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UNODC Data Quality Assurance

Developing and implementing a data quality policy in UNODC involve a number of areas and require a number of steps. The table below illustrates the components of the UNODC policy on data quality. Each of these components will be defined in subsequent parts of the paper making it explicit how UNODC operates to meet the stated principles. Maintaining a system to ensure the quality of data across the office is an on-going process. Some of the components listed in the table/policy are rooted in the practices of the office, others require time to be embedded in the culture and routine of the office. One of the most important aspects of data quality for example is the systematic description and documentation of the procedures that define a statistical system for drugs and crime¹. This is an enormous task which can be implemented only on a step-by-step approach. Some of the procedures are already documented, but a systematic and ordered system where all methodology and practices are described in details will be developed with an incremental approach.

Institutional Framework to ensure Data Quality		Data system and tools crime with a view to maximize quality
<u>Institutional Environment</u> <ul style="list-style-type: none"> • Cooperation with Member States • Culture of data quality in UNODC • UNODC Data Quality Steering Committee • UNODC Policy on the release of Data/Publications 	<u>Corporate Data Quality Commitment</u> <ul style="list-style-type: none"> • A UNODC corporate commitment to data quality • Responsibility for data quality within the organization • Adequacy of resources • Mandate for data work in UNODC • Relationship with producers and users of data 	
The UNODC <i>ethic</i> on data quality <ul style="list-style-type: none"> • Professional independence/Impartiality and Objectivity • Methodological soundness • Transparency • Confidentiality and security • Cost effectiveness (??) • Minimum burden on respondents 	How does UNODC ensure the quality of its data? <ul style="list-style-type: none"> • Relevance • Accuracy • Timeliness and punctuality • Coherence and comparability • Accessibility and clarity 	
Evaluation and Continuous Improvement		

¹ This includes the description of all methods used (or to be used) during the collection of data (being the implementation of surveys in the field or the collection of secondary data from MS) and the processing and analysis of data (producing for example regional and global estimates or imputing data to fill gaps).

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1 THE INSTITUTIONAL ENVIRONMENT

1.1 COOPERATION WITH MEMBER STATES

As other international organizations, the quality of UNODC statistics highly depends on the quality of the data and information existing in and provided by Member States. Member States are also crucial partners in activities where UNODC is involved in primary data collection (survey implementation), therefore maintaining an explicit, constructive and transparent relationship with MS is crucial in maintaining data quality.

Given the wide variability in the capacity of the countries to produce high quality data, UNODC faces several challenges to bring all national data under the same conceptual and quality framework. The office recognizes the authority of MS to define the best data to be reported to UNODC, however, sometimes the data reported by MS do not meet the comparability and quality required by international standards. It is therefore important that UNODC follows consistent and transparent procedures in deciding what data can be used and disseminated in its publications and how to communicate to countries on this matter.

Provision of standard methodology and definitions. In order to ensure a common understanding of the data to be transmitted by MS to UNODC, the data collection tools include definitions and guidelines on the data to be provided. The three main data collection tools utilized by UNODC to collect data from Member States (ARQ, CTS, IS) have been improved in 2011 to provide clear information on the data required. A contact e-mail address and telephone number is provided to answer questions or provide support to countries in the compilation of each questionnaire. The Office also provides training to countries to improve the understanding of standard concepts and methodology required to fill out the two main data collection tools on drugs (ARQ) and crime (CTS). In order to further facilitate the understanding of the ARQ, UNODC is in the process of finalizing an e-training package.

Standard and transparent process to assess the quality of the data provided by MS. UNODC assess the quality of the data against specific criteria which are described in session These are strictly linked to topic and the nature of the data. For example, a minimum criterion for data on the prevalence of drug use is the coverage of the population. More in general the data are checked for accuracy, adherence to the provided definition, coverage, consistency and comparability.

