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Sustainable cities and communities – Indicators for city services and quality of life (ISO 37120:2018, IDT)

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Contents

Page

Foreword	xiii
Introduction	xiv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 City indicators	4
5 Economy	5
5.1 City's unemployment rate (core indicator)	5
5.1.1 General.....	5
5.1.2 Core indicator requirements.....	5
5.2 Assessed value of commercial and industrial properties as a percentage of total assessed value of all properties (supporting indicator)	6
5.2.1 General.....	6
5.2.2 Supporting indicator requirements	6
5.3 Percentage of persons in full-time employment (supporting indicator)	6
5.3.1 General.....	6
5.3.2 Supporting indicator requirements	6
5.4 Youth unemployment rate (supporting indicator).....	7
5.4.1 General.....	7
5.4.2 Supporting indicator requirements	7
5.5 Number of businesses per 100 000 population (supporting indicator)	7
5.5.1 General.....	7
5.5.2 Supporting indicator requirements	8
5.5.3 Data sources.....	8
5.6 Number of new patents per 100 000 population per year (supporting indicator)	8
5.6.1 General.....	8
5.6.2 Supporting indicator requirements	8
5.6.3 Data sources.....	8
5.7 Annual number of visitor stays (overnight) per 100 000 population (supporting indicator).....	8
5.7.1 General.....	8
5.7.2 Supporting indicator requirements	9
5.7.3 Data sources.....	9
5.8 Commercial air connectivity (number of non-stop commercial air destinations) (supporting indicator).....	9
5.8.1 General.....	9
5.8.2 Supporting indicator requirements	9
5.8.3 Data sources.....	9
5.9 Economy profile indicators	10
5.9.1 Average household income (USD) (profile indicator).....	10
5.9.2 Annual inflation rate based on the average of the past five years (profile indicator)	10
5.9.3 City product per capita (USD) (profile indicator)	10
6 Education	11
6.1 Percentage of female school-aged population enrolled in schools (core indicator)	11
6.1.1 General.....	11
6.1.2 Core indicator requirements.....	11
6.1.3 Data sources.....	12
6.2 Percentage of students completing primary education: survival rate (core indicator).....	12
6.2.1 General.....	12
6.2.2 Core indicator requirements.....	12
6.2.3 Data sources.....	13

6.3	Percentage of students completing secondary education: survival rate (core indicator).....	13
6.3.1	General.....	13
6.3.2	Core indicator requirements.....	13
6.3.3	Data sources	13
6.4	Primary education student–teacher ratio (core indicator).....	14
6.4.1	General.....	14
6.4.2	Core indicator requirements.....	14
6.4.3	Data sources	14
6.4.4	Data interpretation.....	14
6.5	Percentage of school-aged population enrolled in schools (supporting indicator)	15
6.5.1	General.....	15
6.5.2	Supporting indicator requirements	15
6.6	Number of higher education degrees per 100 000 population (supporting indicator)	15
6.6.1	General.....	15
6.6.2	Supporting indicator requirements	15
6.6.3	Data sources	16
7	Energy	16
7.1	Total end-use energy consumption per capita (GJ/year) (core indicator).....	16
7.1.1	General.....	16
7.1.2	Core indicator requirements.....	16
7.1.3	Data sources	17
7.2	Percentage of total end-use energy derived from renewable sources (core indicator).....	17
7.2.1	General.....	17
7.2.2	Core indicator requirements.....	17
7.2.3	Data sources	17
7.2.4	Data interpretation.....	17
7.3	Percentage of city population with authorized electrical service (residential) (core indicator).....	18
7.3.1	General.....	18
7.3.2	Core indicator requirements.....	18
7.4	Number of gas distribution service connections per 100 000 population (residential) (core indicator).....	18
7.4.1	General.....	18
7.4.2	Core indicator requirements.....	18
7.4.3	Data interpretation.....	19
7.5	Final energy consumption of public buildings per year (GJ/m ²) (core indicator).....	19
7.5.1	General.....	19
7.5.2	Core indicator requirements.....	19
7.6	Electricity consumption of public street lighting per kilometre of lighted street (kWh/year) (supporting indicator).....	19
7.6.1	General.....	19
7.6.2	Supporting indicator requirements	19
7.7	Average annual hours of electrical service interruptions per household (supporting indicator).....	20
7.7.1	General.....	20
7.7.2	Supporting indicator requirements	20
7.7.3	Data interpretation.....	20
7.8	Energy profile indicators.....	20
7.8.1	Heating degree days (profile indicator)	20
7.8.2	Cooling degree days (profile indicator).....	21
8	Environment and climate change	21
8.1	Fine particulate matter (PM _{2.5}) concentration (core indicator).....	21
8.1.1	General.....	21
8.1.2	Core indicator requirements.....	21
8.2	Particulate matter (PM ₁₀) concentration (core indicator).....	22
8.2.1	General.....	22

