

Annex

Table 1: Comparison of other theoretical frameworks. Modified from Jolliffe et al. (2023)

Area	WDI Frame- work (2024)	Fantom & Khokhar (2014)	Jolliffe et al. (2021)	Statistics Canada (2017)	OECD (2011)	UN (2019)	Biemer (2010)
Adequate Coverage	Complete Frequent Timely	Completeness Timeliness	Complete Frequent Timely	Coverage Viability Timeliness & punctuality		Timeliness & punc- tual- ity	Completeness Timeliness/ punc- tuality
High Quality	Granular Accurate	Extent of detail Accuracy	Granular Accurate	Granularity Accuracy & reliability		Accuracy & relia- bility ity; Method- olog- ical sound- ness	Accuracy Accuracy
	Comparable	Comparability	Comparable	Standardization or conformance		Comparability	Comparability
Easy to Use	Not Re- dundant Accessible	Accessibility	Accessible	Accessibility	Openness/ trans- parency	Accessibility	Accessibility
	Understandable	Clarity	Understandable	Processability and under- standability		Clarity; Trans- parency ity	Usability/ inter- pretabil- ity
	Interoperable	Coherence	Interoperable	Combinability or likability	Coherence	Coherence	Coherence

	WDI Frame- work (2024)	Fantom & Khokhar (2014)	Jolliffe et al. (2021)	Statistics Canada (2017)	OECD (2011)	UN (2019)	Biemer (2010)
Area							
Trusted & Relevant	Impartial	Plausibility	Impartial	Perception of authority, impartiality & trustwor- thiness	Credibility objec- tivity; in- tegrity; im- par- tiality	Impartiality & ob- jec- tiv- ity	Quality
	Confidentiality protected	Confidentiality	Confidential	Security. Protection of sensitive information	Confidential pro- tected	Statistical con- fi- den- tial- ity & data secu- rity	Reliability
	Development Relevance	Relevance	Appropriate	Relevance & usefulness	Relevance & use- ful- ness	Relevance	Relevance
			Other	Quality assurance; reproducibil- ity; contact ability	Effective stake- holder en- gage- ment	Many, see table note	

Note: This figure is inspired by, and takes some information from, Jolliffe et al. (2023) & Marker (2017). The UN framework has many other attributes most of which are related to managing the statistical system and hence do not relate to the framework of this paper: Coordinating the national statistical system, managing relationships, managing statistical standards, professional independence, adequacy of resources, commitment to quality, appropriate statistical procedures, managing the respondent burden, and cost-effectiveness.

Table 2: WDI Metadata Required Fields

Field	Definition
Definition	Detailed definition of the indicator.
Definition references	Links/sources for the definition.
Development Relevance	Development relevance and importance of the indicator.
Methodology	Methodology used to calculate/derive the indicator.
Statistical concept	Statistical concepts and standards applied.
Measurement unit	Unit of measurement for the indicator.
Aggregation method	Method for aggregating the indicator across geographic levels.
Sources	Data sources used to compile the indicator.
Aliases	Different names/aliases for the indicator separated by semicolons.
Alternate Identifiers	Any other identifiers used for the indicator in source databases.

Table 3: Mapping Between WDI Criteria Dimensions and World Bank Data Quality Policy Principles

Area	Dimension	Data Quality Policy Principle
Easy to Use	Accessible	Access, Dissemination, and Storage (h)
	Understandable	Transparency (d)
	Interoperable	Inter-operability (l)
	Impartial	Impartiality and Independence (a)
Trusted & Relevant	Confidentiality	Responsible Data Management (b)
	Protected	
	Development	Relevance (e)
	Relevance	
Adequate Coverage	Complete	Efficient Data Collection (i)
	Frequent	Efficient Data Collection (i)
High Quality	Timely	Access, Dissemination, and Storage (h)
	Accurate	Verifiability (c)
	Comparable	Coherence and Comparability (f)
	Granular	Coherence and Comparability (f)
	Not Redundant	Coherence and Comparability (f)