The use and application of the FDES at the national level

Workshop on Environment Statistics in support of the implementation of the Framework for the Development of Environment Statistics (FDES 2013) (Lomé, Togo, 19-23 October 2015)

Environment Statistics Section, United Nations Statistics Division
Countries using the FDES for environment statistics development (expressed interest/requested technical assistance to implement FDES)

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Examples of use of the FDES

- **QATAR**: In 2012 Statistics Authority (since June 2013 Ministry of Development Planning and Statistics) reviewed its environment statistics according to international standards to better match it with the national and international policy and information needs. The overall goal was to develop a single national source of environmental statistics which can be used for multiple purposes. The FDES played an important role in this process. Qatar was one of the pilot countries for the FDES and feedback on some practical issues was provided to UNSD and the Expert Group on the Revision of the FDES. Based on the FDES, a draft Qatari Framework for Environment Statistics (QFES) was developed, specifying data providers and data collection methods, helping to bridge institutional frameworks and laying down the statistics to be collected on a regular basis. The QFES is continuously further developed in close cooperation with the key-stakeholders and fully consistent with the FDES. The first data collection process under this new Framework was finished in the first half of the year 2013 and one of the first dissemination products is the Qatari Environment Statistics Report 2013.
Examples of use of the FDES

• **MAURITIUS**: The implementation of the FDES 2013 in Mauritius started following the “UNSD/COMESA Workshop on Environment Statistics in support of the implementation of the FDES 2013” in January 2015. At the first instance, the list of environment statistics as prescribed in the FDES 2013, was scrutinized and it was observed that around 26% of the approximately 460 statistics were already published regularly. The next step was the identification of the institutions which can provide data to compile the missing statistics and corresponding indicators. Working sessions are being held with the data suppliers to apprise them of the FDES 2013, its implementation and to discuss issues such as relevancy, availability, reliability, periodicity and timeliness of the data which they will be required to provide. Indicators compiled will adhere to the FDES 2013 and be disseminated in the Digest of Environment Statistics in November 2015.
Examples of use of the FDES

- **BOTSWANA**: Statistics Botswana, through its Environment Statistics Unit (ESU), produced its first report on environment statistics in 2000. The areas covered in the report include climate, land, water, forestry, energy, agriculture, wildlife and mining. The FDES 1984 developed by UNSD was used to compile the statistics. The FDES provided the necessary guidance on what sort of data to collect and analyze, and how to organize the statistics. In the process, ESU learnt of the challenges inherent in the production of environment statistics due to its multi-disciplinary nature and it being sourced from a variety of data producers. In compiling the latest statistical reports ESU used the FDES 2013. The FDES 2013 was found to be well structured, flexible and easy to use. Its strength lies in the way it organizes statistics into components, sub-components, statistical topics and individual statistics. It also assisted them in identifying the main sources of data.

- **ECUADOR**: The INEC (NSO) has constructed the national system of environment statistics (SIEA) based on the guidance and the structure of components of the FDES. They have complemented this information with indicators derived from their National Development Plan.
Examples of use of the FDES

- PHILIPPINES: The Philippines have been using the FDES as the framework for their environment statistics programme since 1999 when the Philippines Framework for the Development of Environment Statistics was initiated. The Compendium of Environment Statistics, also based on the FDES, has been published every second year since 2000. After the adoption by the Statistical Commission of the revised FDES, a training workshop was conducted in order for Philippines to update the implementation of the FDES 2013, to use the BSES and the ESSAT to identify data gaps and prioritize actions to fill them in, and to test the applicability of the FDES 2013 as a framework for climate change-related statistics.

- COLOMBIA: The National Administrative Department of Statistics “Departamento Administrativo Nacional de Estadísticas de Colombia” (DANE) has used the FDES as a guiding document for their environment statistics development, and is coordinating the development of a Strategic Plan to put into practice the Framework for the Development of Environment Statistics.
**Examples of use of the FDES**

- **AUSTRALIA**: Measures of Australia's Progress (MAP) provides a digestible selection of statistical evidence about how Australians are doing. The range of statistical measures that MAP presents demonstrates change. They are grouped under three broad headings: the society, the economy and the environment. Within these broad domains, several dimensions are addressed, such as biodiversity in the environmental domain. Within the dimensions, a headline indicator is used to tell a story about the extent of progress, supported by contextual measures. The FDES 2013 has been used as one of the sources for the development of components of the environmental domain. The Tier 1 - Core Set of Environment Statistics was used to highlight possible sets of key indicators, particularly around Environmental Conditions and Quality, and Residuals.

- **VIETNAM**: the application of the FDES 2013 in Vietnam is related to the need for environmental data with a view to improve its National Statistical Indicator System (NSIS). For the review of the environmental indicators within the NSIS, the FDES 2013 was used as the main reference. Given the comprehensiveness of the FDES, including its Core Set of Environment Statistics organized by specific environmental themes, the revision process was greatly enhanced.
Example: System of Environment Statistics of Ecuador

http://www.ecuadorencifras.gob.ec/sistema-integrado-de-estadisticas-ambientales-siea/

El Sistema Integrado de Estadísticas Ambientales (SIEA) está basado en el Marco para el Desarrollo de Estadísticas Ambientales (MDEA) o FDES 2013 por sus siglas en inglés, preparado por la División de Estadísticas de las Naciones Unidas, que ha sido hecho suyo por la Comisión Estadística de las Naciones Unidas en 2013 como el marco para desarrollar estadísticas ambientales en los países. Este marco organiza y estructura la información estadística ambiental en función de componentes, subcomponentes y tópicos estadísticos ambientales, además define un Conjunto Básico de Estadísticas Ambientales organizadas en la estructura del marco, a partir de las cuales se crearon indicadores que responden a los Objetivos de Desarrollo del Milenio, que están alineados al Plan Nacional del Buen Vivir 2013-2017.

