

METHODOLOGY SHEET: INDICATOR N° 4**Title:****AVAILABILITY OF LOCAL PUBLIC OPEN AREAS AND SERVICES****Headline indicator: Percentage of citizens living within 300m from POA > 5.000 m²****Measurement:** Citizen access to nearby public open areas and other basic services**1. Definition**

Access is defined as living within 300 m from the open area or the other service¹.

Public open areas are defined as:

- public parks, gardens or open spaces, for the exclusive use of pedestrians and cyclists, except green traffic islands or dividers, graveyards (unless the local authority recognizes their recreational function or natural, historical or cultural importance)²
- open-air sports facilities, accessible to the public free of charge³;
- private areas (agricultural areas, private parks), accessible to the public free of charge⁴.

To allow a more complete data analysis, the indicator must be calculated twice: first, relating to areas greater than 5,000 m², and second for all areas used by the public for leisure and open air activities, regardless of their dimension.

Basic services are defined as:

- primary public health services (general practitioner, hospitals, first-aid posts, family advice bureaux or other public centres supplying medical services, such as diagnosis or specialist examinations);
- collective transport lines that, at least for part of a common business day, have a minimum frequency (half-hourly service);
- public schools (compulsory attendance schools + kindergarten);
- bakeries and greengroceries;
- door to door recycling services and recycling bins⁵.

¹ The European Environment Agency, DG Regional Policy and ISTAT (Italian Istituto Nazionale di Statistica) all use the concept 'within 15 minutes' walk' to define accessibility. It may reasonably be assumed that this corresponds to around 500 m on foot for an elderly person, which in turn may be equivalent to 300 m "as the crow flies".

² The indicator considers all areas used by the public for leisure and open-air activities. So even paved areas, if used for open air activities (i.e. skating) have to be included; on the contrary, a pedestrian road used for business and commercial activities should not be included.

³ Sport facilities should be included only if freely accessible to the public and used by common people: football fields or similar professional sport facilities should not be included.

⁴ Agricultural areas should be included only if used for leisure and open-air activities by the public. This is the case of farms that did "survive" urban expansion and are close to urban areas. These farms often change their commercial strategies, opening to citizens and schools, selling fruit and other products to the public and offering other services (restaurant, school visits, etc.). Agricultural areas can only be included in such cases.

⁵ In this case the indicator is calculated by summing the number of citizens served by the door-to-door recycling service and the number of citizens living within 300 metres from a recycling bin. In case cities have the possibility of better specifying the indicator they should bear in mind the conclusions reached at the workshop held in Ispra (November 2001): "Since several cities have adopted different collection strategies for different waste fractions, it is suggested to split the indicator in single indicators, one for

This indicator does not take the quality of the open area or service into account. In other words, it is assumed that the open areas or services perform - all in the same way - the functions for which they are intended. Naturally, this is not always the reality: there are open areas that are more attractive and popular than others, and the same goes for services. This weakness is, however, considered acceptable in the light of the possibility to monitor such level of satisfaction by means of Indicator 1.

The geographical level to be considered is the whole administrative area for which the local authority is responsible.

2. Question

What share of the inhabitants in the municipality lives close to public open areas and other basic services?

3. Context

Access to public open areas and basic services is essential in a sustainable community for the quality of life and the viability of the local economy. Having basic services close to home also reduces the need to travel. If basic requirements of food and health are not met, there is a failure to satisfy social needs. The absence of shops selling fresh fruit and vegetables is an indicator of social exclusion (e.g. in the UK) and a threat to health. Exclusion also occurs when lack of collective transport for those who rely on it is found.

Sustainability principles covered: 1, 3, 4, 5, 6.

4. Targets

There are no known targets or standards for this indicator, but access to open areas and services is recognised as essential for quality of life and local sustainability. Local authorities have an important role in facilitating access to open areas and basic services, for example through the planning process.

5. Unit of measurement

Number of inhabitants living within 300 m from open areas or services / total number of inhabitants = % of population

6. Frequency of measurement

Biennial, except for indicators concerning food stores, for which a triennial frequency is suggested, due to the fact that data collection costs could be considerable.