SS-ISO 37120:2019 (E)

8.2.2	Core indicator requirements.....	22
8.3	Greenhouse gas emissions measured in tonnes per capita (core indicator).....	23
8.3.1	General.....	23
8.3.2	Core indicator requirements.....	23
8.4	Percentage of areas designated for natural protection (supporting indicator).....	24
8.4.1	General.....	24
8.4.2	Supporting indicator requirements.....	24
8.5	NO ₂ (nitrogen dioxide) concentration (supporting indicator).....	24
8.5.1	General.....	24
8.5.2	Supporting indicator requirements.....	25
8.5.3	Data sources.....	25
8.6	SO ₂ (sulfur dioxide) concentration (supporting indicator).....	25
8.6.1	General.....	25
8.6.2	Supporting indicator requirements.....	25
8.6.3	Data sources.....	26
8.7	O ₃ (ozone) concentration (supporting indicator).....	26
8.7.1	General.....	26
8.7.2	Supporting indicator requirements.....	26
8.8	Noise pollution (supporting indicator).....	26
8.8.1	General.....	26
8.8.2	Supporting indicator requirements.....	26
8.8.3	Data sources.....	27
8.9	Percentage change in number of native species (supporting indicator).....	27
8.9.1	General.....	27
8.9.2	Supporting indicator requirements.....	27
8.9.3	Data sources.....	27
9	Finance.....	27
9.1	Debt service ratio (debt service expenditure as a percentage of a city's own-source revenue) (core indicator).....	28
9.1.1	General.....	28
9.1.2	Core indicator requirements.....	28
9.1.3	Data interpretation.....	28
9.2	Capital spending as a percentage of total expenditures (core indicator).....	28
9.2.1	General.....	28
9.2.2	Core indicator requirements.....	29
9.2.3	Data sources.....	29
9.2.4	Data interpretation.....	29
9.3	Own-source revenue as a percentage of total revenues (supporting indicator).....	29
9.3.1	General.....	29
9.3.2	Supporting indicator requirements.....	29
9.4	Tax collected as a percentage of tax billed (supporting indicator).....	30
9.4.1	General.....	30
9.4.2	Supporting indicator requirements.....	30
9.5	Finance profile indicators.....	30
9.5.1	Gross operating budget per capita (USD) (profile indicator).....	30
9.5.2	Gross capital budget per capita (USD) (profile indicator).....	31
10	Governance.....	31
10.1	Women as a percentage of total elected to city-level office (core indicator).....	31
10.1.1	General.....	31
10.1.2	Core indicator requirements.....	31
10.2	Number of convictions for corruption and/or bribery by city officials per 100 000 population (supporting indicator).....	31
10.2.1	General.....	31
10.2.2	Supporting indicator requirements.....	32
10.3	Number of registered voters as a percentage of the voting age population (supporting indicator).....	32
10.3.1	General.....	32

