



National Reporting Toolkit

IEA Workshop Presentation

Wednesday 11th December, 9.30am

Agenda

- 9.30am - Overview of National Reporting Toolkit (Jonathan Smith, UNEP-WCMC)
 - aims and objectives
 - progress so far
- 9.45am - NRT GI backend (Tamer Abdelkadir, AGEDI)
 - Introduction
 - NRT and where it fits in DPSIR
 - NRT...adding Live to SoER
 - NRT Conceptual Components
 - Unified Data Standards
 - Overview on NRT phase 1 back end Application
 - Future of NRT
 - Discussions
- 10.15am - NRT- Regional and Global (Craig Mills, UNEP-WCMC)
 - Phase 2 roll-out
 - regional level analyses
 - links to UNEP-Live

Milestones

FACILITATING A SUSTAINABLE FUTURE:



❖ 2004: Inclusion of Abu Dhabi State of the Environment Reporting into AGEDI process

- ❖ 2009: SoE Report Abu Dhabi Published
- ❖ 2009: Hosted Global Meeting on Environmental Information Networking
- ❖ 2010: Review of State of the Environment Report Abu Dhabi & Sector Papers
- ❖ 2010: Environmental Outlook
- ❖ **2011: Eye on Earth Summit & inception of 8 Special Initiatives**

2013: Arabian Atlas of Our Changing Environment with UNEP
2013: Local, National & Regional NRT Phase 1
2014: **Local, National & Regional NRT Phase 2**



❖ Sept 2, 2002
AGEDI launched @ WSSD, Johannesburg

- ❖ 2006: 9 Environmental Sector Papers published
- ❖ 2006: First web based reporting in Region: SoE Report for Abu Dhabi

- ❖ 2012: Blue Carbon Demonstration Project
- ❖ 2012: Local National & Regional Biodiversity Rapid Assessment



Aims and Objectives:

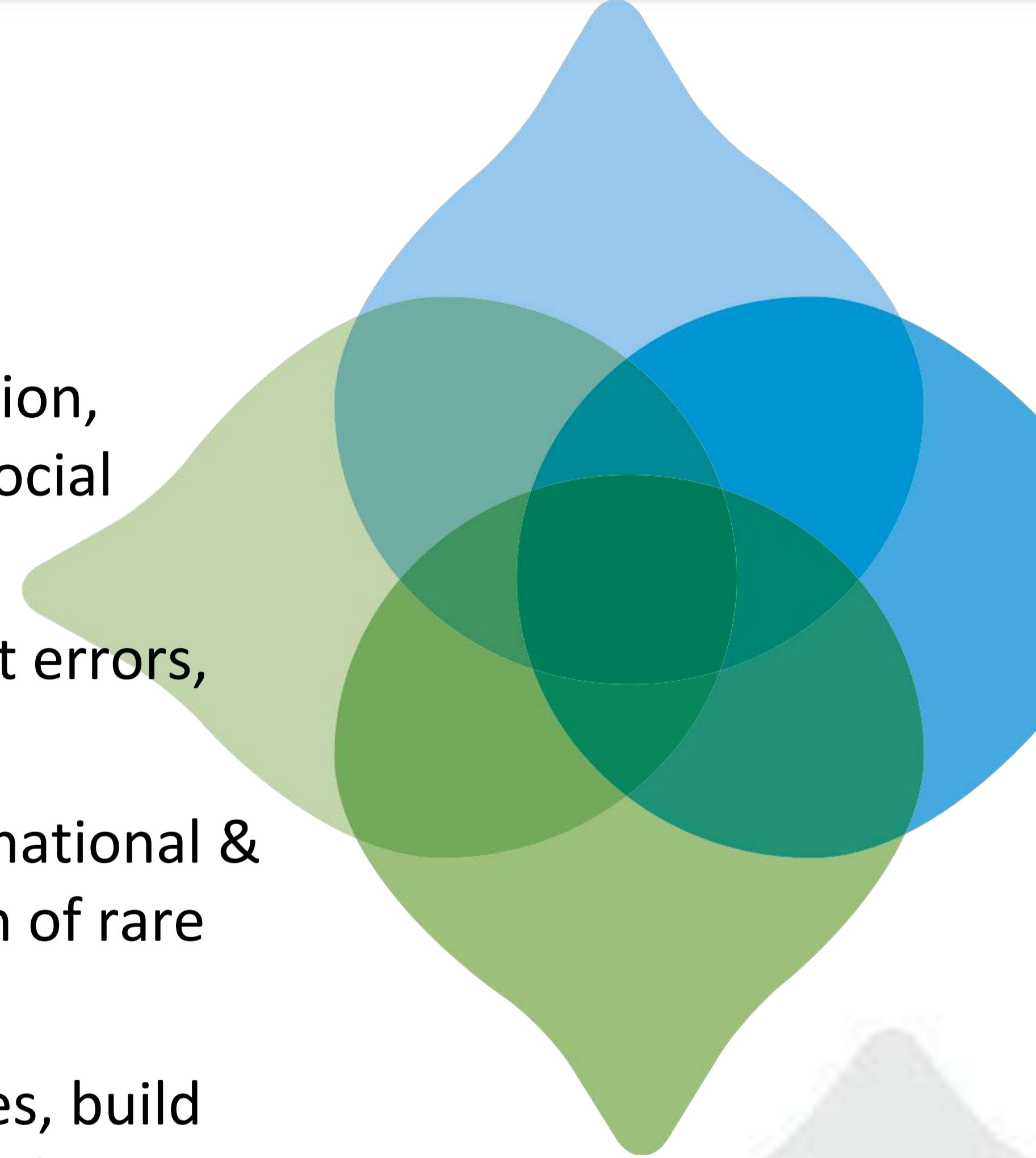
AIMS:

