecution is understood as the activity undertaken by the State to ensure application of the law and respect for citizens' rights through the investigation of crimes and the conduct of criminal proceedings (Government of the State of Quintana Roo, 2017). Given that access to justice is a basic principle of the rule of law, the delivery of justice should be impartial and non-discriminatory, based on unambiguous principles, procedures and documents that ensure that citizens and officials understand the law.⁴ This component generally includes the Public Prosecutor's Office, the Public Ombudsperson's Office and private defence attorneys.

(c) Administration of justice component

The court component may range from local courts with limited jurisdiction to trial courts, appellate courts and courts with specialized jurisdictions, such as tax courts and juvenile courts. It is the courts that determine the sentences or penalties for criminal conduct investigated by law enforcement agencies.

(d) Prison component

According to United Nations (2004), the prison system is considered the final component of the criminal justice process, where persons found guilty of criminal conduct serve their sentences. It generally consists of the following:

- Pre-trial remand facilities
- Prisons for inmates who have been sentenced
- Remand centres for minors
- Maximum security prisons
- Non-custodial mechanisms for alternative sentencing

⁴ Information from Counsel General of the Nation (2021), Public Prosecution Service (2016) and Government of Mexico (2017).

Information from the prison system is important because it can provide data and records that are useful both for public policy decision-making and for improving prison operations, resources, services and outcomes (Russo and others, 2020). However, most systems do not view prisons as information processing centres; as a result the potential they can offer on justice, crime and security issues is wasted.

(e) Other relevant stakeholders

In addition to the agencies of security and justice, other actors participate in the criminal justice process both formally and informally, providing or complementing information, analysing it or disseminating it to the community. These institutions interact periodically and tangentially, providing data from sectors such as the following:

- Health: traffic accidents, injuries, domestic violence, poisoning and assaults
- Legal or forensic medicine: violent deaths or deaths from external causes, such as suicides, traffic accidents or accidental death
- Security: citizen security observatories, homicides, thefts, threats, antisocial acts and victimization in general
- Financial system: financial institutions, insurance companies, and tax and customs authorities
- Armed conflict: victims, human rights, resolution or aspects of the armed conflict.

4. Challenges for systems of security and criminal justice statistics

(a) Use of technology and artificial intelligence to produce on the criminal justice process

One of the most important inputs enabling different institutions and actors to produce information is technology. According to the Institute for Comparative Studies in Criminal and Social Sciences and the Justice Studies Center of the Americas (INECIP/JSCA, 2012), as a result of a set of factors that go beyond the purely judicial domain, the use of technological tools and artificial intelligence has increased enormously in the last decade in Latin American countries, both in the private sector and in public institutions. This is due to the important role played by technologies in the processes of making the collection, production and analysis of information more efficient, and in simplifying processes, reducing costs, achieving greater proximity to citizens and increasing dissemination.

The guidelines for designing and implementing a sufficiently interpretable artificial intelligence system, include the following:

- Consider the context, potential impact, and need for the specific domain when determining project interpretability requirements.
- Apply standard interpreting techniques where possible.
- Consider transparency as foundational; if it is decided to omit this, the corresponding impacts and risks must be taken into account; and supplementary interpretation tools must be provided to guarantee an appropriate level of semantic explanation.
- Consider interpretability in terms of human comprehensibility.

(b) New criminal conducts: cybercrime

It is also crucial to have statistical systems in place to monitor the occurrence of emerging phenomena such as cybercrime, mindful that the range of crimes that can be committed using technology and the Internet is ever-changing, both in terms of technological change and in terms of social interaction with new technologies. However, many governments are not yet ready to collect information on this phenomenon systematically, nor to disseminate consistent metrics on the magnitude and cost of cybercrime.

There are numerous measurement challenges to be considered when formulating a system to help generate reliable and timely data to understand and combat this phenomenon. The most important include the following:

- Lack of a cybersecurity culture and awareness, at the individual, business and organizational levels. This results in a low rate of reporting by victims.
- In several countries, the lack of legislation defining cybercrime means that cybercrime is not recorded in any statistics and victims cannot access justice.
- Even in countries where legislation exists, security and investigative personnel are not trained or qualified to deal with cybercrime. Furthermore, the changing nature of the crime outpaces legislative progress in the area, again resulting in under-reporting.
- Perpetrators may be located outside the geographic-political jurisdiction of the competent authorities, which poses a challenge when considering whether or not to count an incident in national registries and their investigation.