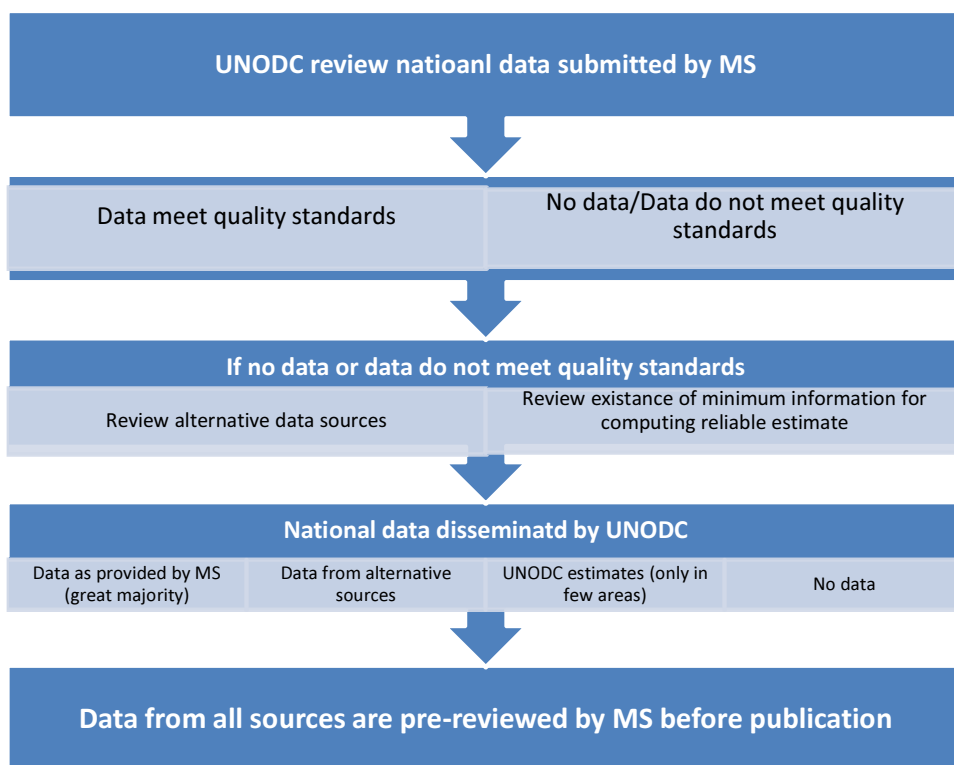
Technical focal points in MS. UNODC encourages MS to appoint national focal points with whom the Office can have technical discussions to obtain clarifications on the data provided and ensure the selection of the best data. The identification of FP also helps to better target UNODC efforts towards training programme on data collection tools. The CCPCJ.....

Transparent process to fill data gaps or to substitute national data which do not meet quality standards. There is an heterogeneous capacity of countries to report data to UNODC. Many

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countries report timely and good quality data; however, some countries do not respond to data requests and others submit only partial information or information that do not meet the requirements. In these circumstances the Office looks for alternative information browsing different sources. If data are identified, they are assessed using standard quality criteria (which depend on the topic and nature of the data as described in ..). Criteria to select alternative sources are described in .., but for example government sources are always preferred while media are not considered trustful data sources. In some areas, UNODC presents national estimates made on the basis of other available information, following a standard model for all countries². UNODC does not fill all national data gaps and many empty cells remain in international data series on drugs and crime. In countries where UNODC has identified technical focal points, the above procedures are discussed and evaluated together with the national counterparts.

Data pre-reviewed by MS. Before final publication UNODC submits draft national data to MS for their review. Data include those originally provided by MS, those obtained by other sources or estimates made by UNODC. Feedback provided by MS on the draft data are incorporated in the final data series. This step can considerably improve data quality as errors or misunderstanding can be clarified. In order to preserve its professional independence, UNODC does not ask MS to pre-review the narrative or the analysis which is derived by the data, unless narratives include other information (qualitative or quantitative) outside of the reported national data.



² An example is the estimation process utilized by UNODC to estimate adult prevalence rates of drugs on the basis of data from school surveys.

