



# **Istanbul Environment Friendly City Award**

## **Framework of Assessment Indicators at City Level**

## **Introduction**

The development of this Framework of Assessment Indicators at City Level has been supported by the CESBA MED InterregMed Project and the international initiative for a Sustainable Built Environment (iiSBE Italy).

The Framework is composed of 55 assessment criteria organised in 4 main categories:

A – Nature and Biodiversity Protection (5)

B – Built Environment (22)

C – Social, Economic and Cultural Sustainability (15)

D – Policy and Governance (13)

34 criteria are associated to a quantitative indicator, 20 criteria are qualitative.

28 criteria are MAIN CRITERIA/INDICATORS (M), which are considered as mandatory: it is highly recommended to provide quantitative information/data for those criteria. That means that participants shall evaluate them and report the results in the Application Form, as much as possible. However, if the applicant city does not have the necessary data to populate the corresponding indicators, it is allowed to provide short narrative texts with qualitative information in the “Evidence of the measures/progress achieved in the last 5 years” text box (see application form).

27 criteria are RECOMMENDED. Participants can decide which ones to include in the Application Form.

A “Calculation Guide” for the quantitative criteria is provided to explain the assessment methods.

CODE	CRITERION	INDICATOR	METRIC	N
<b>A</b>	<b>Nature and Biodiversity Protection</b>			<b>5</b>
<b>A1</b>	<b>Climate Change</b>			<b>2</b>
<b>M</b>	A1.1	Greenhouse gas emissions	Total amount of greenhouse gases in tonnes (equivalent carbon dioxide units) generated over a calendar year divided by the current city population	Tons CO2 eq. / inhabitant
	A1.2	Resilience of natural systems and/or Urban resilience	Measures to enhance or maintain the resilience of natural systems (against climate change impacts and/or measures to improve the urban resilience to natural and human induced risks based on prevention, preparedness and response	Qualitative
<b>A2</b>	<b>Ecosystem protection</b>			<b>1</b>
<b>M</b>	A2.1	Protection of coastal and marine ecosystems, including protected areas	Measures to protect coastal and marine ecosystems, incl. by establishing and managing marine and coastal protected areas	Qualitative
<b>A3</b>	<b>Sustainable-use of resources</b>			<b>2</b>
	A3.1	Efficiency in water use	Volume of water supplied minus the volume of utilized water divided by the total volume of water supplied	%
<b>M</b>	A3.2	Use of marine, coastal and land-based resources	Measures for the sustainable use of marine, coastal and land-based resources	Qualitative
<b>B</b>	<b>Built environment</b>			<b>22</b>
<b>B1</b>	<b>Resilient coast</b>			<b>2</b>
<b>M</b>	B1.1	Flood management and coastal protection measures	Existence of flood management and coastal protection measures, including nature-based solutions	Qualitative
	B1.2	Setback zone	Area of built-up land in the setback zone/ <a href="#">total area of 100m setback zone</a>	%
<b>B2</b>	<b>Sustainable land use</b>			<b>3</b>
<b>M</b>	B2.1	Urban compactness	Built-up land area per inhabitant	m2/inhabitant
	B2.2	Conservation of land	Area of undeveloped land with ecological or agricultural value / area of the city	%
	B2.3	Permeability of land	Area of permeable surfaces on total city area	%
<b>B3</b>	<b>Local transport</b>			<b>3</b>
<b>M</b>	B3.1	Availability of [high capacity] public transport systems	Sum of the kilometres of [high capacity] public transport systems operating within the city divided by	Km/100,000 inhabitants

			one 100, 000th of the city's total population	
	B3.2	Number of personal automobiles per capita	Total number of registered personal automobiles in a city divided by the total city population	n/inhabitant
	B3.3	Extent and connectivity of bicycle paths	Aggregate length of bicycle paths in the city per 100,000 residents.	Km/100,000 inhabitants
<b>B4</b>	<b>Pollution and waste</b>			<b>6</b>
<b>M</b>	B4.1	Municipal solid waste collection	Total municipal solid waste produced in the municipality per person	Tons/inhabitant
	B4.2	Solid Waste Recycling	Total amount of the city's solid waste that is recycled in tonnes divided by the total amount of solid waste produced in the city in tonnes	%
<b>M</b>	B4.3	Water treatment	Total amount of the city's wastewater that has undergone a primary treatment divided by the total amount of wastewater produced in the city and collected	%
	B4.4	Fine particulate matter (PM2.5) concentration	Annual mean concentration of PM2,5	µg/m3
	B4.5	Particulate matter (PM10) concentration	Annual mean concentration of PM10	µg/m3
	B4.6	Industrial solid waste reduction	Annual industrial solid waste reduction by the manufacturing industry	Tons/year
<b>B5</b>	<b>Water</b>			<b>1</b>
<b>M</b>	B5.1	Total water consumption	Total amount of the city's water consumption in liters per day divided by the total city population	liters/day/person
<b>B6</b>	<b>Energy Efficiency</b>			<b>3</b>
	B6.1	Thermal energy consumed by residential buildings	Total final thermal energy consumption for residential buildings operations in kilowatt hours divided by the total population of the city	kWh/inhabitant/year
<b>M</b>	B6.2	Electrical energy consumed by residential buildings	Total final electric energy consumption for residential buildings operations in kilowatt hours divided by the total population of the city	kWh/inhabitant/year
	B6.3	Share of renewable energy relative to city's total electric energy consumption	Total consumption of electricity generated from renewable sources divided by city's total electric energy consumption	%
<b>B7</b>	<b>Green settlements, building materials and technological systems</b>			<b>4</b>
	B7.1	Green urban areas	Proportion of all vegetated areas within the city boundaries in relation to the total area	%