- ❖ **SOER – Live** was envisaged as an online reporting tool to assist and enable national governments to develop their national State Of the Environment Reports online.
- ❖ Provide a web-based State of Environment reporting application.
- ❖ Provide users a choice of charts and graphs to use developing State of Environment report .
- ❖ Assist countries to produce a digital national State of Environment report.
- ❖ Enable countries to collaborate to develop a digital regional State of Environment report.

Aims and Objectives:

OBJECTIVE:

- ❖ Develop an user-focused State of Environment (SOER) application, sensitive to the interaction between environment & cultural/social issues.
- ❖ Online application to upload data, edit the draft report, correct errors, & reduce time taken to produce State of Environment reports.
- ❖ Administrators determine what data is shared or included for national & regional reporting but not publically available (e.g. the location of rare fauna/flora species).
- ❖ Easier to develop State of Environment Reports using templates, build capability and capacity through help guidance notes and examples.



What is the state of
my country's
environment?



National Reporting Toolkit

Overview of the National Reporting Toolkit
Jonathan Smith - UNEP-WCMC

What is the National Reporting Toolkit?

The screenshot displays the 'National Reporting Toolkit Abu Dhabi' interface. The top navigation bar includes the user name 'James Cox', a 'Help' link, and a language selector for 'العربية'. On the left, a 'Themes' sidebar lists 'Air Quality' (with 2 indicators out of date), 'Biodiversity', 'Water' (with 2 indicators out of date), 'Productive Natural Resources', and 'Environmental Awareness'. The main content area is titled 'Air Quality >' and contains a descriptive paragraph about air quality in Abu Dhabi, followed by a grid of four data cards: NO2 Concentration (GOOD, 3 of 4 stations, Up to date), O3 Concentration (NOT REPORTED ON, - µg/m3, Out of date), PM10 Concentration (BAD, 9 of 9 stations, Up to date), and SO2 Concentration (NOT REPORTED ON, - µg/m3, Out of date). Below this is a 'Biodiversity >' section with a descriptive paragraph.

National Reporting Toolkit Abu Dhabi

James Cox | Help | العربية

Themes

- Air Quality**
2 indicators are out of date
- Biodiversity**
- Water**
2 indicators are out of date
- Productive Natural Resources**
- Environmental Awareness**

Air Quality >

Clean air is a valuable resource for the residents of Abu Dhabi, and one that the government of Abu Dhabi is determined to protect. The quality of Abu Dhabi's air is naturally poor on occasion due to naturally occurring high level... [\(Read more\)](#)

NO2 Concentration	O3 Concentration	PM10 Concentration
GOOD	NOT REPORTED ON	BAD
3 of 4 stations	- µg/m3	9 of 9 stations
Up to date	Out of date	Up to date

SO2 Concentration
NOT REPORTED ON
- µg/m3
Out of date

Biodiversity >

The ecosystems, habitats and communities of flora and fauna of Abu Dhabi are a fragile, priceless treasure. However, development and growth impose intense pressure on these natural assets. Government has taken steps to ensure that these resources are protected for... [\(Read more\)](#)

An online application providing environmental intelligence...

- Online platform to report, visualise, analyse and collect indicators of environmental performance and status
- collecting, analysing and presenting indicators takes time, and NRT automates a lot of this to speed-up the process of writing reports: Provides collaboration, visualisation, reporting and data management functions.

Video

Show you what it does, not tell you what it does.

