Building Trust in Official Statistics in a Digital Society: A Commentary

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Introduction

The note by the ESCAP Secretariat, Building Trust in Official Statistics in a Digital Society (ESCAP/CST(10)/4), presents an excellent overview of the emerging risk of eroding trust in official statistics and the need to remain vigilant in fostering continued confidence. The note makes three important points. First, there are profound changes in data ecosystems because of technological advances. Big data streams, Agentic AI applications, and API connectivity have resulted in an abundance of data and information flowing through connected devices. The national statistical offices must adapt their traditional practices to navigate a new, chaotic data ecosystem. Second, enhancing trustworthiness is a necessary first step to build trust in official statistics. The note highlights four dimensions of trustworthiness for consideration: credibility, accessibility, transparency, and ethical integrity. Third, a coherent strategy to build trust should include institutional safeguards, intensified user engagement, and the adoption of new technology and business practices. These are necessary steps to ensure official statistics remain useful and impactful in decision-making and public discussions.

This commentary raises eight additional issues for discussion, to complement the points discussed by the ESCAP Secretariat. These issues dive deeper into the challenges faced by the National Statistical Offices (NSOs).

Issue 1: Is 'Trust' in Official Statistics an important issue in the Asia Pacific region?

Trust in official statistics has become a popular topic for seminars and forums internationally. The popularity of this agenda item seems to suggest a looming crisis in the confidence placed in official statistics. Is this true? The commissioning of a special report on Trust and Official Statistics by the United Kingdom's Office for Statistics Regulation in 2026 adds weight to the impression that there is a serious concern. It is a fact that the UK has undergone review after review of its statistical system, and there is no doubt that more reviews will come. But is the UK's unique problem a reflection of a global trend? Is the statistical community being too alarmist? Even in the UK, 87% of respondents in a 2023 Public Confidence in Official Statistics survey reported trusting the Office for National Statistics. What is telling is the 'Politician vs Statistician' gap. Only 35% in the same survey trusted politicians to present the statistics honestly, and 24% trusted newspapers to report them without bias. It appears that the UK's problem is not a trust deficit in official statistics, but rather a need to improve its internal organisation and the monitoring of the economy and society. This was the point made by the Bean Report in 2016 and the recent re-organisation of the statistical office. A recent internal evaluation by Eurostat showed the same high level of trust: 95% of its users reported trusting European statistics (Eurostat 2024 user survey).

In the Asia-Pacific region, trust in official statistics has not been a major point of discussion. There is no evidence to suggest that public confidence in official statistics is eroding in this region. Indeed, the lack of public discussion on the quality and adequacy of official statistics could be a symptom of 'Habitual Acceptance' or 'Resigned Trust'. There are occasional queries about the timeliness and accuracy of statistical indicators, mainly focusing on the compilation of GDP, discrepancies in real-time indicators, the gap between official inflation and wallet inflation, and respondent fatigue. These are perennial technical issues, and they do not in any way threaten the foundation of official statistics in the region.

The key challenge confronting the national statistical offices in the Asia Pacific region is not the lack of trust; it is about 'relevance' and 'competition'. Rapid technological changes have revolutionised the information ecosystem. Agentic AI could produce an economic assessment using multiple, open-source, timely economic signals. While official economic measures remain the gold standard, the market is likely to react to the real-time signals. NSOs also face competition within the government, as ministries and agencies now push their own data and assessments as alternative empirical benchmarks. In the era of increasing competition from a chaotic data ecosystem, the national statistical office must strive to adapt to improve its range of products and services. The NSOs may be increasingly marginalised, but their work of maintaining statistical standards and quality within the government and beyond must continue, building on the trust placed by the public and government in their expertise and professionalism, and a long tradition of compiling statistical information for policy use.

Issue 2: How are data and statistics being perceived or used in the digital era?