<b>M</b>	B7.2	Green areas in relation to the city population	Total area of green in the city divided by one 100,000th of the city's total population	h/100,000 inhabitants	
	B7.3	Green roofs	Aggregate area of building roofs covered with vegetated material divided by the total city's roofs area	%	
	B7.4	Improvement of the building stock	Measures for the construction of green buildings or retrofit of existing buildings	Qualitative	
<b>C</b>	<b>Social, Economic and Cultural Sustainability</b>				<b>15</b>
<b>C1</b>	<b>Integration and solidarity</b>				<b>1</b>
	C1.1	Mixed income neighbourhoods	Measures to promote mixed income neighbourhoods	Qualitative	
<b>C2</b>	<b>Local cultural values and traditions</b>				<b>1</b>
	C2.1	Historical buildings preservation	Efforts/budget allocation for renovation/retrofitting/rehabilitation of historical buildings and settlements (e.g. projects of rehabilitation of historic centres)	Qualitative	
<b>C3</b>	<b>Promoting Green Economy</b>				<b>2</b>
	C3.1	Eco-innovation, sustainable employment and circular economy	Measures to support eco-innovation, sustainable employment and circular economy	Qualitative	
	C3.2	Women entrepreneurship	Measures to promote women entrepreneurship	Qualitative	
<b>C4</b>	<b>Labour force</b>				<b>2</b>
<b>M</b>	C4.1	City's unemployment rate	Number of working-age city residents who during the survey reference period were not in paid employment or self-employment, but available for work, and seeking work divided by the total labour force	%	
<b>M</b>	C4.2	Population living in poverty	Number of people living below the poverty threshold divided by the total current population of the city	%	
<b>C5</b>	<b>Economic Performance</b>				<b>3</b>
<b>M</b>	C5.1	GDP per capita	GDP per inhabitant	Euro/inhabitant	
	C5.2	GDP energy intensity	Total primary energy consumption divided by GDP	MJ/euro	
	C5.3	GDP carbon intensity	City's total Co2 eq. Emissions divided by GDP	Kg CO2/euro	
<b>C6</b>	<b>Global Appeal</b>				<b>1</b>
	C6.1	Visitors	Number of visitors from abroad and domestically	n/1,000 inhabitants	
<b>C7</b>	<b>Safety</b>				<b>1</b>

	C7.1	Fire safety	Total number of paid full-time firefighters divided by one 100,000th of the city population	n/100,000 inhabitants	
<b>C8</b>	<b>Education</b>				<b>2</b>
<b>M</b>	C8.1	Female school-aged population	Number of female school-aged population enrolled at primary and secondary levels in public and private schools divided by the total number of female school-aged population	%	
<b>M</b>	C8.2	Students completing secondary education	Total number of students belonging to a school-cohort who complete the final grade of secondary education divided by the total number of students belonging to a school-cohort	%	
<b>C9</b>	<b>Health</b>				<b>1</b>
<b>M</b>	C9.1	Accessibility to in-patient hospital beds	Total number of in-patient public and private hospital beds divided by one 100,000th of the city's total population	n/100,000 inhabitants	
<b>C10</b>	<b>Shelter</b>				<b>1</b>
<b>M</b>	C10.1	City population living in slums	Number of people living in slums divided by the city population	%	
<b>D</b>	<b>Policy and Governance</b>				<b>13</b>
<b>D1</b>	<b>Policy</b>				<b>1</b>
<b>M</b>	D1.1	Environmental policies, strategies and actions plans for sustainability, including climate change mitigation and adaptation strategy	Existence (with allocated budget) of environmental policy, strategies and action plans for sustainability, incl. climate change mitigation and adaptation strategy	Qualitative	
<b>D2</b>	<b>Planning and management</b>				<b>3</b>
<b>M</b>	D2.1	Strategies for sustainable mobility	Adoption of strategies for sustainable mobility (with budget allocation) (e.g. integrated public transport systems; promotion of public transport, bicycles)	Qualitative	
<b>M</b>	D2.2	Pollution prevention action plans	Adoption of pollution prevention action plans for water, waste, air, noise (with budget allocation)	Qualitative	
<b>M</b>	D2.3	Coastal management plans	Adoption of coastal management plan (with budget allocation)	Qualitative	
<b>D3</b>	<b>Institution</b>				<b>3</b>
<b>M</b>	D3.1	Women elected	Number of elected city-level positions held by women divided by the total number of elected city-level positions	%	
<b>M</b>	D3.2	Community involvement in urban planning activities	Level of involvement of users in urban planning	Index	

	D3.3	Participation in decision-making (empowered society), incl. partnerships with NGOs and other stakeholders	Existence of participatory processes in decision-making (empowered society), incl. partnerships with NGOs and other stakeholders	Qualitative
<b>D4</b>	<b>Implementation and monitoring</b>			<b>4</b>
<b>M</b>	D4.1	Integrated Coastal Zone Management (ICZM) implementation practices	Existence of ICZM implementation practices	Qualitative
<b>M</b>	D4.2	Monitoring system	Definition and adoption of a monitoring system (e.g. dashboard of sustainability, urban observatory of the environment and sustainable development)	Qualitative
<b>M</b>	D4.3	Green procurement	Use of green procurement procedures	Qualitative
<b>D5</b>	<b>Communication and Outreach</b>			<b>2</b>
<b>M</b>	D5.1	Public awareness	Campaigns to raise the public awareness on sustainability/environment (with budget allocation)	Qualitative
	D5.2	International cooperation and networks	Participation in international cooperation and networks	Qualitative