Connecting people and information

- **Interconnection**
 - unlocks existing data stores through APIs etc- sharing of information for use in different arenas (national accounting, reporting to conventions, development planning)
- **Fits with existing workflow**
 - Designed to complement and enhance existing workflows which deliver the necessary information to decision-makers
- **Indicators**
 - measurement and context (the key information) calculated quickly and presented simply, so understand change in current status and outlook for future

so they can change the way environmental assets are managed

- Building capacity to communicate with decision-makers, so decisions can be taken more quickly
- Analyses that can speak across departments, mainstreaming environment into areas where a real impact can be made
- Demonstrate the return on investment in natural assets, providing information needed to test innovative mechanisms

We are building it in an agile, iterative way

- Learning
 - Meetings with stakeholders to prioritise what needs to be built
- Building
 - Working intensely on a 'sprint' and then polishing ready to show
- Release
 - Let stakeholders use the software and gather remote or face-to-face feedback

National Reporting Toolkit

GI backend of the National Reporting Toolkit
Tamer Abdelkadir, AGEDI

Introduction

تقديم

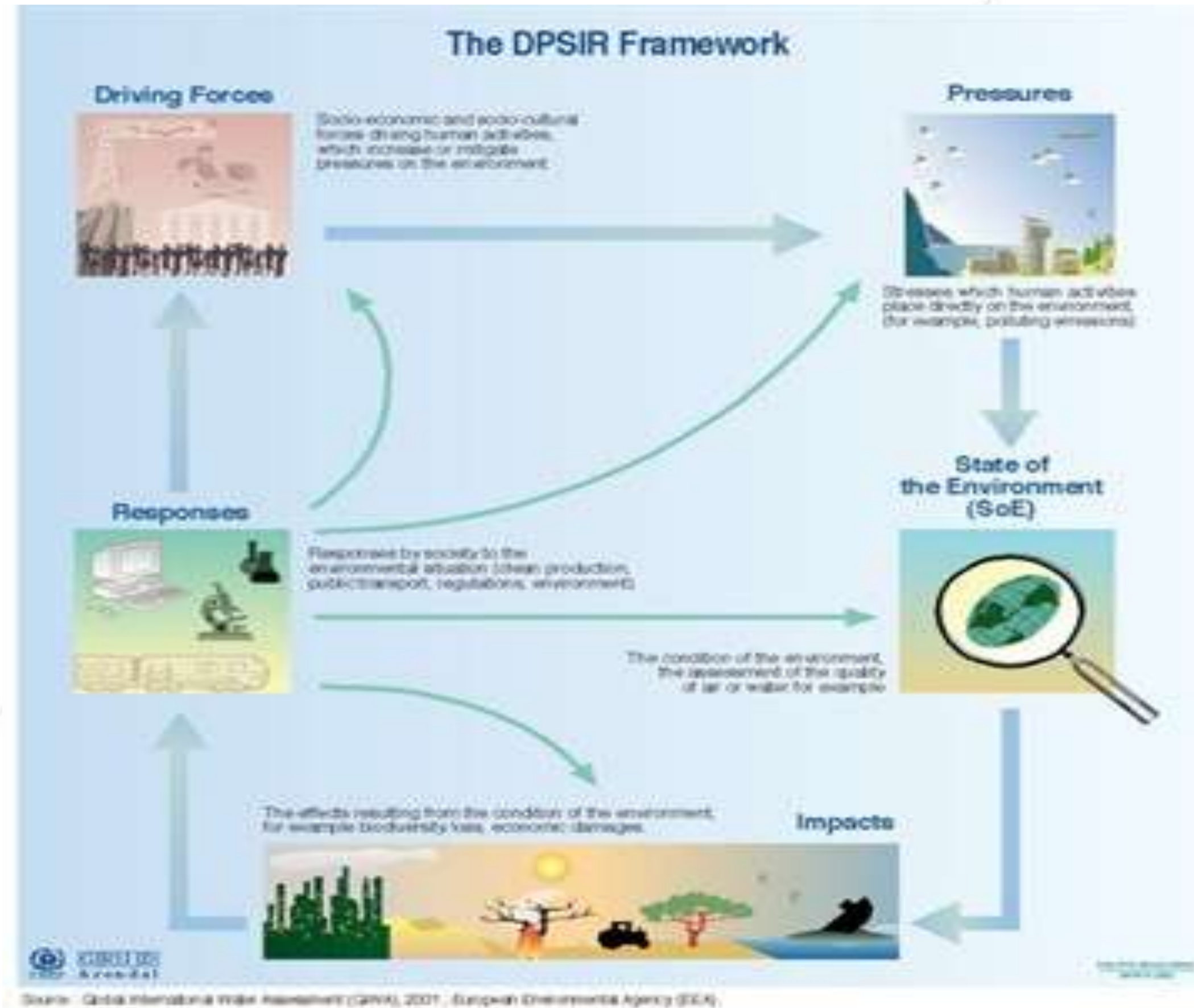
- ❖ About us
- ❖ K&A Consultants – NRT Back-end module developers – Collaboration with AGEDI, UNEP-WCMC
- ❖ شركة خطيب و علمي، قامت بتطوير النظام الخلفي كمكون لنظام حافظة التقارير بالتعاون مع AGEDI, UNEP-WCMC الوطنية،