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Management of disputes between UNODC and MS on publication of national data. In rare occasions there may be disagreements between UNODC and MS on the national data to be published. While UNODC's unique goal is to maximize data quality as described in this paper, it can happen that a MS applies a different quality standard to its national data and that experts cannot come to a common position. One option that UNODC applies in such circumstances is not to publish any data. (more?)

Managing partnerships between UNODC and MS in primary data collection. UNODC supports some MS in the collection of primary information through surveys or other data collection mechanisms. As a result of these activities raw data or publications are jointly released by UNODC and national governments. At the stage of initiating these partnerships, it is important to define the quality framework which guides decisions/choices on methodology, data processing, data confidentiality, and release of the results. UNODC's engagement in data collection partnerships is conditional to minimum quality standards which should be made explicit with the national government through a formal agreement signed before the data collection starts. While each agreement should be tailored to the national needs and circumstances, at minimum, it should include the following:

- Description of methodology (developed considering accuracy, cost and feasibility) and work plan
- Adherence to agreed methodology. Methodology should not be changed after reviewing the results of the data collection and if a change is needed in the methodology after the signing of the agreement, the change should be agreed by both UNODC and national government
- Treatment of data and confidentiality. Data should be treated in accordance with national data confidentiality laws and UNODC confidentiality policy (see session...)
- Establishment of a technical consultation mechanism (technical committee) to maintain a regular technical consultation between UNODC and the national government during the entire data collection process
- Release of data/publication. The release of the results of the data collection activity should not be conditional to the results obtained in the data collection and the agreement should specify a maximum time-lag between the finalization of the data collection and the public release of the information. The agreement should also regulate the sharing of draft data/publication between UNODC and the government and between the two parties and external entities.

1.2 DATA QUALITY STEERING COMMITTEE

Defining the mechanisms to maximize data quality and implementing them is an on-going process. The preparation and the approval of this paper is not the end but the beginning of the process which needs to be embedded into the regular data work of the Office. This process does not only concern SASS, the section which manages the main statistical system, but it also involves a number of other areas which may be directly or indirectly affected by choices made on data quality or they may be the drivers in the implementation of specific aspects of data quality. Important decisions on data quality should be discussed among all concerned departments/sections/units in the Steering Committee on Data Quality.

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The Committee has the function to advise the Director of DPA on crucial aspects of data quality affecting the Office including for example the development of new data collection activities (in the field and headquarters), the reconciliation of data inconsistencies across the Office, the reconciliation of data disputes with MS, the discontinuation of existing data collection activities, changes in methodology used for making national/regional/global estimates, etc. The Committee has also a role to ensure that there are no duplications of efforts within the organization and that data collection activities in the field and HQ are strictly related to UNODC mandate and are implemented according to the criteria set up in this paper.

Steering Committee on Data Quality	
Membership	Terms of Reference
<u>Core members</u> SASS STAS LSS IPB	The Committee is expected to: <ul style="list-style-type: none"> • make decisions on technical aspects related to data quality (including for example methodology, relevance, and timeliness of the data) • make decisions on how to avoid data duplications and inconsistencies where needed • make decisions to improve the infrastructure of the statistical system to make sure that it serves the needs of all UNODC internal users • advise DPA Director and other senior UNODC managers on key aspects related to data quality, including: <ul style="list-style-type: none"> ○ Approving new data collection activities ○ Resolving data disputes across the Office or between the Office and external partners (MS and other organizations)
<u>Ad-hoc members</u> ITS DHS OCB JS IEU	
How the Committee operates: SASS facilitates the activities of the Committee which should meet at least twice every year. Decisions taken by the Committee are transmitted to the Director of DPA.	