The digital era has altered the data environment in which NSOs operate. How are the data and statistics being consumed and used in the digital era? Traditionally, mass media outlets report the press releases from NSOs in great detail and with prominence. They still do for some headline numbers, but competing indicators now receive equal, if not more, attention. Some quick surveys with questionable methodology could receive prominent coverage if the topic is deemed of public interest, with little regard to the accuracy of the results. Mass media practices reflect how data and statistics are being consumed in the digital era, from organisations to individuals. The reality is that there are many more indicators out there, and most people will want to see them at face value quickly rather than assess the relative quality of the basket of indicators.

The 'take and accept what they see' behaviour has become the norm. A search for statistical indicators will mean typing a query into AI models and accepting the generated output. Evaluating statistical methodology, such as sample size and margin of error, takes time and mental effort. Most people practice 'satisficing'—accepting information that is "good enough" for quick decision-making or conversation rather than digging into the raw data. How data are being consumed could also be affected by 'confirmation bias', as the public accepts the number that is aligned with their belief. The indicators produced by information vendors

could also create an ‘illusion of precision’ with their fancy charts and tables. This is so common nowadays that NSOs' statistical releases pale in comparison in terms of attracting readers.

In recent years, the chaotic data environment has shifted to a new level of confusion. The consumption of data and statistics has shifted from human to AI systems, and data and statistics are being harvested, interpreted and acted upon autonomously. In the agentic era, information is pulled through both structured and unstructured channels via APIs or embeddings and fed directly into decision-making platforms. The accuracy of the information retrieved may be judged only by how many agents use the number, rather than by the methodology and validity checks. The experiment conducted by the Singapore Department of Statistics is telling: almost none of the AI models assessed report the correct CPI released by the statistics office.

NSOs are taking steps to ensure that the AI agents capture the correct, up-to-date official releases. Statistics South Africa, for example, has announced its MCP (model context protocol) platform to ensure its data are read correctly by AI models. Statistical offices in the Asia Pacific region, such as those of South Korea, Hong Kong, and Singapore, are experimenting with similar approaches. Even though correct data are being fed into the AI models, it is unclear how AI will assess official statistics with other indicators. There is an urgent need to understand how AI models are being trained to consume statistical indicators and assess their reliability.

Issue 3: Which is more important: trust in output or trust in institution?

Trust in official statistics is often discussed in two dimensions: trust in the output and trust in the institution producing it. The two dimensions are often given equal weight. But are they equally important? They indeed exist in a symbiotic relationship. A strong, reputed institution will predispose a favourable view of its output. High-quality, reliable output will, in turn, generate a good impression of the institution. Frequent errors in a specific output will erode trust in it and may also contaminate the institution's reputation.

It has been argued that trust in statistical output is largely derived from proxy trust in the institution that produces it, since no user can fully understand or assess the complex methodology involved in its compilation. Trust in the institution is often considered ‘primary’, the structural anchor of a favourable reputation. But the institution is also subject to risks beyond professional expertise, as it is part of a country's political and social fabric. Often the statistical institution is perceived as an extension of the larger political system. Any mistrust of the political leadership will have a collateral effect on the statistical institution. Data and statistics can also be politicised, with politicians criticising statistics to gain political advantage. This could, in turn, lead to a decline in the statistical institution's credibility and trust.

The quality of a statistical series is entirely dependent on the technical production process. A single error could be corrected and explained, restoring trust in the production process and the final output. This is a professional issue and can be managed through a technical process. However, an institution could be subjected to a host of political and management interference

due to a single error. Political interference in institutional practices may cast doubt on the integrity of the production process.

Issue 4: How do we build institutional reputation as an anchor of trust?

Building and maintaining an institutional reputation as an anchor of trust, especially during periods of broader social fragmentation and political polarisation, warrants greater discussion within the statistical community. This requires moving beyond technical, methodological issues alone. It demands a deliberate strategy across governance, communication, and public engagement. Lessons can be learnt by examining the practices of statistical offices with strong institutional reputations, as well as those that have been subjected to significant political interference, such as in Greece and Argentina.

A statistical office is, first and foremost, a technical organisation. It must therefore demonstrate strong professional expertise and independence. An institution with high technical trust can issue a major revision or admit a survey error without destroying its credibility. Its resilience to a single error will be strong. The public will view any error as a technical oversight rather than a malicious manipulation. This is the case for Statistics Canada, which announced an error in its CPI some years back. The error was speedily announced, explained, and corrected. There was no obvious damage to Statistics Canada's reputation, despite some embarrassment within the broader statistical community.

