IRIS

INDICATOR REPORTING INFORMATION SYSTEM

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What is IRIS?

The Indicator Reporting Information System (IRIS) is a free of cost , web-based application that:

1 Reduces the institutional burden of routine environmental report production.

2 Make reports more timely by reducing their production time.
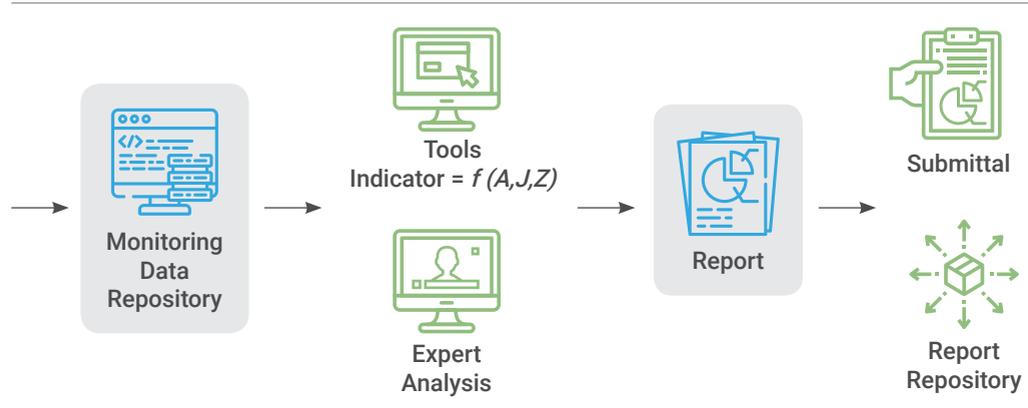
3 Fast tracks production of geographically aggregated reports.

4 Support institutional capacity development by providing a Shared Reporting Resource and Knowledge Base.

5 Overcomes a widespread obstacle to data sharing.

Monitoring Data Repository → Tools Indicator = $f(A,J,Z)$ / Expert Analysis → Report → Submittal / Report Repository

By enabling efficient use of institutional resources IRIS will provide decision makers at all levels of Government and across Society with high quality, more complete and more timely information to support Sustainable Development.

IRIS Benefits

Workflow automation allows valuable subject matter experts to be efficiently deployed.

Fast tacks reporting at local, national, regional and global scales by using IRIS reports as a data source.

Objective, evidence based reporting.

Supports integrated environmental assessment by including socio economic drivers and consequences of environmental change.

Well selected indicators are scientifically sound and present information on complex issues in a form accessible to a wider stakeholder community, including Sustainable Development Policy and environmental management experts.

Accommodates new and evolving reporting priorities.

Applicable at local, national, regional and global scales.

Globally applicable.

Optionally supports sharing of monitoring data by encapsulating data in a report alongside a local subject matter expert's assessment narrative.

IRIS reports can be used as a data source by other administrations and stakeholders.

