Indicator Reporting Information System (IRIS)

Workshop on the System of Environmental–Economic Accounting Central Framework and SDG Indictors

Presented by Abdelmenam Mohamed, Amman, 26 March 2018

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“The availability of high-quality, timely and disaggregated data is vital for evidence-based decision-making and to ensure accountability for implementation of the 2030 Agenda...”

—Report of the Secretary-General, Progress towards the Sustainable Development Goals, 2017
UN Environment Indicators

Water quality, water resource management and freshwater ecosystems 6.3.2, 6.5.1, 6.6.1

Sustainable consumption and production, including material flow accounts, chemicals and wastes, environmental policy, food waste and fossil fuels 8.4.1, 8.4.2, 12.1.1, 12.2.1, 12.2.2, 12.3.1, 12.4.1, 12.4.2, 12.5.1, 12.6.1, 12.7.1, 12.a.1, 14.1.1, 14.2.1, 14.5.1

Ocean related indicators on marine litter, acidification, marine management and coverage of protected areas

Protected areas, including mountains, and national CBD targets, public expenditure on conservation and biodiversity 15.1.2, 15.4.1, 15.9.1, 15.a.1, 15.b.1

Environmentally sound technology and sustainable development policy 17.7.1, 17.14.1
Outline of the Presentation

1. Background and Objectives
2. Partners
3. How IRIS Works
4. Benefits
5. Key Output
6. Road map for 2018
Background and Objectives – I / IV

- With limited resources, many jurisdictions across the globe and at all levels of government struggle to produce `about the environment and its cause-effect relationships with social or economic systems.

- This may lead to policies and management interventions being made on the basis of incomplete information.
Background and Objectives – II / IV

• Whilst environmental reporting is essential for effective environmental management current reporting methods are often tedious, slow and labour intensive.

• Production of multiple reports at monthly, quarterly or even annual intervals can become a significant institutional burden and an ineffective use of scarce, expensive subject matter expertise.
Background and Objectives – III / IV

• The Indicator Reporting Information System (IRIS) is a web-based application that aims to:

  1) Reduce the institutional burden of recurring reporting

  2) Make reports more timely by reducing their production time

  3) Enable reuse and aggregation of information in reports

  4) Enable institutional capacity development by sharing reporting knowledge and resources
Background and Objectives – IV

• Indicators are information that tell us in a simple manner about the status of often complex systems.

\[
\text{Indicator value } = f(A, J, Z)
\]

• Indicators are at the heart of IRIS and of objective decision making.

• By automating data processing IRIS will allow institutional staff to be deployed efficiently and focus exclusively on the critical activities that need human involvement such as enabling monitoring data supply channels and indicator assessment.

• Enabling efficient use of institutional resources will provide decision makers with higher quality, more complete and more timely data to guide their decision making.
Partners

- IRIS is being developed by the Abu Dhabi Global Environmental Data Initiative (AGEDI) partnership between the Environment Agency – Abu Dhabi (EAD) and United Nations Environment.
How IRIS Works – I / III

- Based on data from an organization’s routine monitoring, IRIS will automatically calculate values for indicators.
- The calculated indicator value and supporting information are presented to a subject matter expert for assessment and narration, with the result forming part of a report.

- Organisations supporting open data policies have the option for the source data used to be included with the report.
How IRIS Works – II / III

- The output of one IRIS can be used as input to another thus enabling data sharing through the formal reporting process.
How IRIS Works - III

• IRIS was designed not to be limited to any specific topic area or geography – thus ensuring its applicability and durability.

• Being indicator independent IRIS facilitates convergence of data streams from different sectors.

• This capability is essential for sustainable development, which demands an understanding of how decisions in one domain – whether social, environmental or economic – affects and is impacted by others, looking at upstream causes and downstream consequences.
Benefits – I

• A concern in many organisations is the misinterpretation of observation data by individuals less familiar with the geographic context, and this has previously inhibited observation-level data sharing.

• IRIS will overcome this by keeping the indicator value, the underlying data and the local subject matter expert’s narrative “bound” together; thus IRIS supports data sharing, but does so within the context of a local subject matter expert’s narrative.

• IRIS includes a Shared Knowledgebase (SKB) that allows reporting organizations from across the world to share methods, tools, templates and experiences with other IRIS users across the globe.
Benefits – II

• By design, IRIS will support any indicator that can be automatically computed from data.

\[
\text{Indicator value} = f(A, J, Z)
\]

• Given that the science behind indicators is in a state of constant improvement, the core IRIS engine and the SKB will allow the reporting community of practice to benefit from new indicators and methods as they evolve as well as monitor new issues as they arise.
Key Output

- The primary output of the IRIS project is the web-application.

- For organizations that prefer to keep their data in-house IRIS will be available as an intranet solution that runs on local servers.

- For organizations with more open data policies or those with limited information technology resources, it will be available as secure profile on a remotely hosted web server.
Road map for 2018

- The technology behind IRIS is continuously being developed and will keep evolving in 2018 beyond the version 1.0 launched at UNEA 3 in December 2017. The aim is for IRIS to become open source.

- IRIS will be deployed in various countries in Africa, Eastern Europe, Latin and America and the Caribbean (LAC) along with some Small Islands Developing States (SIDS).

- UAE is the only Arab country using IRIS.
How do I get more info

• More information on IRIS can be found at www.agedi.org/iris

• Queries can be sent to environmentlive@unep.org
Demonstration

• Drop us a line at: EnvironmentLive@unep.org with your preferred schedule.

• The demonstration will be done over the Internet through an online meeting software (GoToMeeting)

• The full demonstration for technical staff takes about 2 hours
Worldwide Projects interested in the Indicator Reporting Information System*

01. Some African Countries
   - Technical support visits to countries. Training on the production of environmental statistics.

02. Cameroon
   - On-going internal discussions on IIRS Governance. Project review, June 2017.

03. Montenegro
   - IIRS deployment planned at the Ministry of Sustainable Development and Tourism, Montenegro.

04. Bosnia and Herzegovina
   - After feedback and comments on the Indicator framework, IIRS being populated with selected indicators.

05. Abu Dhabi Environmental Data Initiative (AGEDI)

06. Regional IIRS for Latin America and the Caribbean
   - Community of Practice activated in April 2017. IIRS proposed as a tool to implement the regional indicator framework for the 35 countries in the region.

07. DA Air Quality Project
   - On 08 June 2017, training was conducted mostly for staff in Thailand, UN Environment. Participants yet to be identified for Thailand, Sri Lanka, Mongolia, Botswana and Ethiopia.

08. Secretariat of the Pacific Regional Environment Programme (SPREP)
   - Secretariat of the Pacific Regional Environment Programme (SPREP) proposed as an IIRS technical hub for 14 Pacific countries.

09. Secretariat of the Basel, Rotterdam and Stockholm (IBIS)
   - GEF projects concepts developed in 2017 by the IBIS secretariat include IIRS. Next steps will depend on the countries.

10. African Small Islands Developing States (SIDS)
   - IIRS proposed as a tool to implement the indicator framework in Cape Verde, Comoros, Maldives, Mauritius, San Tome and Principe, and Seychelles. https://gedi.org/cia
Thank you

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