Statutory safeguards are important to generate the impression of professional autonomy. This includes legal frameworks with clear provisions for the appointment of leadership and mandates of statistical activities. Malaysia's 2026 Statistics Act is a good example. Part II of the Act spells out the authority, quality and selection process of the Chief Statistician. It also establishes a National Statistics Council, chaired by the Prime Minister of Malaysia, to coordinate statistics. Similar provisions can be found in other Asia Pacific countries. In Singapore, the designation of the Chief Statistician as National Statistical Coordinator provides a strong mandate to safeguard statistical practices.

A statistical office, as a technical entity, is often not well understood by the public. The reality is that we often take the communication process for granted, assuming that a properly compiled statistical indicator will be fully understood by all. Macro data, such as CPI, often need to be contextualised with micro-level realities, such as price surges in some household items. The incongruence between statistical data and personal experiences is one of the major factors leading to mistrust of official statistics. There has been some discussion in the statistical community about engaging journalists and schoolteachers to improve understanding of official statistics. Such efforts are commendable and deserve greater attention. One of the lessons learnt that is often reported is the strategy of 'plain language' communication, translating dense technical jargon into clear, precise insights.

To build institutional trust, the statistical community must come clean to explain the limits and uncertainties of statistical compilation. Trust can easily be eroded by the false perception of certainty. A revision to a statistical series is not an error-correction exercise but is necessary to provide a fuller picture due to more complete coverage. There are also limits to data collection exercises on some complicated issues. Technical issues arising from measuring the informal sector, transboundary migration, and perceptions of well-being are good examples. Negative comments have often been made about the adequacy of such measurements.

Issue 5: How important are the 'Fundamental Principles of Official Statistics'?

The statistical community strongly believes that the United Nations Fundamental Principles of Official Statistics (UNFPOS) are an important instrument for establishing institutional safeguards for trust in official statistics. The UNFPOS was endorsed by the United Nations Statistical Commission in 1994 and by the General Assembly in 2014. The discussion of the principles is less frequent now, partly due to their wide acceptance. The United Nations Statistics Division has estimated that some 140 countries have embedded the key principles in their national statistical laws. Moreover, the discussion of UNFPOS's increasing limitations reflects a realisation of the limits of UNFPOS's practical utility and its relevance in the new, dynamic data ecosystem.

The principles are essentially a code of conduct accepted by the statistical community. While statisticians understand and accept the concepts of 'professional independence', 'impartiality', and 'scientific principles', these concepts are very vague and subject to divergent interpretations. There have been efforts to enforce these concepts through peer reviews of statistical processes. The results were patchy at best, except in the European Community, where non-compliance can lead to infringement procedures. It is now accepted that adopting the principles is part of the statistical office's maturation process, subject to national laws and circumstances.

Critics of the principles often argue that building trust based on this set of principles is complicated because the public is generally not aware of their existence nor understand their relevance. Acceptance will rise if the principles are incorporated into national statistical laws. The Eurostat Regulation (EC) No 223/2009, for example, legally enforces the UNFPOS across all member states. The public rarely reads or cares about the statistical code of practice; they care only about data privacy, accuracy, and whether it reflects the reality of daily life. To fully explain the usefulness of UNFPOS, the statistical community would need to reframe the narrative, making the principles more public-centric. Currently, the narrative of the UNFPOS is entirely statistician-centric.

In the emerging data ecosystem, the number of information producers has multiplied manyfold. Many of these producers adhere to no standard code of good practice. There are inherent quality issues with data released by the producers into the public domain. Within the government, the statistical office could influence other ministries' use of statistical standards and practices. The data steward role can help ensure a certain quality standard. In the private sector, data and statistics are part of their commercial asset, and they do not adhere to any public mandate. Extending the core elements of UNFPOS to the private sector will be a key challenge and a topic worth discussing. Using UNFPOS or other Codes of Practice to make a chaotic data ecosystem more manageable and trustworthy must be the ultimate goal.