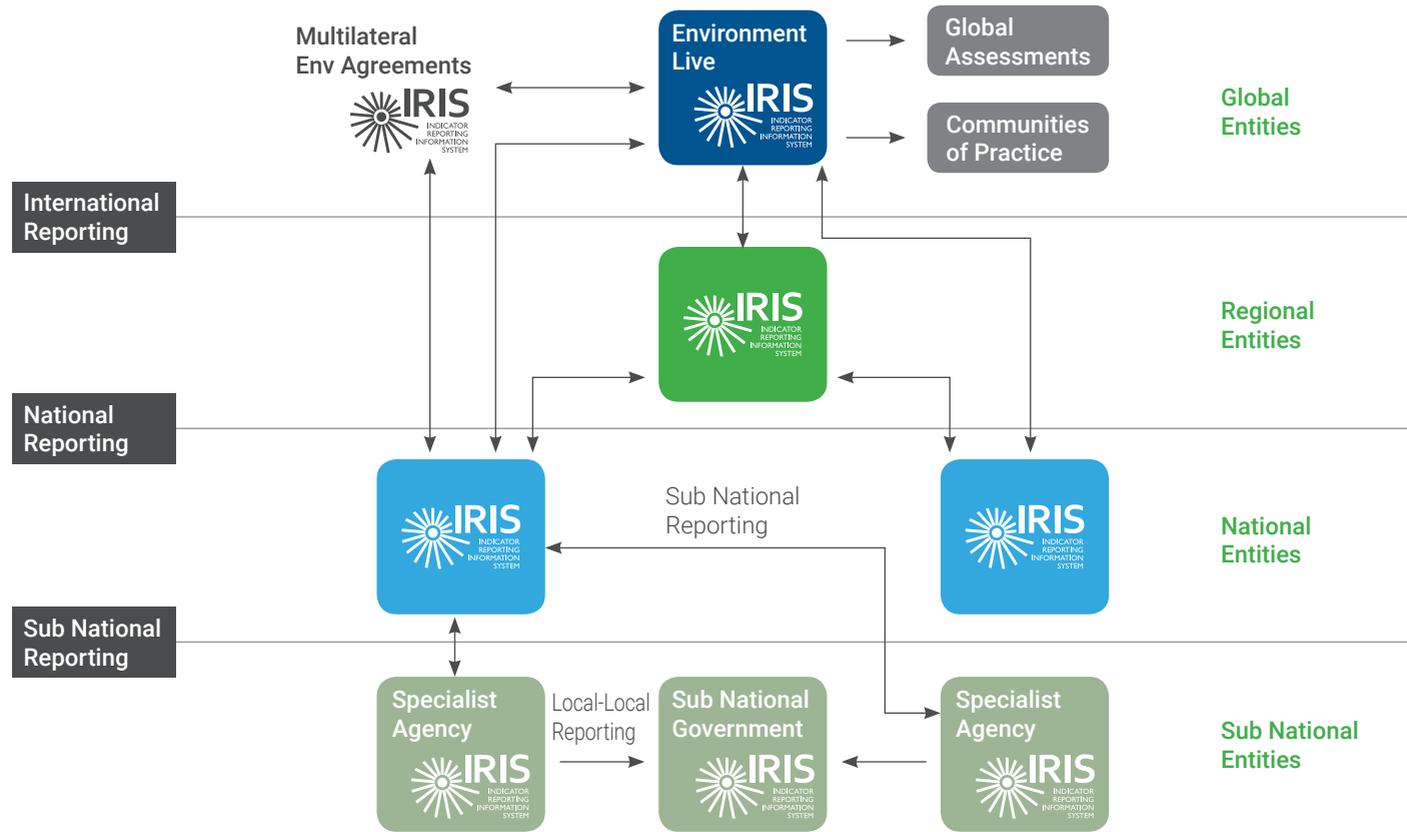IRIS is available as an on-premise intranet solution or as a remotely hosted service.

Data is read directly from data holdings.

Reporting and Indicator Knowledgebase (2019) will support institutional capacity development and efficiency.

Intended Users and Applications

Multilateral Env Agreements	Environment Live **IRIS**	Global Assessments
		Communities of Practice

Global Entities

International Reporting

Regional Entities

National Reporting

National Entities

Sub National Reporting

Sub National Entities

Specialist Agency — Local-Local Reporting → Sub National Government ← Specialist Agency

Sub National Reporting

IRIS is designed to support all tiers of Government; from Sub-national to National, Regional and Global.

IRIS was designed to support environment related reporting including tracking indicators of Drivers and Pressures (causes) of environmental change, Environmental Status and the Impacts of Environmental change, and for monitoring policy and management interventions.

IRIS supports proactive (bottom up) reporting to stakeholders and mandated (top down) reporting.

To ensure applicability in all geographies and the full diversity of environmental concerns the core IRIS product does not know about any indicators or reports, rather these are defined in configuration files and are imported according to the user's current and evolving requirements.

