Summary note of Why your country should develop its own carbon database, and how

Developing a national emission factors database

Actors at different scales show an interest in carbon accounting and are ready to adopt tools that are suitable to their context in order to get started. Several methodologies and tools for quantitative estimates of greenhouse gas (GHG) emissions have been developed by international organizations, among them ISO 14064, and the GHG Protocol. These methods are all based on the same approach using GHG emission factors. Many countries do not have their own national emission factor databases, and use international standards or other standards. These international standards do not always correspond to real-life activities and organizations in the countries and regions where carbon accounting needs to be developed. The creation of a national database of emission factors, also called a carbon database, is a significant step towards giving public and private organizations access to data that are reliable and specific to their own context, for the purpose of developing their low carbon strategy.

This long-term goal calls for:

- resources in terms of financing, human resources, technical competence and expertise;
- robust governance to ensure proper management.

The carbon database is not only a compilation of emission factors. This notion also comprises action to structure and coordinate the users³ community. The initial focus may be carbon accounting; the creation of a database will also increase the awareness and competence of local actors regarding energy and climate issues, and foster the emergence of an ecosystem of teaching materials, training programmes, tools and methods for establishing local climate plans, transition strategy for organizations, etc.

Under the auspices of the project owner – the entity that administers and manages the carbon database – the steering committee plays a key role, defining a vision and direction to ensure the ongoing vitality of the database.

The format and medium of the carbon database are chosen as appropriate to the local context. If the carbon database is started «from scratch», scientific and technical expertise will be needed to supply data based on calculated emissions factors, those drawn from the literature, etc. The methodology for calculating emission factors (scope, assumptions, uncertainty factors, etc) must be determined at the outset, to ensure that all data are reliable and consistent with database requirements. These technical conditions are documented with reference to database creation methodologies validated by earlier projects.

While the technical features of the project attract the most attention, experience shows that proper governance is the key factor for successful development of an emission factor database.

For a more detailed analysis, consult the full text of Why your country should create its own carbon database, and how.