Issue 6: How should we demonstrate credibility and professionalism?

The ESCAP paper notes that enhancing the credibility of a statistical organisation is a critical pathway to increasing its trustworthiness. Credibility is inextricably tied to the confidence placed in the organisation and its output. As an organisation anchored in professional

expertise, the level of professionalism demonstrated throughout the production process is central to its credibility. How can we demonstrate credibility and professionalism to win public support?

Demonstrating credibility and professionalism requires a statistical office to operate as a transparent, impartial, and expert organisation. It is not enough to produce accurate numbers; the agency must actively show how those numbers are protected from political influence, why the methods are scientifically sound, and how the data sources are safeguarded. This has been called 'Process Integrity', a process that is built on adherence to established codes of practice—transparent methodologies, strict data protection, and predictable release schedules. The UNECE's Generic Statistical Business Process Model (GSBPM) and its variants are good examples of professional processes for exercising care and diligence in producing official statistics.

Professional credibility begins with visible independence from political cycles and executive pressure. The established steps by the statistical community include adhering to officially announced release calendars. The statistical releases are released strictly on schedule, regardless of whether the figures are favourable to the government of the day, to prevent allegations of news manipulation. The releases should follow the principle of 'equal and simultaneous access' and be disseminated to the public, the media, and policymakers simultaneously. In addition, as mentioned earlier, the appointment of the Chief Statistician should be based on professional qualifications and scientific merit rather than political patronage, and the appointee should preferably serve fixed statutory terms.

It is important to emphasise that professionalism in official statistics is rooted in scientific rigour and peer validation. The process of establishing global standards in official statistics is indeed anchored in this principle. From initial discussions among experts to detailed drafting in working groups and discussions, to final adoption at the United Nations Statistical Commission, the entire process is transparent and grounded in the best available scientific evidence. The procedural vigour and professional validation ensure that the established global standards are well respected and carry the highest credibility. In the same vein, at the national level, the issuance of national statistical standards and methodologies should follow a similar process. The methodologies and codes should be open and transparent. Any revisions should be clearly explained and made public.

A statistical office turns community data into trusted official statistics. It deals with multiple data sources. Indeed, trust in how data are managed and processed relies on the guarantee that individual data, when aggregated and analysed, will never be compromised or weaponised. Statutes have been enacted to ensure that data are protected. State-of-the-art anonymisation is being deployed to ensure robust data privacy and microdata masking, with support from secure enclave environments for academic access.

Issue 7: How should statistical offices engage the users to build trust?

Building and maintaining trust among users must be a priority for any statistical office. Any erosion of trust would affect the way official statistics are used to make informed decisions. The statistical community has discussed this issue extensively, and an explicit protocol has been established. The core element of this protocol is proactive transparency and openness to demystify the official statistics and the production process. This includes publishing clear metadata, explaining data sources, collection methods, and other technical specifications.

Adhering to an advance release calendar and adopting a clear revision policy also helps eliminate any perception of manipulation of the data and output.

Many statistical offices have established advisory boards to foster user consultation and to convey a sense of openness. Helpdesk and easy-to-use feedback channels have been established to facilitate communication with users. Statistical literacy programmes have been launched by some offices to educate journalists and students on the technical properties of official statistics.

While statistical offices understand and implement strategies to build trust in their statistical outputs, there is no clear strategy for addressing erroneous interpretations or the misuse of statistics. There is also no clear strategy to address substandard statistical indicators from the private sector. Principle 4 of UNFPOS explicitly gives NSOs the right and responsibility to comment on erroneous interpretations or misuse of statistics. There are suggestions that statistical offices should be more aggressive in pointing out errors and poor quality. Methodological advisories could, for example, be issued to benchmark poor-quality data against official releases. The United Kingdom has adopted an institutional approach by establishing the Office for Statistics Regulation, which issues regular advisories.