10.3.2	Supporting indicator requirement	32
10.4	Voter participation in last municipal election (as a percentage of registered voters) (supporting indicator)	33
10.4.1	General	33
10.4.2	Supporting indicator requirements	33
10.4.3	Data sources	33
10.4.4	Data interpretation	33
11	Health	33
11.1	Average life expectancy (core indicator)	33
11.1.1	General	33
11.1.2	Core indicator requirements	34
11.2	Number of in-patient hospital beds per 100 000 population (core indicator)	34
11.2.1	General	34
11.2.2	Core indicator requirements	34
11.2.3	Data sources	34
11.3	Number of physicians per 100 000 population (core indicator)	34
11.3.1	General	34
11.3.2	Core indicator requirements	35
11.3.3	Data sources	35
11.4	Under age five mortality per 1 000 live births (core indicator)	35
11.4.1	General	35
11.4.2	Core indicator requirements	35
11.4.3	Data sources	36
11.5	Number of nursing and midwifery personnel per 100 000 population (supporting indicator)	36
11.5.1	General	36
11.5.2	Supporting indicator requirements	36
11.6	Suicide rate per 100 000 population (supporting indicator)	37
11.6.1	General	37
11.6.2	Supporting indicator requirements	37
11.6.3	Data sources	37
12	Housing	37
12.1	Percentage of city population living in inadequate housing (core indicator)	37
12.1.1	General	37
12.1.2	Core indicator requirements	37
12.1.3	Data sources	38
12.2	Percentage of population living in affordable housing (core indicator)	38
12.2.1	General	38
12.2.2	Core indicator requirements	38
12.2.3	Data sources	38
12.3	Number of homeless per 100 000 population (supporting indicator)	38
12.3.1	General	38
12.3.2	Supporting indicator requirements	39
12.4	Percentage of households that exist without registered legal titles (supporting indicator)	39
12.4.1	General	39
12.4.2	Supporting indicator requirements	39
12.5	Housing profile indicators	39
12.5.1	Total number of households (profile indicator)	39
12.5.2	Persons per unit (profile indicator)	40
12.5.3	Vacancy rate (residential) (profile indicator)	40
12.5.4	Living space (square metres) per person (profile indicator)	41
12.5.5	Secondary residence rate (profile indicator)	41
12.5.6	Residential rental dwelling units as a percentage of total dwelling units (profile indicator)	41
13	Population and social conditions	42

13.1	Percentage of city population living below the international poverty line (core indicator).....	42
13.1.1	General.....	42
13.1.2	Core indicator requirements.....	42
13.1.3	Data interpretation.....	42
13.2	Percentage of city population living below the national poverty line (supporting indicator).....	42
13.2.1	General.....	42
13.2.2	Supporting indicator requirements.....	43
13.2.3	Data interpretation.....	43
13.3	Gini coefficient of inequality (supporting indicator).....	43
13.3.1	General.....	43
13.3.2	Supporting indicator requirements.....	43
13.3.3	Data sources.....	44
13.4	Population and social conditions profile indicators.....	44
13.4.1	Annual population change (profile indicator).....	44
13.4.2	Percentage of population that are foreign born (profile indicator).....	45
13.4.3	Population demographics (profile indicator).....	45
13.4.4	Percentage of population that are new immigrants (profile indicator).....	46
13.4.5	Percentage of city population that are non-citizens (profile indicator).....	46
13.4.6	Number of university students per 100 000 population (profile indicator).....	46
14	Recreation.....	47
14.1	Square metres of public indoor recreation space per capita (supporting indicator).....	47
14.1.1	General.....	47
14.1.2	Supporting indicator requirements.....	47
14.1.3	Data sources.....	47
14.2	Square metres of public outdoor recreation space per capita (supporting indicator).....	48
14.2.1	General.....	48
14.2.2	Supporting indicator requirements.....	48
14.2.3	Data sources.....	48
15	Safety.....	49
15.1	Number of firefighters per 100 000 population (core indicator).....	49
15.1.1	General.....	49
15.1.2	Core indicator requirements.....	49
15.2	Number of fire-related deaths per 100 000 population (core indicator).....	49
15.2.1	General.....	49
15.2.2	Core indicator requirements.....	49
15.2.3	Data sources.....	50
15.3	Number of natural-hazard-related deaths per 100 000 population (core indicator).....	50
15.3.1	General.....	50
15.3.2	Core indicator requirements.....	50
15.3.3	Data sources.....	50
15.3.4	Data interpretation.....	50
15.4	Number of police officers per 100 000 population (core indicator).....	50
15.4.1	General.....	50
15.4.2	Core indicator requirements.....	51
15.4.3	Data sources.....	51
15.5	Number of homicides per 100 000 population (core indicator).....	51
15.5.1	General.....	51
15.5.2	Core indicator requirements.....	51
15.5.3	Data sources.....	51
15.6	Number of volunteer and part-time firefighters per 100 000 population (supporting indicator).....	52
15.6.1	General.....	52
15.6.2	Supporting indicator requirements.....	52
15.7	Response time for emergency response services from initial call (supporting indicator).....	52