1.3 RELEASE OF DATA-PUBLICATIONS

The internal approval of UNODC data and publications follows the process described by the existing Publication Policy approved by ExCom in ... (see Annex...). In addition data-publications follow the following procedures:

- Data included in regional/global publications are reviewed by MS (as described above in ..), but analysis exclusively based on the reviewed data are not shared to external UNODC entities or MS before their release³. Following one of the Principles (..) to treat all users equally, data and publications are made available to all users at a single point in time and in the same format. Pre-release access of UNODC data/publications is restricted to people who are essential for production publication and for quality assurance purposes. Embargoed copies of publications can be shared with media or other relevant stakeholders a maximum of three days (??) prior publication. The process of sharing embargoed copies is clearly

³This ensures that UNODC maintains professional independence as stated in the International Principles of International Statistics.

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defined by transparent rules which do not favour any single MS or other external party.⁴ UNODC does not make special arrangements with selected countries or other parties to review drafts or receive advanced copies.

- Publication of data/publications prepared in partnership with national governments are subject to the approval process of both UNODC and national government as described above in ...

The existence of a defined and publically announced timetable for the release of data/publications helps to keep the professional independence of the Office as it mitigates the risk that data or publications are withheld or delayed because of political pressure. While the format of releasing data can vary according to different circumstances, the choice of making a data output public can not depend on the nature of the results. A good example that UNODC has been following for years is the publication of the World Drug Report which is released every year on June 26th. The date marks the international day against illicit drugs and maintaining this practice helps UNODC to manage expectations of users and to avoid possible attempts to change the regular release of annual drug statistics.

Many of the data collection activities in UNODC are regularly undertaken on an annual basis and the Office has adopted work plans which reflect the annual cycle of activities. These work plans support staff to maintain the annual cycle of activities and they make the operations more transparent. In addition, they can better define users' expectations as the time for annual release of data/publications is defined in advance. Annex ... present the work plan for the main annual UNODC activities related to data collection and dissemination (WDR/ARQ, CTS, Surveys in Afghanistan, Myanmar, Andean countries).

2 A CORPORATE DATA QUALITY COMMITMENT

UNODC is committed to the quality of its data. All UNODC offices, both at Headquarters and at the field level, play a role in upholding UNODC's quality commitment (see Annex **Error! Reference source not found.** for UNODC department data quality assurance roles, to check!!).

As part of this commitment on data quality, in 2005 UNODC endorsed the Principles Governing International Statistical Activities⁵ developed by the Committee on Coordination of Statistical Activities (CCSA) to provide guidelines for the production and dissemination of statistics in the specific context of international organizations. Such principles call for impartiality, objectivity, professionalism and transparency in the compilation process, avoidance of misinterpretation of the statistical output, and consistency with regard to the applied concepts, classifications and methods.

⁴ For example, regional and UNODC for example Regional and global publications are equally reviewed by for example are equally shared Publications that cover

⁵ Approved by the UN Statistical Commission and endorsed by UNODC in 2005. See http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.asp (accessed on 13 March 2012)

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In 2008 UNODC established a dedicated Section on Statistics (Statistics and Surveys Section) to strengthen data collection, processing and dissemination and have dedicated operations which implement data quality procedures and ensure that statistics are in line with international standards.

In 2011 UNODC recognized the need for a corporate policy on data quality and the ExCom mandated the development of the policy described in this paper. In line with practices in other international organizations started an international process The development of Developing a data quality policy is another step that UNODC has undertaken to mainstream into all its offices the culture of data quality and to explain to external stakeholders the principles which guide the Office in defining data quality. Other institutional commitments are demonstrated by the following actions:

- The **Data Quality policy defined in this paper** is made available to the **public**
- The UNODC data quality commitment is **incorporated in its strategic planning and program evaluation work** to improve the impact and use of data published by UNODC and enhance the role and reputation of UNODC as information provider and member of the international statistical network
- The Data Quality Policy described in this paper and its operational implementation are **reviewed and adjusted** on a regular basis
- An **organizational structure** is in place to deal with quality management and data quality assurance activities are embedded in standard task and role descriptions.
- **Staff, financial resources and computing tools adequate** both in terms of magnitude and quality are made available to meet current data management needs
- **Product and process quality is regularly monitored** using external experts where appropriate, assessed with regard to possible trade-offs, and reported according to the quality criteria for UNODC data