## IRIS Fast Tracks Local, National, Regional and Global Reporting
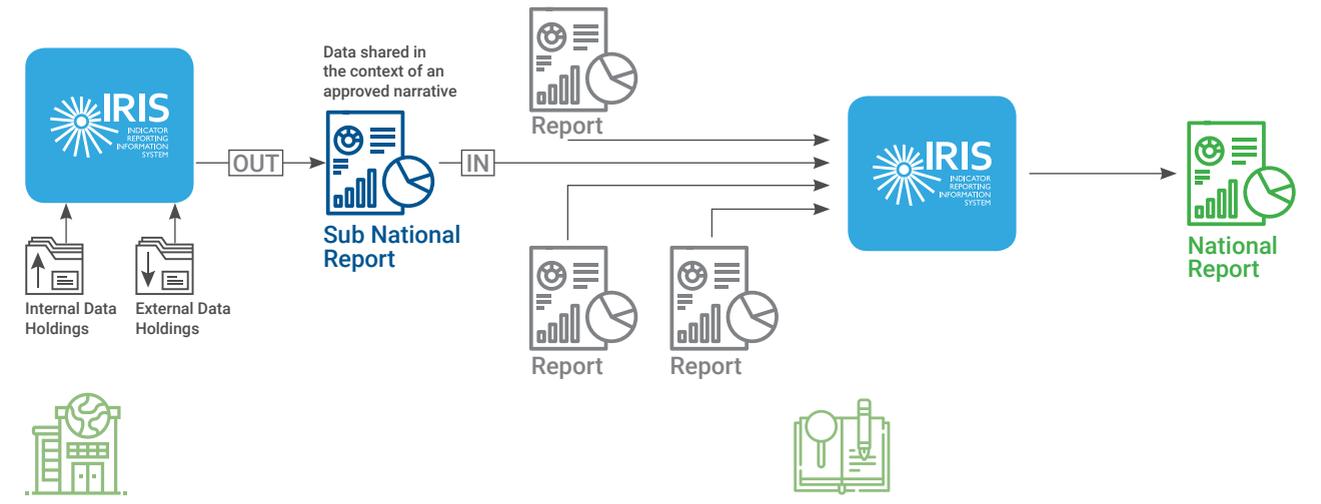
National, Regional and Global Assessment and Reporting often rely on data collected by lower tiers of Government. There is a pressing imperative to facilitate local-scale data acquisition, fast-track its assessment and to enable rapid generation of national, regional and global assessments.

Machine-readable IRIS reports produced by one organisation can be used as data inputs by another. By a process of successive reporting and aggregation across various tiers of government, data collected by subnational organisations ultimately inform global assessments.
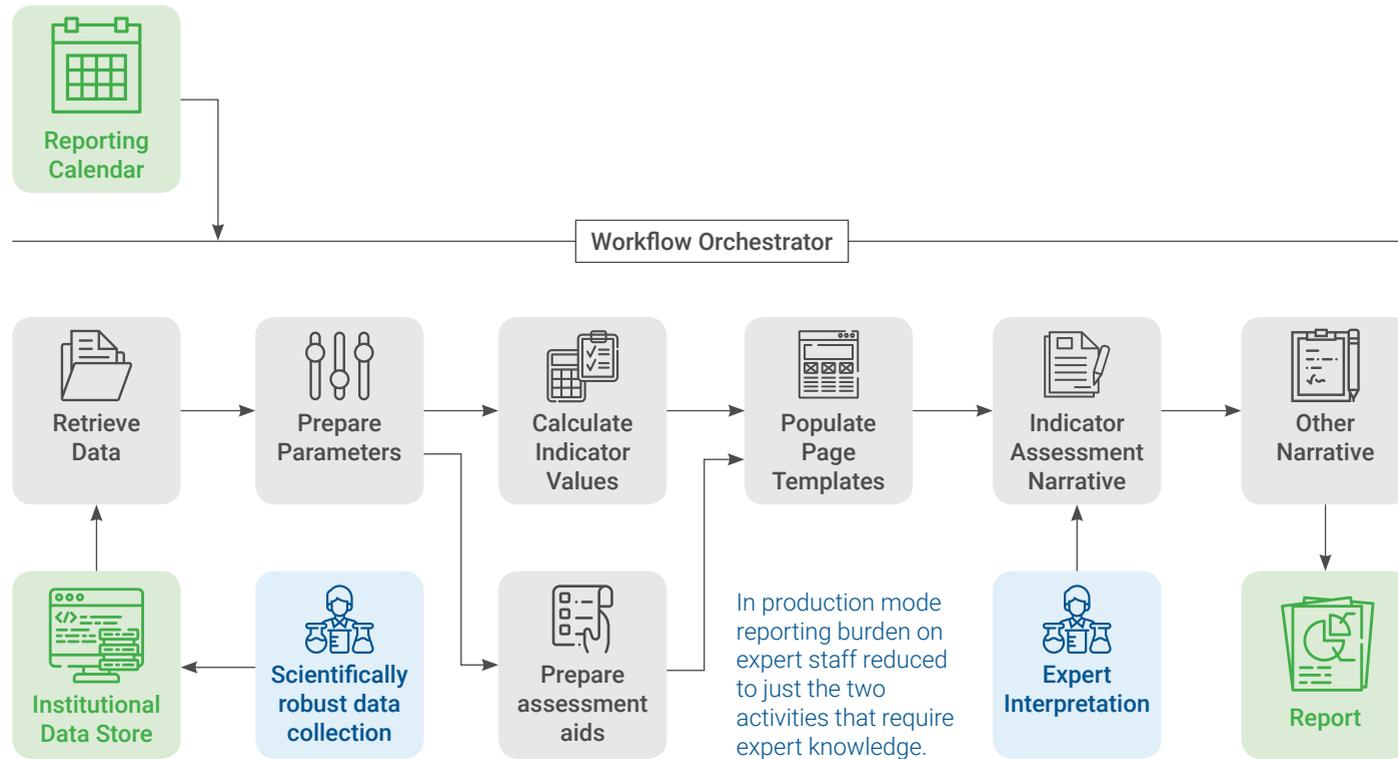
User Defined Indicator Dashboard