15.7.1	General.....	52
15.7.2	Supporting indicator requirements.....	52
15.8	Crimes against property per 100 000 population (supporting indicator).....	53
15.8.1	General.....	53
15.8.2	Supporting indicator requirements.....	53
15.9	Number of deaths caused by industrial accidents per 100 000 population (supporting indicator).....	53
15.9.1	General.....	53
15.9.2	Supporting indicator requirements.....	53
15.10	Number of violent crimes against women per 100 000 population (supporting indicator).....	54
15.10.1	General.....	54
15.10.2	Supporting indicator requirements.....	54
15.10.3	Data sources.....	54
16	Solid waste.....	55
16.1	Percentage of city population with regular solid waste collection (residential) (core indicator).....	55
16.1.1	General.....	55
16.1.2	Core indicator requirements.....	55
16.1.3	Data sources.....	55
16.1.4	Data interpretation.....	55
16.2	Total collected municipal solid waste per capita (core indicator).....	56
16.2.1	General.....	56
16.2.2	Core indicator requirements.....	56
16.2.3	Data interpretation.....	56
16.3	Percentage of the city's solid waste that is recycled (core indicator).....	57
16.3.1	General.....	57
16.3.2	Core indicator requirements.....	57
16.3.3	Data sources.....	57
16.4	Percentage of the city's solid waste that is disposed of in a sanitary landfill (core indicator).....	57
16.4.1	General.....	57
16.4.2	Core indicator requirements.....	58
16.4.3	Data sources.....	58
16.5	Percentage of the city's solid waste that is treated in energy-from-waste plants (core indicator).....	58
16.5.1	General.....	58
16.5.2	Core indicator requirements.....	58
16.5.3	Data sources.....	59
16.6	Percentage of the city's solid waste that is biologically treated and used as compost or biogas (supporting indicator).....	59
16.6.1	General.....	59
16.6.2	Supporting indicator requirements.....	59
16.6.3	Data sources.....	59
16.7	Percentage of the city's solid waste that is disposed of in an open dump (supporting indicator).....	60
16.7.1	General.....	60
16.7.2	Supporting indicator requirements.....	60
16.7.3	Data sources.....	60
16.8	Percentage of the city's solid waste that is disposed of by other means (supporting indicator).....	60
16.8.1	General.....	60
16.8.2	Supporting indicator requirements.....	60
16.8.3	Data sources.....	61
16.9	Hazardous waste generation per capita (tonnes) (supporting indicator).....	61
16.9.1	General.....	61
16.9.2	Supporting indicator requirements.....	61
16.9.3	Data sources.....	62

