


WCCD

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

Performance Indicators

Theme	Core indicator	Supporting indicator
Economy (Clause 5)	<ul style="list-style-type: none"> City's unemployment rate 	<ul style="list-style-type: none"> Assessed value of commercial and industrial properties as a percentage of total assessed value of all properties. Percentage of persons in full-time employment Youth unemployment rate Number of businesses per 100 000 population Number of new patents per 100 000 population per year Annual number of visitor stays (overnight) per 100 000 population Commercial air connectivity (number of non-stop commercial air destinations)
Education (Clause 6)	<ul style="list-style-type: none"> Percentage of female school-aged population enrolled in school Percentage of students completing primary education: survival rate Percentage of students completing secondary education: survival rate Primary education student-teacher ratio 	<ul style="list-style-type: none"> Percentage of school-aged population enrolled in school Number of higher education degrees per 100 000 population
Energy (Clause 7)	<ul style="list-style-type: none"> Total end-use energy consumption per capital (GJ/year) Percentage of total end-use derived from renewable sources Percentage of city population with authorized electrical service (residential) Number of gas distribution service connections per 100 000 population (residential) 	<ul style="list-style-type: none"> Electricity consumption of public street lighting per kilometre of lighted street (kWh/year) Average annual hours of electrical service interruptions per household



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	<ul style="list-style-type: none"> • Final energy consumption of public buildings per year (GJ/m²) 	
Environment and Climate Change (Clause 8)	<ul style="list-style-type: none"> • Fine Particulate Matter (PM2.5) concentration • Particulate Matter (PM10) concentration • Greenhouse gas emissions measured in tonnes per capita 	<ul style="list-style-type: none"> • Percentage of areas designated for natural protection • NO₂ (nitrogen dioxide) concentration • SO₂ (sulphur dioxide) concentration • O₃ (ozone) concentration • Noise pollution • Percentage change in number of native species
Finance (Clause 9)	<ul style="list-style-type: none"> • Debt service ratio (debt service expenditure as a percentage of a city's own-source revenue) • Capital spending as a percentage of total expenditures 	<ul style="list-style-type: none"> • Own-source revenue as a percentage of total revenues • Tax collected as percentage of tax billed
Governance (Clause 10)	<ul style="list-style-type: none"> • Women as a percentage of total elected to city-level office 	<ul style="list-style-type: none"> • Number of convictions for corruption and/ or bribery by city officials per 100 000 population • Number of registered voters as a percentage of the voting age population • Voter participation in last municipal election (as a percentage of registered voters)



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Health (Clause 11)	<ul style="list-style-type: none"> • Average life expectancy • Number of in-patient hospital beds per 100 000 population • Number of physicians per 100 000 population • Under age five mortality per 1 000 live births 	<ul style="list-style-type: none"> • Number of nursing and midwifery personnel per 100 000 population • Suicide rate per 100 000 population
Housing (Clause 12)	<ul style="list-style-type: none"> • Percentage of city population living in inadequate housing • Percentage of population living in affordable housing 	<ul style="list-style-type: none"> • Number of homeless per 100 000 population • Percentage of households that exist without registered legal title
Population and social conditions (Clause 13)	<ul style="list-style-type: none"> • Percentage of city population living below the international poverty line 	<ul style="list-style-type: none"> • Percentage of city population living below the national poverty line • Gini coefficient of inequality
Recreation (Clause 14)		<ul style="list-style-type: none"> • Square metres of public indoor recreation space per capita • Square metres of public outdoor recreation space per capita
Safety (Clause 15)	<ul style="list-style-type: none"> • Number of firefighters per 100 000 population • Number of fire-related deaths per 100 000 population • Number of natural-hazard-related deaths per 100 000 population • Number of police officers per 100 000 population • Number of homicides per 100 000 population 	<ul style="list-style-type: none"> • Number of volunteer and part-time firefighters per 100 000 population • Response time for emergency response services from initial call • Crimes against property per 100 000 population • Number of deaths caused by industrial accidents per 100 000 population • Number of violent crimes against women per 100 000 population