Lastly, the transnational nature of cybercrime requires statistical information on this phenomenon to be exchanged across borders.

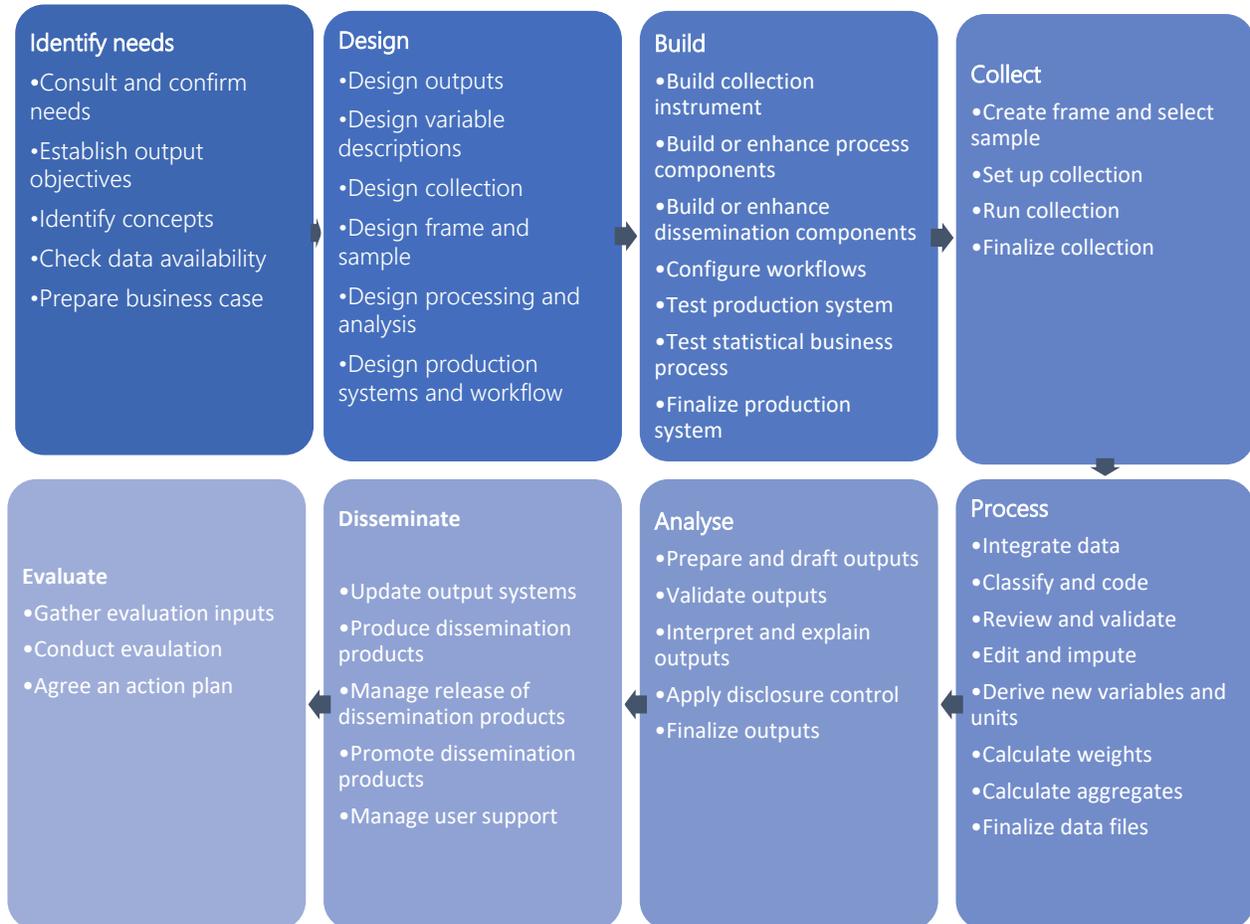
D. CROSSCUTTING METHODOLOGICAL AND TECHNICAL ISSUES

1. Statistical production

Statistical production can be understood as consisting of eight phases, which are not necessarily linear or have a fixed structure, but may even run simultaneously (see diagram 8).⁵

⁵ The information presented synthesizes different stages of production in different countries of the region. However, the main stages of development depend on each country's official guidelines, since the agencies responsible for the production of statistical indicators already have regulations that reveal slight variations in their development processes, although they follow a similar macrostructure.