2.1 AN INSTITUTIONAL FRAMEWORK FOR STATISTICAL DATA MANAGEMENT

Statistical activities at UNODC are mainly conducted by the Research and Trend Analysis Branch (DPA/RAB), which also supervises statistical activities implemented by other units and field offices. Responsibility of data management processes and outputs rests with the Director for Policy Analysis and Public Affairs, who allocates specific functions and responsibilities for statistical activities to responsible sections/units.

Production of statistical data represents one of the pillars of UNODC work programme; statistical outputs achieve a high level of visibility and they highly contribute to the reputation and credibility of the organization. For these reasons a broad consultation on strategic it is recommended that functions and responsibilities for statistical activities are clearly defined and a bodysteering committee

2.2 ADEQUACY OF RESOURCES

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UNODC is committed to securing stable and sufficient funding and make adequate resources available to UNODC data management procedures and activities to meet data quality requirements..

An adequate level of resource stability and sufficient funding is very important to build and maintain high quality data series. This is an undertaking that requires a long term perspective in light of the challenges faced when building data series on crime and illicit drugs topics with comprehensive geographical coverage.

The following practices are recommended to meet data quality needs:

- Allocate specific financial resources for maintenance and further development of data management systems and tools.
- Establish and implement procedures to assess and justify demands for the collection of new data against their cost.
- Assess the continuing need for instruments used or data collected, to see if any can be discontinued or curtailed to free up resources and decrease the burden on data providers.
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- Ensure that technical assistance programs involving statistical activities allocate adequate resources for data management activities Engage the donor community in data quality improvement initiatives.

Principles	Concrete implementation
<i>Financial</i>	
<i>Staff</i>	
<i>Tools and computing resources</i>	
<i>Cost-effectiveness</i>	

UNODC safeguards impartiality and professional independence from other policy, regulatory or administrative departments and bodies, as well as from donors and private sector operators to ensure the credibility of its data.

Impartiality and objectivity are crucial to protect and further develop the credibility of UNODC data and its analyses.

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Principles	Concrete implementation
Data collection is performed in partnership with Member States	
Standard review procedures exist and are followed before data is disseminated	
There are systems in place that support the independence of UNODC's Policy Analysis and Research Branch from any external interference in developing, producing and disseminating statistics.	
Statistical releases are clearly distinguished and issued separately from policy prescriptive and advocacy statements.	

2.3 MANDATE FOR DATA COLLECTION AND DATA DISSEMINATION

The mandate of the UNODC to collect information for the development, production and dissemination of crime and illicit drug data derive from a variety of sources, including international conventions, resolutions and decisions of United Nations legislative bodies, requests of technical assistance from Member States, voluntary participation of national authorities in data collection activities

UNODC aligns data management activities with its mandate to be able to focus on its core competence, evolve according to international consensus on priorities and needs and to ensure the legitimacy of its data collection and data analysis activities.

The following table provides a high-level summary overview of UNODC's mandate.

Mandate	Description
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Specific mandate based on existing conventions	UNODC as guardian of the Drug and Crime related conventions such as: <ul style="list-style-type: none"> • The International Drug Control Conventions • The United Nations Convention against Transnational Organized Crime and its three protocols (against trafficking in persons, smuggling of migrants and trafficking in firearms) • The United Nations Convention against Corruption •
Broad mandate rooted in accepted practices (including research in relation to conventions under preparation)	Address the interrelated issues of drug control, crime and international terrorism at international level in all its forms.

2.4 COOPERATIVE RELATION WITH PRODUCERS, AND USERS OF DATA

UNODC has a mission to create a crime- and illicit drug information platform for the Global Community in close cooperation with data producers, data providers and data users. Data collection is based on voluntary data contribution to UNODC whenever possible and pro-active data gathering by UNODC when needed. Improving data quality is a shared responsibility and a cooperative relation with data producers, providers and data users is crucial to make the data sufficiently valuable for all its stakeholders.