In the absence of an institutionalised body such as the one in the United Kingdom, should the chief statistician be more 'outspoken' as a 'trusted voice'? If the Chief Statistician is not speaking up, who then should be cleaning up the 'Naughty Numbers' and 'False Claims'? This issue has been debated in the statistical community for many years with no clear outcome. In the new data ecosystem, when more indicators are being generated, who should be the 'trusted voice' to guide the use of data is becoming an urgent issue. There is a clear need for public guidance on the quality of data being generated and how to interpret it. There seems to be a growing consensus that chief statisticians must be more outspoken and serve as visible public figures to address data quality, benchmarking, and the interpretation of indicators. If the chief statisticians do not take this role, politicians and partisan commentators will fill the void and use the indicators to their advantage.

In some countries, the chief statisticians are appointed not for technical merit but for their administrative experience. They may be good administrators but lack the confidence to speak out on technical issues. The appointment of a technical spokesperson may help address the reputation gap.

Issue 8: How should NSOs meet new demands and expectations in the digital era?

The data ecosystem is changing rapidly, driven by technology and the way the public consumes information. The NSO must adapt to this changing environment. Three areas are of priority: raising internal capability, performing the national data steward role, and building partnerships to manage the chaotic data ecosystem. Not all statistical offices start from the same position. Resources, legal mandates, and degrees of political independence vary widely across the region, and small island developing states often have small teams responsible for a full range of statistics. Regional cooperation will be necessary to make these priority areas achievable in the long run.

Raising internal capability is an issue that has been frequently discussed. Indeed, it is also clear that many statistical offices are responding to this challenge by bringing in new expertise in data science, data engineering, and process management. This is encouraging. There are also notable improvements in the integration of AI techniques into statistical production, including

intelligent coding, case management, data management, and sense-making. While many countries are rapidly adapting to the new technological environment, it is disappointing that some recent National Statistical Development Strategies (NSDS) still follow a traditional template, with little mention of the evolving data environment and new adaptive strategies. As countries adopt advanced statistical production architectures, sharing experiences helps build collective intelligence. Advanced data analysis, a digitised statistical production cycle, and data integration practices are examples of core elements of community intelligence. The Statistics Division of UN-ESCAP could play an instrumental role through its convening platforms.

There has also been much discussion of the role the NSOs should play in the data ecosystem. Some countries have established a dedicated national data office that formulates and implements the national data policy. Statistical offices in some countries have been given this role. Most statistical offices are not in the leading role in formulating national data policies but remain, structurally, a critical pillar of the data ecosystem. Regardless of its institutional role, the statistical office still has a professional responsibility to help manage and improve the data ecosystem. This professional data steward role, separated from the policy role, is the latest call to action by the statistical community. In this role, the statistical community helps build a high-quality, effective integrated data system by incorporating administrative registers, IoT sensor data, geospatial imagery, mobile positioning, and big data streams from the private sector. There are many good examples of good data stewardship in the Asia-Pacific region. Again, sharing good practices in the region will help ensure a smooth transition of a statistical office from a pure production role to a stewardship role.

In today's chaotic, multi-actor data ecosystem, where private data aggregators, research labs, and government agencies generate unstructured, real-time data at unprecedented scale, statistical offices can no longer rely solely on statutory commands or traditional transactional relationships with the respondents. In some countries, such as the EU, France, Malaysia, New Zealand, and South Korea, the statistics law has been amended to allow the statistical office to access private-sector databases for statistical purposes. Even with a legal mandate, accessing and evaluating private-sector data sources will not be easy. To maintain relevance and secure trusted data streams, statistical offices must build strategic, value-driven partnerships and shift from a rigid authority model to a collaborative data ecosystem approach.

Building a collaborative data ecosystem will require differential approaches to data partners. The public sector may be the easiest to deal with if there is a strong legal mandate. Singapore's Public Sector (Governance) Act 2018, for example, authorises data sharing across government entities. Singapore Department of Statistics' role as a 'Trust Data Centre' is enshrined in the government's data policy. The issues are more complicated when accessing granular, real-time data streams from private-sector holders to augment survey data. Much more persuasion is required to reach a cooperative agreement on data sharing. It will be useful to share case studies on how successful agreements are forged.