Diagram 8
Generic model of statistical processes



Source: Economic Commission for Europe (UNECE), Generic Model of Statistical Institutional Processes (MGPIE) v 5.0 [online] <https://statswiki.unece.org/display/GSBPM/GSBPM+v5.0>.

2. Standardization of information

(a) International Classification of Crime for Statistical Purposes

The standardization of concepts, definitions, classifications and methodologies is essential for statistical harmonization, standardization, comparability and uniformity, in order to ensure quality, consistency and efficiency,⁶ without altering the legal definition of individual criminal offences. To this end, several countries in the region have started to adopt the International Classification of Crime for Statistical Purposes. This tool provides a common conceptual framework for systematically developing and

⁶ These issues are the subject of principle 9 of the United Nations Fundamental Principles of Official Statistics: “The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels”.

comparing statistical information from different criminal justice institutions and jurisdictions, thereby making it feasible to compare information from different data producers at the national level.

(b) Other classifications

The use of other classifications, such as the International Classification of Diseases (WHO, 2021) and also conventions, protocols and covenants, can complement statistics on security and criminal justice, allowing the identification of other criminal conducts and the possible effects of crime in different sectors such as the economy, the labour market, education, health, mobility, the environment and human rights. To this end, and in order to safeguard the quality, transparency and credibility of the information, statistical production standards must be followed and the same measurement scale and time frame must be used.⁷

(c) Counting rules

Given that different types of crime require specific counting rules, to ensure that the full picture of crime incidence is not lost when analysing aggregate data, it is advisable to use counting techniques that quantify events precisely. For example, crimes against the State or against public order that do not have a specific victim are often not routinely recorded as crimes. To avoid this, it is advisable to include auditing or data quality assessment processes, command and control systems, support from specialized authorities and linkage to computer systems (Home Office of the United Kingdom, 2020).

