

The Revised Framework for the Development of Environment Statistics

Iva Ritschelová¹ | *Czech Statistical Office, Prague, Czech Republic*

Egor Sidorov² | *Czech Statistical Office, Prague, Czech Republic*

Abstract

Interest among decision-makers in high quality and complex environment statistics, suitable for developing their policies has been growing during the last few decades. Different countries have diverse experience of establishing their own national system of environment statistics. In order to motivate countries to build national environment statistics and consequently support international activities in the field the UN has introduced the Framework for the development of environment statistics (FDES) in 1984. Since that time institutional conditions, production and consumption patterns, environmental state, as well as environmental science itself has changed significantly. This was the reason for the recent updating of the FDES. The paper presents the outcome of the revision process, providing short introduction of institutional context, the proposed structure as well as the key features of the newly developed framework.

Keywords

Environment statistics, development, FDES, UN, framework

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INTRODUCTION

The need for information is constantly increasing. Users are becoming more demanding and users' needs are increasingly diverse. Geography of these needs rapidly expands in concern with the development of the different countries of the World. The nature of statistics – in general – is changing, as they are being used more and more for evidence-based policy-making.

The development of environment statistics in particular goes hand in hand with the development of environmental management and technology. Without appropriate environment information systems it would have been impossible to define and describe the environmental-economic and social interrelations that are highly influencing economic activities, investments, employment, foreign trade, price levels, etc., in other words – all those factors that determine the welfare of nations. This was undoubtedly the reason for the ever increasing interest among decision-makers in high quality and complex environment statistics, suitable for developing their policies.

¹ Chairperson of the Expert Group on the Revision of the FDES. Czech Statistical Office, Na padesátém 81, 100 82 Prague 10, Czech Republic. Corresponding author: e-mail: predsedkyne@czso.cz

² Czech Statistical Office, Na padesátém 81, 100 82 Prague 10, Czech Republic.

1 FDES EVOLUTION

Not all countries of the World have comparable experience of establishing their own national system of environment statistics. One of the reasons is the fact that the process of creating a high quality environment statistics system is highly resource and time consuming. Furthermore it requires a great deal of synergy and coordination of environmental research with the creation of an appropriate institutional framework, up-to-date statistics collection and production techniques, and last but not least, financial resources.

The financial aspects of statistics production are currently becoming even more critical due to the current state of the World impacted by the financial crisis and consequent economic issues. Environmental issues, and therefore environment statistics, may seem to have a lower priority compared to “all-absorbing” economic problems. Under these conditions it is more important than ever to realize that a healthy environment is one of the core factors influencing, or better-to-say enabling our well-being. Economic welfare is only a part of it if we think of it in the global environmental context. And we should also be conscious about this.

Nations of the World should under no circumstances give up activities aimed at keeping our natural environment intact for both current and future generations. Environment statistics may be one of the powerful tools to persuade the policy makers to develop policies that would respect these principles.

As it was mentioned, we are all aware that different countries have diverse experience and possibilities concerning both financial and research capacities. For the common good any valuable experience in the field of environment statistics development should be actively disseminated. The role of international organizations and agencies in this respect is indisputable.

One of the important milestones was the introduction of the common Framework for the Development of Environment Statistics (FDES) by the UN back in 1984. The main goal of FDES development was to motivate and support countries to build their own environment statistics which would be a part of the world wide environment statistics system. Another expected effect was making environmental data comparable, and therefore usable for designing policies on a global scale, since only at this level specific environmental issues could be treated efficiently.

After three decades it can be seen that a really a significant improvement in the field of environment statistics was reached. Since 1984 the FDES has served a number of countries as a good tool for establishing and developing their environment statistics that in its turn supported development, realization and consequent assessment of environmental policies. Due to overall progress of society both in terms of the institutional conditions, as well as in the field of environmental science, much has changed since the initial introduction of the FDES.

That is why at its 41st Session in 2010 the United Nations Statistical Commission decided to set up a work program for FDES revision. Recommendations stated that the revision process should:

- Provide supporting methodological guidance and best practices;
- Engage a variety of stakeholders and Stress institutional coordination and cooperation;
- Ensure links to the System of Environmental-Economic Accounting (SEEA), the Driving force – Pressure – State – Impact – Response (DPSIR) framework, the MDGs indicator framework, and other relevant frameworks.

The Expert Group for this task consisted of 20 experts representing all regions, in both developing and developed countries, as well as international organizations and specialized agencies. One should also mention that the group was chaired by the Czech Republic.

The revision process was based on analyzing and reviewing of the existing state-of-the-art indicator frameworks. According to UN (2013) during this process more than 2 500 environmental indicators from around 50 existing frameworks were analyzed by the UN SD professionals. This knowledge was applied for the revised FDES development.

2 REVISED FDES STRUCTURE

The structure of the framework is represented by the six components, i.e. broader domains according to which the statistics is categorized and organized. Those include (FDES, 2013):

1. Environmental conditions and quality;
2. Environmental resources and their use;
3. Residuals;
4. Extreme events and disasters;
5. Human settlements and environmental health;
6. Environmental protection, management and engagement.

One should also mention, that component “environmental conditions and quality” is considered to be at centre of the FDES. The rest of components are closely related to it being in close interactions between each other. The structure respects the coverage of biophysical aspects of the environment on the one hand and human-society processes that either directly influence, or are influenced by, the state and quality of the environment on the other hand.

Above mentioned components of the framework are further broken down into the more specific sub-components according to types and sources of the relevant environment data. The final decomposition level of the framework is represented by the respective indicators.

Due to the resource scarcity and different environmental issues nature in different parts of the World the framework represents a flexible approach to environmental statistics development. The set of statistics is designed with enough flexibility to be adapted to individual countries’ needs listing the most important environment statistics that is in its turn is classified according to priority and importance. Prioritization is presented by the progression of the three tiers (FDES, 2013):

1. Tier 1 is the Core Set of Environment Statistics which are of high priority and relevance to most countries and have a sound methodological foundation. This set of indicators represents a broad consensus of opinion, high relevancy and sound methodological base accompanying the included statistics.
2. Tier 2 includes environment statistics that are of priority and relevance to most countries but need more investment in time, resources or methodological development.
3. Tier 3 includes environment statistics which are either of less priority or require significant methodological development.

As one can see, countries facing e.g. resource constraints can flexibly choose the set and structure of statistics to develop according to their priorities and also plan the development process in short-, medium- as well as long-term. The Core Set was tested in 25 countries, and both the revised FDES and the Core Set were subjected to a Global Consultation process, that showed that this approach is suitable for both developing and developed counties with each of them showing different level and structure of national environment statistics.

CONCLUSIONS

The updated Framework is a complex, coherent and flexible tool that is currently missing at the international level. It is truly multi-purpose; referring to the widest range of user needs set up within a sound logical framework. It is compatible with other existing frameworks and classifications. It provides valuable reference to the existing knowledge and enables further synergic development of environmental statistics programs, accounting, and policy making. Finally it is flexible enough to fit the conditions of any given country of the World at any stage of the environment statistics development, setting up clear priorities with a full respect to existing resource scarcity.

We are witnessing an important milestone in the history of environmental management in general and environment statistics in particular. The 44th session of the United Nations Statistical Commission

endorsed the revised FDES together with the plan to put the FDES to work. The special Standing Expert Group for further methodological development in this field was also established.

Three decades of the FDES existence became history and, a new era of its existence has begun. One can expect that this step would greatly contribute to the overall development of environment statistics, as well as to its development in individual countries. We all have to keep in mind that the natural world can do without humanity, but humanity cannot do without the natural world.

References

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