16.10	Percentage of the city’s hazardous waste that is recycled (supporting indicator)	62
16.10.1	General.....	62
16.10.2	Supporting indicator requirement	62
16.10.3	Data sources.....	62
17	Sport and culture.....	63
17.1	Number of cultural institutions and sporting facilities per 100 000 population (core indicator).....	63
17.1.1	General.....	63
17.1.2	Core indicator requirements.....	63
17.2	Percentage of municipal budget allocated to cultural and sporting facilities (supporting indicator).....	63
17.2.1	General.....	63
17.2.2	Supporting indicator requirements	64
17.3	Annual number of cultural events per 100 000 population (e.g. exhibitions, festivals, concerts) (supporting indicator).....	64
17.3.1	General.....	64
17.3.2	Supporting indicator requirements	64
18	Telecommunication.....	64
18.1	Number of internet connections per 100 000 population (supporting indicator)	64
18.1.1	General.....	64
18.1.2	Supporting indicator requirements	65
18.1.3	Data sources.....	65
18.2	Number of mobile phone connections per 100 000 population (supporting indicator).....	65
18.2.1	General.....	65
18.2.2	Supporting indicator requirements	65
18.2.3	Data sources.....	65
19	Transportation.....	66
19.1	Kilometres of public transport system per 100 000 population (core indicator).....	66
19.1.1	General.....	66
19.1.2	Core indicator requirements.....	66
19.1.3	Data sources.....	66
19.2	Annual number of public transport trips per capita (core indicator)	67
19.2.1	General.....	67
19.2.2	Core indicator requirements.....	67
19.2.3	Data sources.....	67
19.3	Percentage of commuters using a travel mode to work other than a personal vehicle (supporting indicator)	68
19.3.1	General.....	68
19.3.2	Supporting indicator requirements	68
19.3.3	Data sources.....	68
19.4	Kilometres of bicycle paths and lanes per 100 000 population (supporting indicator)	69
19.4.1	General.....	69
19.4.2	Supporting indicator requirements	69
19.5	Transportation deaths per 100 000 population (supporting indicator).....	69
19.5.1	General.....	69
19.5.2	Supporting indicator requirements	69
19.6	Percentage of population living within 0,5 km of public transit running at least every 20 min during peak periods (supporting indicator)	70
19.6.1	General.....	70
19.6.2	Supporting indicator requirements	70
19.6.3	Data sources.....	70
19.7	Average commute time (supporting indicator).....	71
19.7.1	General.....	71
19.7.2	Supporting indicator requirements	71
19.7.3	Data sources.....	71
19.8	Transportation profile indicators.....	71

19.8.1	Number of personal automobiles per capita (profile indicator).....	71
19.8.2	Number of two-wheeled motorized vehicles per capita (profile indicator)	71
20	Urban/local agriculture and food security.....	72
20.1	Total urban agricultural area per 100 000 population (core indicator).....	72
20.1.1	General.....	72
20.1.2	Core indicator requirements.....	72
20.2	Amount of food produced locally as a percentage of total food supplied to the city (supporting indicator).....	73
20.2.1	General.....	73
20.2.2	Supporting indicator requirements	73
20.2.3	Data sources	73
20.3	Percentage of city population undernourished (supporting indicator)	73
20.3.1	General.....	73
20.3.2	Supporting indicator requirements	74
20.3.3	Data sources	74
20.4	Percentage of city population that is overweight or obese — Body Mass Index (BMI) (supporting indicator)	74
20.4.1	General.....	74
20.4.2	Supporting indicator requirements	74
21	Urban planning	76
21.1	Green area (hectares) per 100 000 population (core indicator)	76
21.1.1	General.....	76
21.1.2	Core indicator requirements.....	76
21.1.3	Data sources	76
21.2	Areal size of informal settlements as a percentage of city area (supporting indicator).....	76
21.2.1	General.....	76
21.2.2	Supporting indicator requirements	76
21.2.3	Data sources	77
21.3	Jobs–housing ratio (supporting indicator).....	77
21.3.1	General.....	77
21.3.2	Supporting indicator requirements	77
21.4	Basic service proximity (supporting indicator)	78
21.4.1	General.....	78
21.4.2	Supporting indicator requirements	78
21.5	Urban planning profile indicators	79
21.5.1	Population density (per square kilometre) (profile indicator).....	79
21.5.2	Number of trees per 100 000 population (profile indicator).....	79
21.5.3	Built-up density (profile indicator).....	79
22	Wastewater.....	80
22.1	Percentage of city population served by wastewater collection (core indicator)	80
22.1.1	General.....	80
22.1.2	Core indicator requirements.....	80
22.1.3	Data sources	80
22.2	Percentage of city’s wastewater receiving centralized treatment (core indicator).....	80
22.2.1	General.....	80
22.2.2	Core indicator requirements.....	81
22.2.3	Data sources	81
22.3	Percentage of population with access to improved sanitation (core indicator)	81
22.3.1	General.....	81
22.3.2	Core indicator requirements.....	82
22.4	Compliance rate of wastewater treatment (supporting indicator).....	82
22.4.1	General.....	82
22.4.2	Supporting indicator requirements	82
23	Water	83
23.1	Percentage of city population with potable water supply service (core indicator).....	83
23.1.1	General.....	83