7. Data collection method and sources

The most reliable method is based on the use of a Geographical Information System (GIS) to determine the distribution of the data (citizens, open areas, services, according to category). Once the borders of the open areas have been located on the GIS, the areas within a radius of 300 m from the borders are identified. Thus the municipal land will appear to be divided into two areas: the one included in the 300 m belts around the open areas and the one not included. The GIS is consulted to obtain the number of citizens living within the areas included in the 300 m belts and the % of the total of citizens is calculated. The operation is then

each fraction, calculating distances from the following collection point: glass and/or metal; plastic; paper; organic waste. Special waste, such as batteries, medical waste, etc., shall not be included".

repeated for the points (or lines or borders if appropriate) corresponding to the basic services identified.

Data relating to the geographical distribution of the resident population should be available from the municipality or other administrative bodies (province or region) or from national statistical institutions (e.g. in the case of Italy, from ISTAT).

The local authority should also have data regarding the geographical distribution and extent of the open areas and services, in particular:

- public parks and gardens or open spaces, for the exclusive use of pedestrians and cyclists;
- open-air sports facilities, accessible to the public free of charge;
- private areas, accessible to the public free of charge;
- primary public health services;
- collective transport lines with a minimum frequency (half-hourly service);
- public schools (compulsory attendance schools + kindergarten);
- bakeries and greengroceries;
- door to door recycling services and recycling bins.

The distribution and size of parks, gardens and agricultural areas may also be obtained from remote sensing data that can be purchased (i.e. satellite data), although this data must then be verified through the use of maps and on-the-spot inspection.

The availability of data on the geographical distribution of the basic services will vary. Unlike that relating to open areas, this data cannot be obtained by 'remote' methods and requires a special database. Such a database may already be available from the local authority or other public bodies (Chamber of Commerce) or, if necessary, may be purchased from specialised firms (e.g. in Italy, from SEAT [Società Elenchi Abbonati al Telefono]).

An alternative method, should the one suggested above prove inapplicable or too costly, is the collection of data by means of interviewing a representative sample of citizens. A questionnaire must be prepared with a question about each of the services concerned. In this case, the question should relate to walking time (15 minutes) rather than to the distance in metres, as this reduces the risk of mistakes being made in the assessment.

8. Form of reporting/presentation

Public open areas:

- number of inhabitants living within 300 m from the public open areas / total number of inhabitants = % of population (to be presented as a figure); the indicator must be calculated twice: first, relating to areas greater than 5,000 m², and second for all areas.

Basic services:

- number of inhabitants living within 300 m from each single basic service / total number of inhabitants = % of population (to be presented as a figure for each category of service);
- number of children living within 300 m from public schools / total school population⁶ = % of school population.

9. Examples of similar applications

In its *State of the Environment Report* (1999), the city of Turin used an indicator based on the % of inhabitants living within 500 m of a green area (defined as a public garden or public park with a surface area greater than 6,000 m²).

⁶ "School population" includes compulsory attendance age children and children attending kindergarten.

Bristol City Council publishes the hectares of public open space and playing fields in every ward of the city each year, and calculates the average area for each of the 35 wards that make up the city for its *Quality of Life Report*. It also publishes the number of shops selling fresh fruit and vegetables in the city as a measure of the city's ability to meet basic needs.

10. Questions to address/Future developments

Further consideration should be given to:

- the maximum distance for access: a more complex indicator concerning different "spatial ranges" (different buffers) from open areas or services is envisaged;
- the minimum size of a recreational area;
- the services for which the indicator is to be calculated.

If differences in terms of quality of the recreational areas and services offered were to be significant, devising indicators based on levels of quality might turn out to be necessary. The quality level could be assigned by a committee of experts representing different interest groups.

It may be useful to ascertain the cost of creating the databases needed for determining the geographical distribution of services.

Basic services: a synthetic, more aggregate indicator regarding the percentage of inhabitants living closer than 300m from ALL basic services should be developed.

11. Keywords

access, public open areas, basic services, primary public health services, collective transport, public school (compulsory attendance school), food store, recycling facilities.