Los indicadores que se presentan en este visualizador se crearon y clasificaron de acuerdo a los seis componentes que propone el MDEA. El proceso de desarrollo del MDEA 2013 se puede consultar en:

United Nations Statistics Commission
Six FDES Components Of System of Environment Statistics of Ecuador

FDES Component 1
- Condiciones y Calidad Ambiental
  - Atmosfera, Clima y Condiciones Meteorológicas
  - Información Geológica y Geográfica
  - Características del Suelo
  - Biodiversidad
  - Calidad del Aire
- Recursos Ambientales y su Uso
  - Producción y Comercio de Minerales no Energéticos
  - Producción y Consumo de Energía de Fuentes Renovables y no Renovables
  - Uso del Suelo
  - Recursos Acuáticos
  - Cultivos
  - Ganado
  - Extracción, Uso y Retornos de Agua
- Residuos
  - Recolección y Tratamiento de Aguas Residuales
  - Descargas de Agua Residual al Ambiente
  - Gestión de Residuos: Residuos
  - Gestión de Residuos: Gestores
  - Gestión de Residuos: Instalaciones
  - Aplicación de Bioquímicos

FDES Component 2
- Eventos Extremos y Desastres
  - Ocurridencia de Eventos Naturales
  - Impacto de los Eventos Naturales
  - Ocurridencia de Desastres Tecnológicos
  - Impacto de los Desastres Tecnológicos

FDES Component 3
- Asentamientos Humanos y Salud Ambiental
  - Población Urbana y Rural
  - Acceso a Agua, Saneamiento y Energía
  - Condiciones de la Vivienda
  - Cuestiones Ambientales Específicas de los Asentamientos Urbanos
  - Enfermedades y Condiciones Transmitidas por el Aire
  - Enfermedades y Condiciones Relacionadas con el Agua
  - Enfermedades Transmitidas por Vectores
  - Problemas de Salud Asociados a la Exposición Excesiva a la Radiación Ultravioleta

FDES Component 4
- Protección Ambiental, Gestión y Participación/Acción Ciudadana
  - Gasto Público en Protección Ambiental y en Gestión de Recursos Naturales
  - Gasto de Empresas Privadas, Instituciones Sin Fines de Lucro y Hogares en Protección Ambiental y en Gestión
  - Fortaleza Institucional
  - Regulación Ambiental e Instrumentos
  - Percepción y Conciencia Ambiental
Ecuador System of Environment Statistics

Area under environmental conservation and management

![Graph showing area under conservation and management](image)
How the FDES 2013 has been utilized

- Countries have used the FDES in different ways as it is a flexible and adaptable tool, prioritizing the development of what is most needed and feasible given each country’s circumstances.

- The FDES has been used independently by countries, and as a basis for capacity building and technical assistance by UNSD and partner agencies, and has also been used by consultants assisting countries/regions/sub-regions to develop and strengthen environment statistics.

- Countries that have recently developed their environment statistics programmes are using the FDES structure and guidance to organize their own statistical databases and compendia of environment statistics (following the same components, sub-components, etc.)

- The FDES has been very helpful in providing guidance for countries on how to organize and develop environment statistics that are multi-purpose. This statistical series can be further utilized for compiling indicators, substantiating reports, and together with economic statistics, producing integrated accounts.
How the FDES 2013 has been utilized (continued)

- FDES has added value as it provides conceptual and methodological knowledge, a structure to organize statistics, as well as offers a three-tiered Basic Set of Environment Statistics (BSES), to help countries build their environment statistics in accordance to international recommendations.

- The BSES (http://unstats.un.org/unsd/environment/FDES/BasicSet.htm) and the ESSAT (http://unstats.un.org/unsd/environment/FDES/essat.htm) provide a menu of statistics against which a country can identify what they need, what they have, who is producing what, enabling them to construct a national development program for environment statistics through time.

- Countries have used the FDES and its tools (e.g., BSES, ESSAT) as they complement each other. Forthcoming methodology sheets as part of the Manual on the Basic Set of Environment Statistics (http://unstats.un.org/unsd/environment/FDES/Manual_BSES.htm) for each statistic of the Basic Set will be utilized as they become available.
UNSD and the implementation of the FDES 2013

- UNSD is conducting a series of regional/sub-regional training workshops on the FDES 2013 through its regular capacity development programmes.

- UNSD is currently engaged in two Development Account projects, one on green economy indicators covering pilot countries in the Latin American and Caribbean region and the Asian region, and the other on environment statistics covering the East African region. Both projects include training on the FDES 2013.

- The FDES 2013 is also being implemented at sub-regional levels in the Gulf Cooperation Council (GCC), Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC) regions.

- A Blueprint for Action, describing these and additional activities, is also available on UNSD’s website at: http://unstats.un.org/unsd/statcom/doc13/BG-FDES-Environment_Blueprint.pdf