For Sustainable Development Policy and Environmental management purposes decision makers need to track environmental state, stressors and consequences of environmental change. At the local level these factors may change in time frames measured in days. For such cases IRIS supports the presentation of user-defined sets of indicators in dashboard format.

Driver	Pressure	State	Impact	Response
23	91	44	76	58
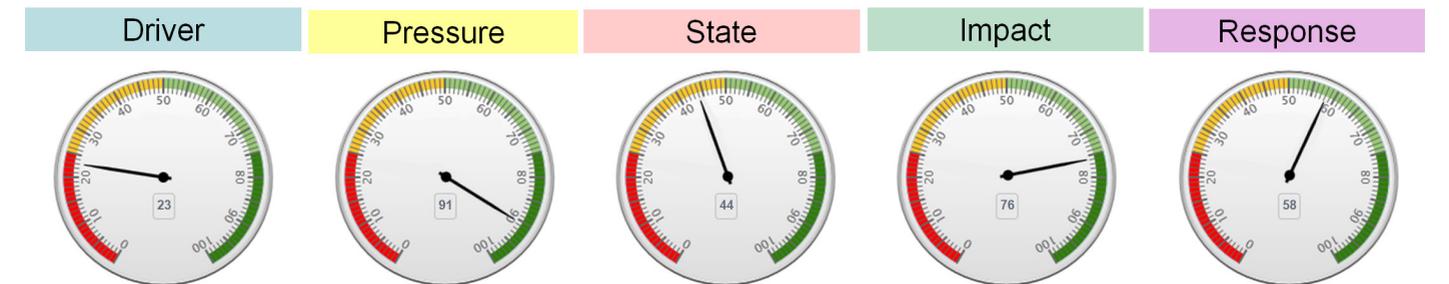
Multi-Indicator dashboards are an effective way for decision makers to review cause-effect relationships within complex systems.

How does IRIS Work?

Reporting Calendar

Workflow Orchestrator

Retrieve Data → Prepare Parameters → Calculate Indicator Values → Populate Page Templates → Indicator Assessment Narrative → Other Narrative

Institutional Data Store

Scientifically robust data collection

Prepare assessment aids

In production mode reporting burden on expert staff reduced to just the two activities that require expert knowledge.

Expert Interpretation

Report

Reading data from an organization's routine monitoring data or from reports submitted by other IRIS users. Note: IRIS connects to users existing data stores. IRIS currently supports spreadsheet, RDBMS and api data stores.

IRIS automatically calculates values for indicators.

The calculated indicator value along with supporting information are presented to a subject matter expert for assessment narrative.

Multi-page report chapters will be brought together along with further overarching narrative to form the report.

Organisations supporting open data policies have the option for the source data used to be included with the report.

Based on Templates - Supports any Algorithmic Indicator or Report

- Indicator priorities and reporting obligations change over time and vary from organisation to organisation.

- By design, IRIS supports any indicator that can be automatically computed from data and any report that can be defined as a template.