(d) Georeferencing

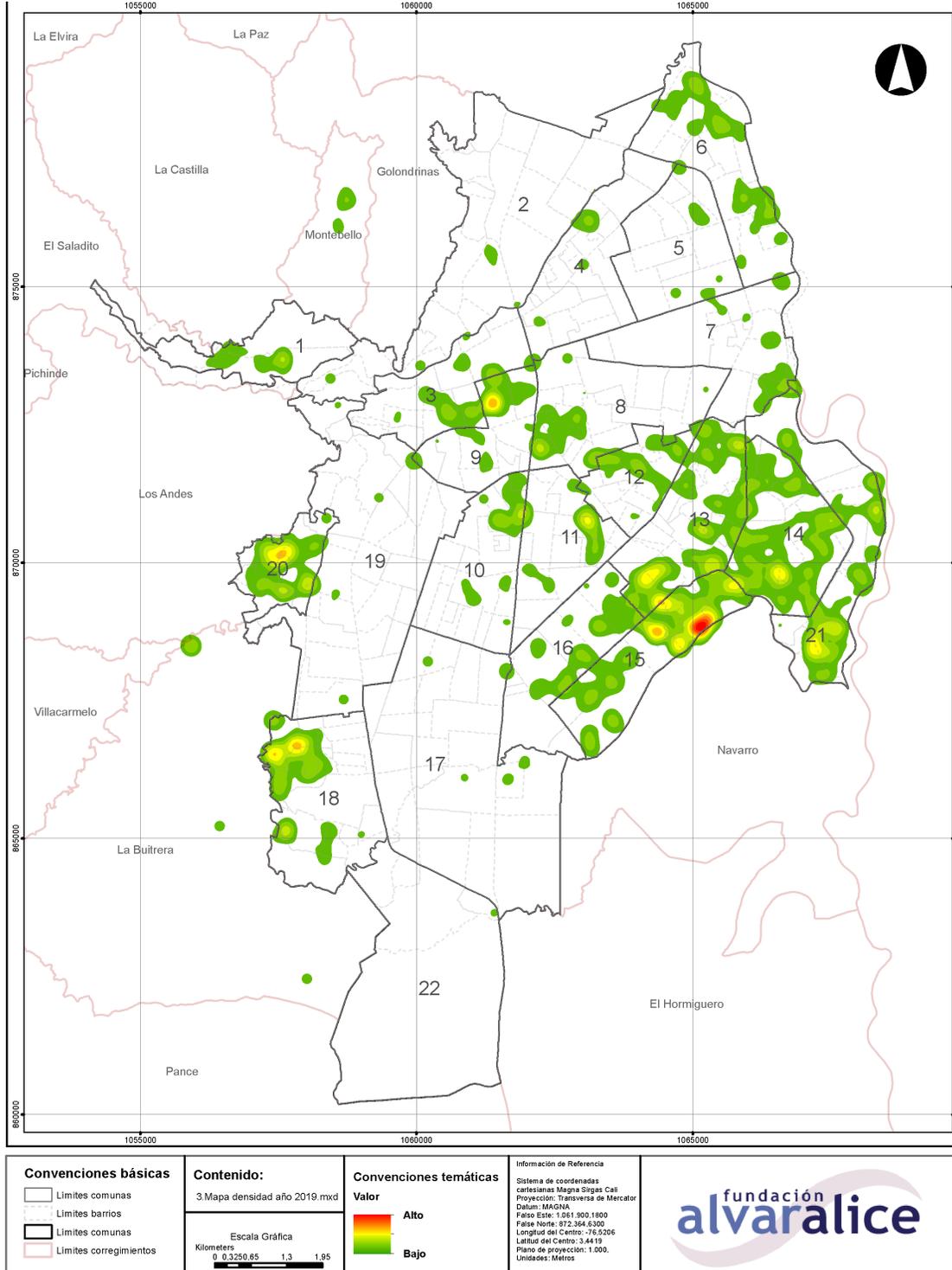
Georeferencing is key to performing in-depth and detailed analyses. According to Weisburd and McEwen (2015), it makes it possible to show the distribution of variables related to crime in space, to analyse spatial agglomerations and autocorrelations, their dispersion and the social conditions in which they are immersed. Map 1 presents cartography that is recommended for crime analysis, which takes behavioural,⁸ cognitive or perceptual⁹ processes as a starting point.

⁷ At the national, state or municipal level, for example.