SS-ISO 37120:2019 (E)

23.1.2	Core indicator requirements.....	83
23.1.3	Data sources.....	83
23.2	Percentage of city population with sustainable access to an improved water source (core indicator).....	84
23.2.1	General.....	84
23.2.2	Core indicator requirements.....	84
23.3	Total domestic water consumption per capita (litres/day) (core indicator).....	84
23.3.1	General.....	84
23.3.2	Core indicator requirements.....	84
23.3.3	Data sources.....	85
23.3.4	Data interpretation.....	85
23.4	Compliance rate of drinking water quality (core indicator).....	85
23.4.1	General.....	85
23.4.2	Core indicator requirements.....	85
23.5	Total water consumption per capita (litres/day) (supporting indicator).....	86
23.5.1	General.....	86
23.5.2	Supporting indicator requirements.....	86
23.5.3	Data sources.....	86
23.6	Average annual hours of water service interruptions per household (supporting indicator).....	86
23.6.1	General.....	86
23.6.2	Supporting indicator requirements.....	86
23.6.3	Data interpretation.....	87
23.7	Percentage of water loss (unaccounted for water) (supporting indicator).....	87
23.7.1	General.....	87
23.7.2	Supporting indicator requirements.....	87
23.7.3	Data sources.....	87
24	Reporting and record maintenance.....	87
Annex A	(informative) City indicators.....	88
Annex B	(informative) Mapping of indicators to ISO 37101 issues and purposes.....	93
Annex C	(informative) Mapping of indicators to United Nations Sustainable Development Goals (SDGs).....	109
Annex D	(informative) Additional profile indicators.....	117
Bibliography	118

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 268, *Sustainable cities and communities*.

This second edition cancels and replaces the first edition (ISO 37120:2014), which has been technically revised.

In the development of this document, ISO Guide 82 has been taken into account in addressing sustainability issues.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Cities need indicators to measure their performance. Existing indicators at the local level are often not standardized, consistent, or comparable over time or across cities. This document is focused on city services and quality of life as a contribution to the sustainability of the city.

As part of a new series of International Standards being developed for a holistic and integrated approach to sustainable development, that includes indicators for city services and quality of life, indicators for smart cities and indicators for resilient cities, this set of standardized indicators provides a uniform approach to what is measured, and how that measurement is to be undertaken. As a list, it does not provide a value judgement, threshold or target numerical value for the indicators.

Conformance with this document does not confer a status in this regard. A city which conforms to this document in regards to measurement of indicators for city services and quality of life may only claim conformance to that effect.

These indicators can be used to track and monitor progress on city performance. In order to achieve sustainable development, the whole city system needs to be taken into consideration. Planning for future needs should take into consideration current use and efficiency of resources in order to better plan for tomorrow.

The indicators and associated test methods in this document have been developed in order to help cities:

- a) measure performance management of city services and quality of life over time;
- b) learn from one another by allowing comparison across a wide range of performance measures; and,
- c) support policy development and priority setting.

