

## Resilience of cities

### AFNOR offers a battery of indicators to help territorial directors

**AFNOR provides all territorial directors with indicators to help cities prepare, adapt and recover from disruptions affecting all or part of their services. They will also promote benchmarking between cities, in France and internationally.**

At a time when regions, departments and cities are called upon to support the recovery, AFNOR is publishing a set of indicators defined with the assistance of 72 countries to help territorial public actors understand what must be measured and how.

In addition to pandemics, cities are increasingly facing disruptions. These indicators will help them equip their capacities to manage and mitigate human and natural tensions generated by environmental degradation (e.g. poor air and water quality), social inequalities (e.g. chronic poverty and housing shortages) and economic instability (e.g., rapid inflation and persistent unemployment).

Gathered in [ISO 37123](#), the indicators are turnkey tools for assessing and understanding the risks to which the city is exposed. They will also inform decision-making aimed at reducing the vulnerability and exposure of populations and businesses. Like all internationally standardized indicators, these make the results obtained at the scale of a city comparable. They can also promote the benchmarking of neighboring or very distant cities.

#### 16 issues covered

From health to urban planning, including the economy, the environment and even finance, more than 60 indicators\* are proposed and distributed among 16 issues. The usefulness of each is explained, each time with keys to success and advice for identifying and selecting the appropriate data.

Usable in isolation or as a whole, the indicators of the [ISO 37123](#) can be addressed in a risk management approach (Annex B), disaster management (Annex C), or according to the Sustainable Development Goals and the Sendai Framework for Action for Disaster Risk Reduction (Annex D). Additionally, hazard typologies (Appendix A) can help cities identify potential hazards they face.

#### Good practices for cities

Commissioned by the State to represent France in European and international standardization bodies, AFNOR is the house of good practices. It provides cities with tools and methods that can be adapted to the scale of a territory and the terrain. L'[ISO 37123](#) thus completes the family of tools serving local authorities that are the [ISO 37120](#) on urban services and quality of life and [ISO 37122](#) on smart cities.

These voluntary standards are freely available in the [regional delegations](#) of the AFNOR group and partner centers

#### About AFNOR

AFNOR is the French reference organization for voluntary standards. It manages the collection of existing documents and leads the work of interested parties for the creation and revision of standards and to identify subjects that could provide material for developing new ones. Launched at the initiative of market players, the voluntary standard is a reference framework which aims to provide guidelines, technical or qualitative requirements for products, services or practices serving the general interest. Anyone can participate in its creation and any organization may or may not use and refer to it. As coordinator of standardization in France, AFNOR has one ambition: to contribute to the dissemination of good practices and effective solutions, for the benefit of all. [www.normalisation.afnor.org](http://www.normalisation.afnor.org)

### \* Examples of indicators proposed in ISO 37123

- **Economy**:percentage of property insured against high-risk hazards, concentration of jobs, average annual losses due to disasters as a percentage of urban product, etc.
- **Education**:percentage of population trained in emergency preparedness, disruption of schooling...
- **Energy**:number of different electricity sources, percentage of critical installations served by off-grid energy services...
- **Environment and climate change**:frequency of episodes of extreme precipitation or extreme heat, percentage of the city's surface area covered by a tree canopy, etc.
- **Finance**:annual expenditure for ecosystem restoration, modernization and maintenance of public service assets, emergency management planning as a percentage of the total city budget...
- **Governance**:Frequency of updating disaster management plans, percentage of electronic data backed up remotely, percentage of essential service providers with a business continuity plan, etc.
- **Health**:percentage of the population with basic health insurance, number of infectious disease outbreaks per year, percentage of the population vaccinated...
- **Accommodation**:capacity of emergency shelters, number of residential properties flooded...
- **Population and social conditions**:percentage of the population enrolled in social assistance programs, percentage of the vulnerable population...
- **Security**:percentage of responders trained in emergency aid, percentage of local alerts issued by national agencies and received in a timely manner by the city, etc.
- **Solid waste**:number of waste management sites available per square kilometer
- **Telecommunication**:percentage of emergency responders equipped to deal with disasters;
- **Transportation** :number of evacuation routes available
- **Agriculture and food security**:percentage of the population that can be supplied by food reserves for 72 hours, percentage of the population living less than 1 km from a grocery store, etc.
- **Urban planning**:surface area of constructions with porous and draining materials, percentage of the surface area of high-risk areas where risk reduction measures are taken, etc.
- **Water**:number of different water sources providing at least 5% of the total supply capacity, percentage of the population that can be supplied with drinking water by alternative methods for 72 hours...