- IRIS defines report and indicator templates externally. Users import report and indicator templates per their requirements.

- These features mean IRIS is a universally applicable and durable solution.

Shared Knowledge Base

- Reporting Obligations
- Report Templates
- Indicators
- Goals/Targets
- Algorithms
- Data Specifications
- Data Collection & Processing

The Shared Knowledge Base is an online repository of reporting assets developed and openly shared by the global community of practice.

An online Shared Knowledge Base (SKB) allows organizations from across the world to author and share indicators, algorithms and report templates for download and re-use by other IRIS users across the globe. This powerful capability supports Institutional Capacity Development through knowledge exchange. The Shared Knowledge Base also allows report-mandating institutions to define a standard template for use by those obliged to submit reports.

The current IRIS User Community
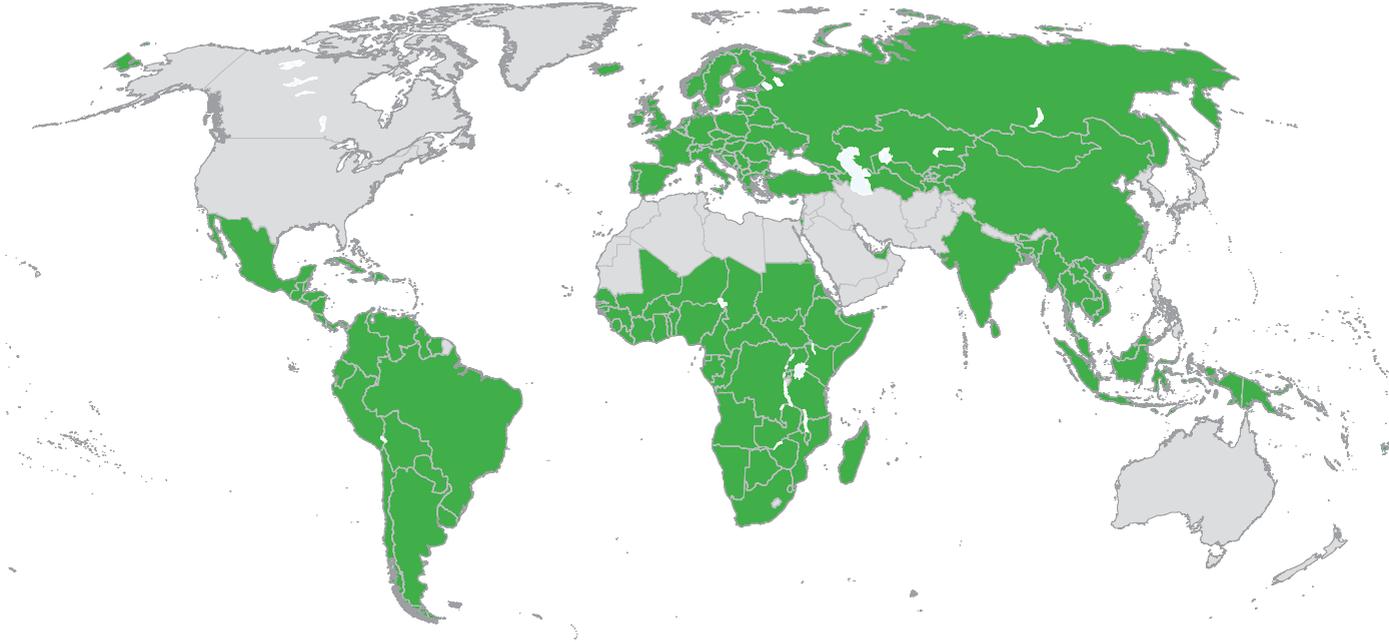
■ Countries that have deployed IRIS or are considering its deployment

IRIS at the Global Level

SUSTAINABLE DEVELOPMENT G❂ALS

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| 1 NO POVERTY | 2 ZERO HUNGER | 3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 5 GENDER EQUALITY | 6 CLEAN WATER AND SANITATION |

| 7 AFFORDABLE AND CLEAN ENERGY | 8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION |

| 13 CLIMATE ACTION | 14 LIFE BELOW WATER | 15 LIFE ON LAND | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS | 17 PARTNERSHIPS FOR THE GOALS | SUSTAINABLE DEVELOPMENT G❂ALS |

Since 2016, UN Environment has been using IRIS to collect environmental data from countries. UN Environment is custodian agency for 26 SDG Indicators in addition to 93 environmental indicators it is obligated to report on. The data is collected from countries by specialized agencies on behalf of UN Environment, who among other things, conduct Quality Assurance. IRIS reads the data from these agencies in three excel formats, and now supports API and SDMX standards for data exchange.