NOTE It is acknowledged that cities might not have direct influence or control over factors governing some of these indicators, but the reporting is important for meaningful comparison and provides a general indication of service delivery and quality of life within a city.

The indicators in this document have been selected to make reporting as simple and inexpensive as possible, and therefore reflect an initial platform for reporting. Further development of indicators to support smartness (ISO 37122¹⁾) and resilience (ISO 37123²⁾) in cities is ongoing in TC 268. This document also includes a third category of indicators – profile indicators – that are recommended to provide basic statistics and background information to help cities conduct peer comparisons. Additional profile indicators are listed in [Annex D](#).

Maintaining, enhancing and accelerating progress towards improved city services and quality of life is also fundamental to the definitions of both smart cities and resilient cities. This document is intended to be implemented in conjunction with ISO 37122 and ISO 37123 to measure progress towards smart cities and resilient cities, respectively. The relationship between the family of standards is presented in [Figure 1](#).

1) Under preparation. Stage at the time of publication: ISO/DIS 37122:2018.

2) Under preparation. Stage at the time of publication: ISO/CD 37123:2018.

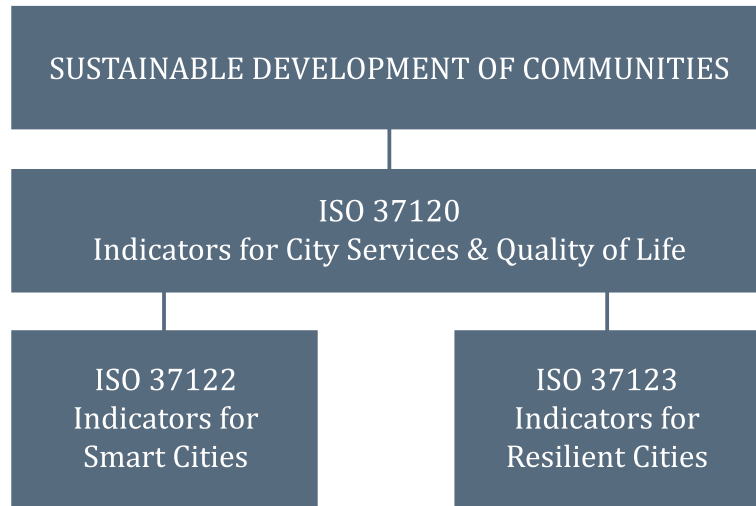


Figure 1 — Sustainable development of communities — Relationship between the family of city indicators standards

The indicators are structured around themes. Recognizing the differences in resources and capabilities of cities worldwide, the overall set of indicators for city performance has been divided into “core” indicators (those implementing this document shall follow) and “supporting” indicators (those implementing this document should follow). Both core and supporting indicators are listed in [Annex A, Table A.1](#).

In this document, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

Sustainable cities and communities — Indicators for city services and quality of life

1 Scope

This document defines and establishes methodologies for a set of indicators to steer and measure the performance of city services and quality of life. It follows the principles set out in ISO 37101 and can be used in conjunction with ISO 37101 and other strategic frameworks.

This document is applicable to any city, municipality or local government that undertakes to measure its performance in a comparable and verifiable manner, irrespective of size and location.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content can be used in conjunction with this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 37101, *Sustainable development in communities — Management system for sustainable development — Requirements with guidance for use*

ISO 1996-2, *Acoustics — Description, measurement and assessment of environmental noise — Part 2: Determination of sound pressure levels*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 37101 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

city

municipality

local government

urban community falling under a specific administrative boundary

3.2

city population

number of residents living in a particular city or municipality, typically determined by census every 5 or 10 years

Note 1 to entry: Census populations exclude temporary residents but include residents temporarily absent.

3.3

community

group of people with an arrangement of responsibilities, activities and relationships

Note 1 to entry: In many, but not all, contexts, a community has a defined geographical boundary.