After all, sharing of crime and illicit drugs data at international level:

- is a two-way process that enables the identification of links between people, objects, locations and events that would not be possible otherwise;
- enables partners to make more informed decisions about how best to protect the public and improve public services related to the fight against illicit drugs and crime both at international as well as national level;
- leads to an increased openness among partners which, in turn, builds confidence and trust in the public services.
- increases expertise and professionalism

The Global Crime and Drugs Statistics System serves as a network partnership. Ownership of the data remains with the data source, the data producers. But intermediary bodies may be used as data providers and UNODC may conclude data exchange cooperation agreements with third parties where necessary.

Data producers	Data providers	Data users
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National administrations	National administrations	National administrations
Academics and experts	Academics and experts	Academics and experts
International organizations	International organizations	International organizations
Local governmental actors	Local governmental actors	Local governmental actors
Non-Governmental Organizations/Civil Society	Non-Governmental Organizations/Civil Society	Non-Governmental Organizations/Civil Society
Service providers/for profit organizations	Service providers/for profit organizations	Service providers/for profit organizations
UNODC departments and UNODC field offices	UNODC departments and UNODC field offices	UNODC departments and UNODC field offices
		Media

In order to ensure good relations with, and between its data providers UNODC is committed to:

- Acknowledge data providers together with the publication of data when requested
- Release data before publication to the data providers for validation
- Assist data sources and data providers to improve their technical data management capacity where possible

Section **Error! Reference source not found.** provides more information on the specificities of UNODCs cooperation relationship with Member States.

2.5 POLICIES AND PROCEDURES

2.5.1 DISCLOSURE POLICY - TRANSPARENCY

In line with the principle of accessibility, data quality standards and assessment procedures are disclosed to the largest possible extent to data providers and data users.

The UNODC data dissemination policy adheres to the Principle of Open Data as much as possible:

In principle, there are no subscriptions, no registration—nothing between the user and the data and data is made public without any restrictions.

Transparency with respect to the responsibilities of departments, procedures and timelines is key to

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2.5.2 DATA PROTECTION AND CONFIDENTIALITY SAFEGUARDS

UNODC protects the privacy of data providers (households, enterprises, administrations and other respondents), the confidentiality of the information they provide. Statistical data is used only for statistical purposes.

UNODC has the following data protection and confidentiality safeguards:

Principles	Concrete implementation
UNODC staff sign legal confidentiality commitments on appointment.	
Guidelines and instructions are provided to staff on the protection of data confidentiality in the production and dissemination processes. The confidentiality policy is made known to the public.	
Penalties are prescribed for any willful breaches of confidentiality.	
Physical, technological and organizational provisions are in place to protect the security and integrity of sensitive data.	
Strict protocols apply to external users accessing statistical micro-data for research purposes.	
When a datum or a data set originates from too few individuals, the datum is considered confidential and is aggregated to protect confidentiality	

2.5.3 RISK MANAGEMENT

The following table represents the main risks identified and enlists UNODC mitigation activities.

Risks	Impact	Probability	Mitigation (avoid, reduce, share, retain)
Publication of erroneous data	High	Low	Prior to data publication, UNODC provides the data to contact points in the national administrations.
Country coverage data gaps	Medium	High	Bi-annual reviews of country data provision levels

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Data field coverage data gaps	Medium	High	Bi-annual reviews of data field data provision levels
Data misinterpretation	Medium	High	On-going and systematic dialogue with Data Provision Network members Clear metadata tags.

2.5.4 CONFLICT MANAGEMENT

In the event of conflicting opinions related to data release or data quality with external parties, the Head of the Policy Analysis and Research Branch determines UNODC's position and communicates it with the external parties.

If no agreement is reached after further dialogue, the UNODC Director's Unit is engaged. Third party mediation can be envisaged when necessary.