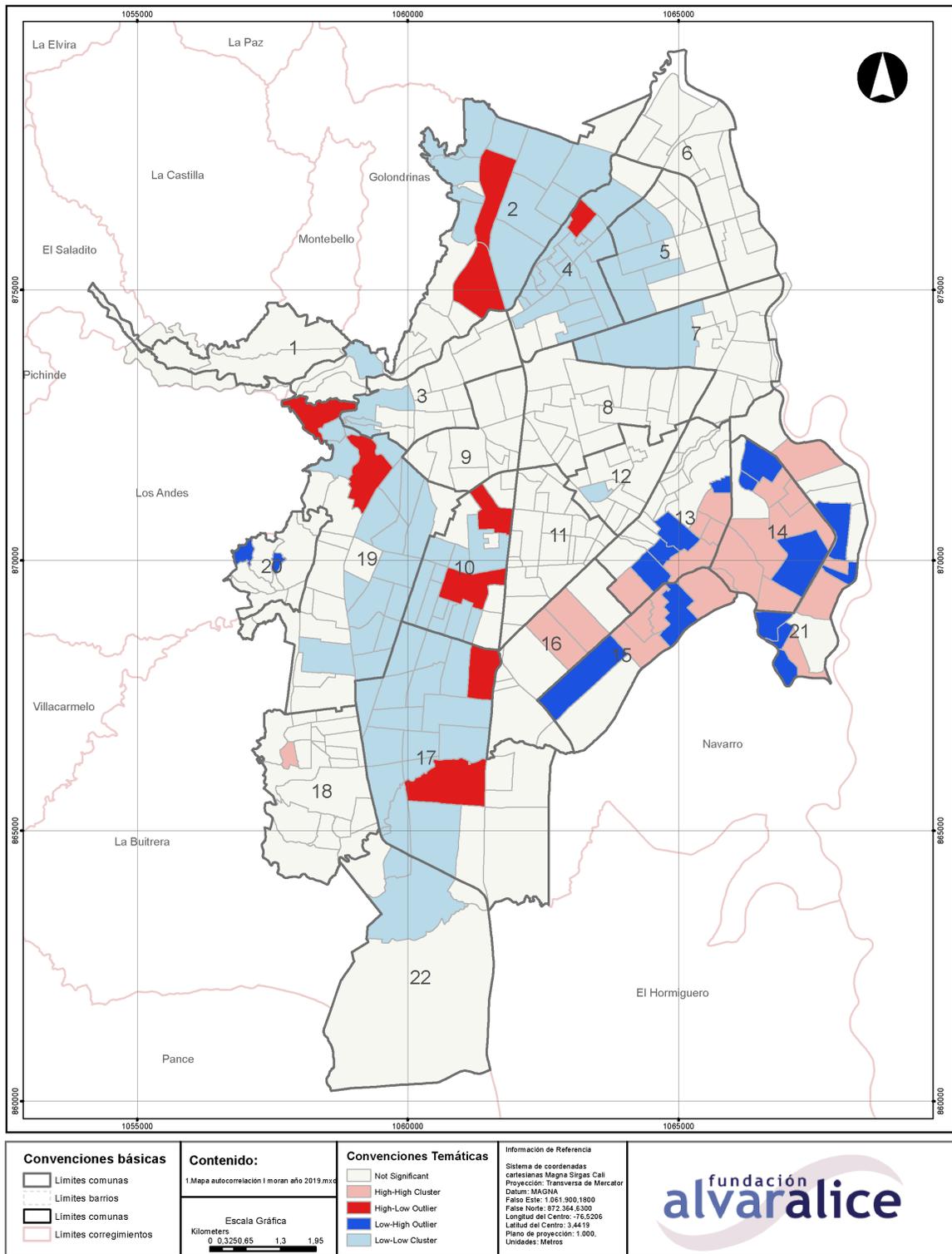
⁸ This shows where criminal events have occurred in the territory.

⁹ This reveals how users of the space perceive insecurity or social disorder in the territories.

Map 1
Cartography recommended for crime analysis: quantiles, heat maps and spatial autocorrelations of homicides in Cali, Colombia, 2018



Map 1 (concluded)



Source: Prepared by the authors, based on data from the Security Observatory of the Office of the Mayor of Santiago de Cali.

(e) Information quality control

To ensure the quality, relevance and credibility of statistical products relating to security and justice, it is important that systems of security and criminal justice statistics adhere to the United Nations Fundamental Principles of Official Statistics.¹⁰ It is also essential to have technical standards and regulations in place to enable the statistical authority in each country to periodically assess the afore-mentioned aspects.

3. Use of statistics

(a) Systems interoperability

Systems interoperability is essential for optimizing information exchange between all statistical processes (ECLAC, 2019c). To this end, the global partnership for sustainable development recommends that the set of business processes used to produce official statistics should have a legal framework and harmonized terminology to facilitate dialogue between different institutions, as well as data and metadata structures that are easy to understand and manipulate (González Morales and Orrell, 2018).

(b) Disaggregation

Disaggregations put into practice the premise of the 2030 Agenda for Sustainable Development to leave no one behind, as they shed light on the characteristics of groups and their differences. Different dimensions must be taken into account for disaggregation, for example by sex, age or disability. It is also important to categorize these dimensions, for example by male or female, age group, and even create multidimensional disaggregations, such as older persons with chronic illnesses or victims of domestic violence.

(c) Access to microdata

Providing access to security and criminal justice microdata through open-access formats will foster greater trust and engagement with respondents, by enabling them to learn about criminal behaviour and the main threats of interest to them.