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Solid waste (Clause 16)	<ul style="list-style-type: none"> • Percentage of city population with regular solid waste collection (residential) • Total collected municipal solid waste per capita • Percentage of the city's solid waste that is recycled • Percentage of the city's solid waste that is disposed of in a sanitary landfill • Percentage of the city's solid waste that is treated in energy-from-waste plants 	<ul style="list-style-type: none"> • Percentage of city's solid waste that is biologically treated and used as compost or biogas • Percentage of the city's solid waste that is disposed of in an open dump • Percentage of the city's solid waste that is disposed of by other means • Hazardous waste generation per capita • Percentage of city's hazardous waste that is recycled
Sport and culture (Clause 17)	<ul style="list-style-type: none"> • Number of cultural institutions and sporting facilities per 100 000 population 	<ul style="list-style-type: none"> • Percentage of municipal budget allocated to cultural and sporting facilities • Annual number of cultural events per 100 000 population (e.g. exhibitions, festivals, concerts)
Telecommunication (Clause 18)		<ul style="list-style-type: none"> • Number of internet connections per 100 000 population • Number of mobile phone connections per 100 000 population



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Transportation (Clause 19)	<ul style="list-style-type: none"> • Kilometres of public transport system per 100 000 population • Annual number of public transport trips per capita 	<ul style="list-style-type: none"> • Percentage of commuters using a travel mode other than a personal vehicle • Kilometres of bicycle paths and lanes per 100 000 population • Transportation deaths per 100 000 population • Percentage of population living within 0,5 km of public transit running at least every 20 min during peak periods • Average commute time
Urban/local agriculture and food security (Clause 20)	<ul style="list-style-type: none"> • Total urban agricultural area per 100 000 population 	<ul style="list-style-type: none"> • Amount of food produced locally as a percentage of total food supplied to the city • Percentage of city population undernourished • Percentage of city population that is overweight or obese – Body Mass Index (BMI)
Urban planning (Clause 21)	<ul style="list-style-type: none"> • Green area (hectares) per 100 000 population 	<ul style="list-style-type: none"> • Areal size of informal settlements as a percentage of city area • Jobs-housing ratio • Basic service proximity
Wastewater (Clause 22)	<ul style="list-style-type: none"> • Percentage of city population served by wastewater collection • Percentage of city's wastewater receiving centralized treatment • Percentage of population with access to improved sanitation 	<ul style="list-style-type: none"> • Compliance rate of wastewater treatment



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Water (Clause 23)	<ul style="list-style-type: none">• Percentage of city population with potable water supply service• Percentage of city population with sustainable access to an improved water source• Total domestic water consumption per capita (litres/day)• Compliance rate of drinking water quality	<ul style="list-style-type: none">• Total water consumption per capita (litres/day)• Average annual hours of water service interruptions per household• Percentage of water loss (unaccounted for water)



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Profile Indicators

The list of profile indicators provide basic statistics and background information to help cities determine which cities are of interest for comparisons are shown below and are not included as part of this draft standard. Definitions and methodologies for the profile indicators are now under-development.

Theme	Indicator
Economy	Average household income (USD)
	Annual inflation rate based on average of last 5 years
	City product per capita (USD)
Energy	Heating degree days
	Cooling degree days
Finance	Gross operating budget per capita (USD)
	Gross capital budget per capita (USD)
Housing	Total number of households
	Persons per unit
	Vacancy rate (residential)
	Living space (square metres) per person
	Secondary residence rate
	Residential rental dwelling units as a percentage of total dwellings units
Population and social conditions	Annual Population change
	Percentage of population that are foreign born
	Population demographics
	Percentage of population that are new immigrants
	Percentage of city population that are non-citizens
	Number of university students per 100 000 population
Transportation	Number of personal automobiles per capita
	Number of two-wheeled motorized vehicles per capita
Urban planning	Population density (per kilometre)
	Number of trees per 100 000 population
	Built-up density