Note 2 to entry: A city is a type of community.

[SOURCE: ISO 37101:2016, 3.4, ISO/TS 37151:2015, 3.1]

SS-ISO 37120:2019 (E)

3.4 indicator

quantitative, qualitative or descriptive measure

[SOURCE: ISO 15392:2008, 3.14, modified – Note 1 to entry added.]

Note 1 to entry: There are three types of indicators in this document:

- a) core indicators: indicators that are required to demonstrate performance in the delivery of city services and quality of life.
- b) supporting indicators: indicators that are recommended to demonstrate performance in the delivery of city services and quality of life. These indicators can be selected according to city objectives.
- c) profile indicators: indicators that are recommended to provide basic statistics and background information to help cities determine which cities are of interest for peer comparisons. Profile indicators are used as an informative reference.

3.5 full-time enrolment

enrolment in an education programme whose intended study load amounts to at least 75 % of the normal full-time annual study load

[SOURCE: UNESCO, 2011]

3.6 labour force workforce

all employable persons within a specified geographic area

Note 1 to entry: This typically includes all working-age adults between the ages of 15 and 64, but the specific age will vary by country.

3.7 natural hazard

geological or meteorological phenomena that can cause damage to physical infrastructure or loss of life in cities

3.8 part-time enrolment

enrolment in school for at least every half-day in a week over the entire school year or equivalent on a weekly basis

EXAMPLE A student is counted as enrolled part-time if he/she is enrolled in school for every half-day in a week, but is not counted as enrolled if he/she is only enrolled for 0,25 of a day.

3.9 primary education

elementary school

education that is considered to be the first stage of “basic education”

Note 1 to entry: Primary education typically covers six years of full-time schooling with the legal age of entrance normally being not younger than 5 years or older than 7 years. Primary education typically lasts until ages 10–12. Primary education refers to children aged 5–12 years or 1st grade through to 5th or 6th grade, as defined by local education systems.

[SOURCE: UNESCO Institute for Statistics, UOE data collection on education systems, [10.1](#)]

3.10

secondary education

education that is considered to be the second stage of basic education and marks the end of compulsory education where it exists

Note 1 to entry: Students usually enter between the ages of 10 and 13 (age 12 being the most common). Secondary education usually ends 12 or 13 years after the beginning of primary education (or around age 18). However, this can range from 11 to 14 years after beginning school (or around age 17 to 20). Secondary education also refers to 6th grade (or 7th grade) to 12th grade, as defined by local education systems.

3.11

tertiary education

education provided by universities and other higher education institutions following secondary education

3.12

hazardous waste

waste that is potentially harmful to human beings, property or the environment

[SOURCE: ISO 18113-1:2009, 3.22, modified – Examples and Notes removed.]

3.13

solid waste

non-soluble, discarded solid materials, including sewage sludge, municipal garbage, industrial wastes, agricultural refuse, demolition wastes and mining residues

3.14

vascular plant

tracheophyte

plant that can internally transport water and food

3.15

per 100 000 population

in 100 000 of the city's population

Note 1 to entry: The choice of 100 000 population was made to permit cities of different sizes to be able to compare results with each other relatively easily and effectively. It should be noted that in some countries the statistic per 1 000 capita is collected and a slight mathematical adjustment may be necessary to reflect this difference to obtain an accurate comparison. The measure of per 1 000 population might be a more applicable measure for small cities.

3.16

United States dollar

USD

national currency for the United States of America

Note 1 to entry: It is a benchmark currency and is used in many countries worldwide. To make the conversion from USD to local currency, use the rates posted by the US Federal Reserve Bank: <https://www.newyorkfed.org/markets/foreignex.html>. Make note of the rate and date of conversion.

3.17

public building

government owned or leased building that functions as a municipal and administrative office, library, recreation centre, hospital, school, fire station or police station

Note 1 to entry: Ownership of buildings (public or private) is variously defined according to region and political system. The restrictive definition used here permits global comparability across cities.