



# Experts' recommendations for estimating the multiple impacts of energy poverty

**This Experts' recommendations brief is inspired by the specific demand to address the cross-cutting issue of poor heating practices and increased air pollution in urban and rural areas in the Eastern European countries. Its major aim is to raise awareness on the local and national challenges to exploring the multiple environmental and climate impacts of energy poverty and propose adequate solutions.**

## Introduction

Although energy poverty is rapidly spreading all over EU, it has distinct specificities in the Eastern European countries: low-income households cannot afford to change the old inefficient heating equipment or replace the poor quality heating fuels. The undesired and negative effect of the low deployment of new and efficient heating technologies is the households' continuous use of inefficient heating equipment that produces excessive polluting emissions which threaten and deteriorate the population's health. The lack of precise data on the quantities and quality of the fuels used makes estimation of environmental, climate and health impacts difficult.

Energy poverty and poor air quality are both long standing issues in the Eastern Europe, but have yet not gained sufficient EU-wide recognition. Unfortunately, the multidimensional nature is often neglected in the political perception of energy poverty – especially the link between energy poverty and air quality is not considered by the current policies and measures. As a result, policies for energy, environment and climate issues are not integrated. In addition, there is a lack of ambitious targets for energy efficiency and reduction of climate and air pollutants.

## Data availability and clarity

The basis of all multiple assessment techniques is the availability and accessibility to reliable and complete data sets. Unfortunately, data on wood and coal energy consumption by the households is highly unreliable due to the difficulty of collecting it from the fuel providers. Even if the data exists, it may not be in the suitable format or with the proper granularity to process the data. In other cases, the data is considered confidential due to its market sensitivity and thus is not provided to the local authorities. Still, this data is crucial for the sustainable energy planning at local and regional level and the assessment of environmental and climate impact.

The proposed solutions are related to provisions of the national policies of all Member States:

1. to recognise the importance of data access for sustainable energy planning at local and/or regional level;
2. to acknowledge and promote the importance of integrated policy enforcement at local and/or regional level;
3. to encourage long-term cooperation between energy providers and local and/regional authorities for the purposes of sustainable energy planning and environmental and climate impact assessment;
4. to promote and encourage the development of local and/or regional data observatories that collect and process energy, environment and climate data;
5. to promote and encourage clear and transparent approaches to data collection and procession, including standardised data sets and exchange formats;

## Reliable and verifiable methodologies

A major obstacle to estimating the climate and environmental impact of energy poverty is the lack of coherent methodology to identify and make inventory of the energy poor households and their energy consumption. Another challenge is the variety of facultative fuel-to-energy conversion methodologies and country-specific PM and CO<sub>2</sub> emissions factors. Even though, there are EU-wide recognised guidelines, i.e. the EMEP/EEA and the Covenant of Mayors Guidebook, there is still low indication of what approaches, methods and algorithms for data procession are deployed in various municipal strategic documents. Thus, the calculations are difficult to trace and verify.

The proposed solutions are related to provisions of the local and/or regional policies of all local communities:

1. to deploy energy poverty identification and segmentation protocols with energy, economic and social criteria;
2. to describe data approaches and methodologies used in strategic energy planning in a clear and transparent manner;
3. to ensure the compliance of emission conversion factors with the national and/or EU thresholds;
4. to align data and energy conversion methodologies in baseline and monitoring reports;
5. to develop concise inventories per sector and per energy carrier;

## Data availability and clarity Multiple assessment and integrated policy development

The link between energy poverty in the Eastern European countries and the increased air pollution from residential burning is underestimated and needs further investigation. The challenge is inter-related and multifaceted and needs high recognition and integrated policies. Thus, multiple assessment of the energy, environmental, climate, social and health impacts of poor heating practices is an essential cornerstone for the development of evidence-based actions, measures and policies at local, regional and/or national level. Through applying multiple assessment, leverage for the local actions investments to achieve added value results that benefit the society and improve its welfare is ensured.

The proposed solutions are related to provisions of the local, regional and/or national policies of all Member States:

1. to set high and ambitious energy, environment and climate targets aligned with the national and EU targets;
2. to promote the development and implementation of long-term roadmaps covering energy, environmental and climate themes;
3. to establish data-driven actions and measures aligned with integrated strategic planning;
4. to ensure the technical and economic sustainability of all integrated actions and measures through applying multiple assessments;
5. to promote and encourage the implementation of practical solutions and best practices.

## The InventAir Team



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