It is advisable to encourage the use of platforms that facilitate access to real-time data, such as dashboards, with interactive maps, statistical indicators and comparative graphs that show crime trends over time and space, with filters for relevant variables. In addition, in the case of open-access data, personal information must be made anonymous, respecting the respondents' right to privacy and the ethical commitments of the institutions that collect the information in question.

(d) Research

The development of academic or specialized research aimed at understanding crime and measuring the effects of public policies, security plans and strategies will add value and purpose to security and criminal justice data. This research, which may use descriptive, epidemiological, econometric or other analytical techniques, can inform the design of a specific public policy and determine its effect on crime trends, or to perform a comparative analysis to establish baselines and develop future prospects, among other purposes. However, it is important to complement this with qualitative analyses that provide a more thorough understanding of the criminal context.

¹⁰ These fundamental principles relate to: (1) relevance, impartiality and equal access; (2) professional standards and ethics; (3) accountability and transparency; (4) prevention of misuse; (5) sources of official statistics; (6) confidentiality; (7) legislation; (8) national coordination; (9) use of international standards; (10) international cooperation.

(e) Confidentiality of information

Maintaining the confidentiality of the data collected is crucial for ensuring respect for respondents, not violating their rights and preserving their privacy¹¹ and confidentiality,¹² and protecting them from possible harm, whether psychological or physical. With a view to safeguard respondents' privacy, the University of California at Irvine (UCI, 2021) recommends defining the limits within which people are willing to share information, based on the cultural norms and age of the population groups to be interviewed. It also recommends clearly explaining the purpose of the research to the respondents or interviewees about and requesting their consent to make use of their data.¹³

E. IMPLEMENTATION PATH

1. International cooperation

Establishing technical and financial assistance agreements with different international institutions and cooperating agencies will facilitate implementation of the recommendations made in this document, allowing for their sustainability over time. In particular, the Regional Collaborative Platform (RCP) for Latin America and the Caribbean¹⁴ brings together all United Nations development entities working in the region to jointly respond to the challenges of implementing the 2030 Agenda for Sustainable Development.

Building the technical capacity of staff of national statistical offices and security and justice institutions to coordinate and improve data design, capture, purging, analysis and visualization will make it possible to generate more reliable and comparable information, useful for public policy decision-making and the formulation of strategies for reducing all types of violence and crime.

2. Partnerships with the private sector and academia

The promotion of partnerships between the government and academia will help develop greater technical capacities among local teams. This will make it easier to build the knowledge, skills and capacities needed to implement the recommendations of this document. In addition, it will allow for greater and better use of data and information, facilitating analyses and research to deepen studies on the dynamics of crime and the effectiveness of measures to address it. At the same time, coordination with the private sector will facilitate the dissemination of evidence on which to base decisions aimed at reducing threats and risks, in conjunction with the authorities.

¹¹ Privacy refers to an individual's right to decide the time, depth and circumstances in which they choose to provide information. This affects how the evaluator obtains the data so that the interviewee's boundaries are not violated. Strategies need to be put in place that allow access to information or contact with participants.

¹² Confidentiality relates to who the information provided by respondents is treated. There should be a process of informed consent, informing the respondent of the precautions that will be taken to protect the confidentiality of the data and who (individuals or organizations) will have access to the data.

¹³ When specifying data collection methods, researchers should be guided by the following questions: Would the subjects feel comfortable giving information in this way? Would the subjects have any expectation of privacy regarding the subject under study? Will the researcher have to collect information from a third party if the subject of interest is unable to provide the information? If so, is informed consent from this third party necessary?

¹⁴ For further information, see United Nations (2021).

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Annex 1

**GENERAL TABLE OF CONTENTS OF THE DOCUMENT “REFERENCE FRAMEWORK
FOR SYSTEMS OF SECURITY AND CRIMINAL JUSTICE STATISTICS
IN LATIN AMERICA AND THE CARIBBEAN”¹⁵**

Presentation

- I. Objective of the document
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 - C. Components of the criminal justice process
 - 1. Public security
 - 2. Prosecution component
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¹⁵ This table of contents may undergo minor editorial adjustments in the final document.

- D. Challenges for systems of security and criminal justice statistics
 - 1. Use of technology and artificial intelligence in the production of information on the criminal process
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Bibliography