IRIS at the Regional Level

SEIS
Shared environmental information system

The UN Economic Commission for Europe with the support of the European Environment Agency and UN Environment, have developed the Shared Environmental Information System (SEIS). This IRIS derivative is an online reporting tool, and it is consistent with the streamlining process, based on SEIS principles, taking place in the 54 pan European countries (EEA member and cooperating countries).

IRIS is also currently supporting implementation of Framework for Development of Environmental Statistics (FDES) in Africa and West Asia.

IRIS at the National Level

IRIS has been installed on the Government Infrastructure in the following countries: Bosnia & Herzegovina, Cameroon, Montenegro and Mauritius for the state of the Environment report (SoE), Atlantic and Indian Ocean SIDS Integrated Water Resource Management.

IRIS at the Sub-National Level

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Environment Agency - ABU DHABI

As core partner in the Abu Dhabi Global Environmental Data Initiative the Environment Agency - Abu Dhabi is proving IRIS for sub-national reporting.

IRIS for Thematic Issues

MONITORING THE ILLEGAL KILLING OF ELEPHANTS

MIKE

The CITES Mike (Monitoring the Illegal Killing of Elephants) programme with the support of UN Environment, have developed an IRIS derivative, that will help provide information needed for elephant range states to make appropriate management and enforcement decisions, and to build institutional capacity within the range states for the long-term management of their elephant populations.

Frequently Asked Questions

How much does IRIS cost	In accordance with the principles of the Abu Dhabi Global Environmental Data Initiative the IRIS software is available free of cost. Third parties may charge consultancy fees to assist organizations in associated deployment and institutional capacity building.
Who created IRIS?	IRIS is being developed by the Abu Dhabi Global Environmental Data Initiative partnership between the Environment Agency - Abu Dhabi (EAD) and United Nations Environment. The partners represent opposite ends of the Local-National-Regional-Global reporting hierarchy. As a sub-national public sector entity, EAD is responsible for local environmental policy and management and undertakes long term environmental monitoring programmes. As the UN entity tasked to keep the environment under review UN Environment relies on data collected by regional, national and ultimately sub-national entities.
Which Indicators does IRIS support	IRIS supports any indicator that can be expressed as an algorithm. Users can create their own indicators or will be able to access algorithms shared by the IRIS user community via the Shared Knowledge Base.
Which reports does IRIS support	IRIS uses Report Templates, therefore it can be used for any data-driven reporting obligation, Users can create their own report templates or will be able to access templates shared by the IRIS user community via the Shared Knowledge Base
How do I upload data to IRIS	IRIS reads data from institutional data stores, so it is not necessary to upload data to IRIS. IRIS can read data from spreadsheet, relational database management systems and API's More data sources will be added over time.
How can I get more information	Please contact the IRIS Deployment Manager: **unenvironment-live@un.org**

Next Steps - Deploying IRIS

Whether used as a hosted service or deployed onsite IRIS must form part of an institutional data, indicator and reporting framework.

The UN Environment IRIS team, in partnership with approved third-party deployment partners, can assist organizations deploy IRIS via a two step process. Our approach is based on partnership between the IRIS Deployment Team and the Candidate User Organisation.

Phase 1: Situation Assessment and Deployment Planning

1. Meet with the candidate user entity and understand their context, needs and constraints.
2. Review available data, technology, process, prepare a gap analysis.
3. Develop a user-side resourcing plan.
4. Develop a Capacity Building and Training schedule.
5. Develop a deployment schedule.
6. Estimate costs to implement.

Phase 2: Typical Deployment Activities

7. Technical implementation including support and maintenance.
8. Capacity Building for the key IRIS focal points.
9. Monitor and evaluate the implementation (surveys, feedback, etc.).
10. IRIS User Conferences will occasionally be organized to encourage the sharing of experiences and lessons learnt.

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For further information

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