DPSIR

❖ Where NRT fits in DPSIR Framework

❖ حافظة التقارير الوطنية و ملائمتها لإطار



NRT - Adding Live to

SoER حافظة التقارير الوطنية...

What is different about NRT?

- ❖ Web-based
- ❖ Frequent updating, dynamic, paper less/environmental friendly
- ❖ Automated validation, processing, display, output environmental data
- ❖ Advanced GIS modelling and functionalities
- ❖ User-interactive, user-centric, responsive
- ❖ Multi-lingual in single report

المسة الإضافية لتقارير حالة البيئة

❖ تطبيق شبكي

❖ تحديث مستمر و محتوى ديناميكي، صديق للبيئة

❖ أتمتة عمليات تدقيق و تشغيل و عرض البيانات البيئية

❖ وظائف و نمذجة متقدمة للحالة البيئية

❖ التواصل و الإستجابة مع المستخدمين

❖ تعدد اللغات في التقرير الواحد

NRT conceptual components

What blocks build NRT?

المكونات الفكرية للنظام

Front End Module

- ❖ Data display
- ❖ Data manipulation
- ❖ Simple content editing

Backend module

- ❖ System configuration
- ❖ Data import tool
- ❖ Data validation tool
- ❖ Data processing
- ❖ Data output

التطبيق الأمامي

- ❖ عرض البيانات
- ❖ تغيير و تطوير البيانات
- ❖ تعديلات بسيطة على المحتوى

التطبيق الخلفي

- ❖ ضبط النظام
- ❖ أداة إدخال البيانات
- ❖ أداة تدقيق البيانات
- ❖ تشغيل البيانات
- ❖ تصدير البيانات

Unified Data

Standards

المعايير الموحدة للبيانات البيئية

Why do we need them?

- ❖ Data validation
- ❖ Data processing
- ❖ Reporting Format

What types of Standards?

- ❖ Collection criteria and methods (reliable data sources)
- ❖ Coverage areas (sample selection from entire population)
- ❖ Accuracy
- ❖ Frequency of collection
- ❖ Spatial & attribute specifications & formats

لماذا نحتاجها؟

- ❖ تدقيق البيانات
- ❖ تشغيل البيانات
- ❖ نمط و شكل التقرير

ما نوع المعايير المقترحة؟

- ❖ معايير طرق جمع البيانات
- ❖ معايير الموقع و مناطق التغطية
- ❖ معايير الدقة المطلوبة للبيانات
- ❖ معايير للفترة الزمنية لتجميع البيانات
- ❖ معايير أنماط البيانات المكانية و الوصفية

NRT Backend Overview

عرض نبذة عن النظام الخلفي

Video/Snapshots showing different functions
(10 minutes)

What is the future of NRT

مستقبل تطبيق حافظة التقارير الوطنية

On the Business Level:

- ❖ Wider extent (Geography)
- ❖ More parameters
- ❖ More data sources
- ❖ More user groups- sophisticated scenarios
- ❖ Developed user requirements

On the Technical Level

- ❖ Automated data feeds from environmental sites
- ❖ Real-time geo-processing
- ❖ Advanced simulations & scenarios, (trend analysis, mock-up, force-driven...etc)

على النطاق العملي

- ❖ نطاق جغرافي أوسع
- ❖ قياسات بيئية أكثر
- ❖ مصادر بيانات أكثر تنوعا
- ❖ مجموعات مستخدمين أكثر و خطوات أكثر تعقيدا
- ❖ متطلبات مستخدمين أكثر تطورا

على النطاق التقني

- ❖ تحديث آلي للبيانات البيئية من الموقع
- ❖ تشغيل و تحليل لحظي للبيانات
- ❖ تحليلات و نمذجة إفتراضية أكثر تطورا

Discussions

more information
tamer.abdulkadir@khatibalami.com

**The National Reporting Toolkit:
regional and global scale
Craig Mills - UNEP-WCMC**

National Reporting Toolkit

Increasing scale increases benefits

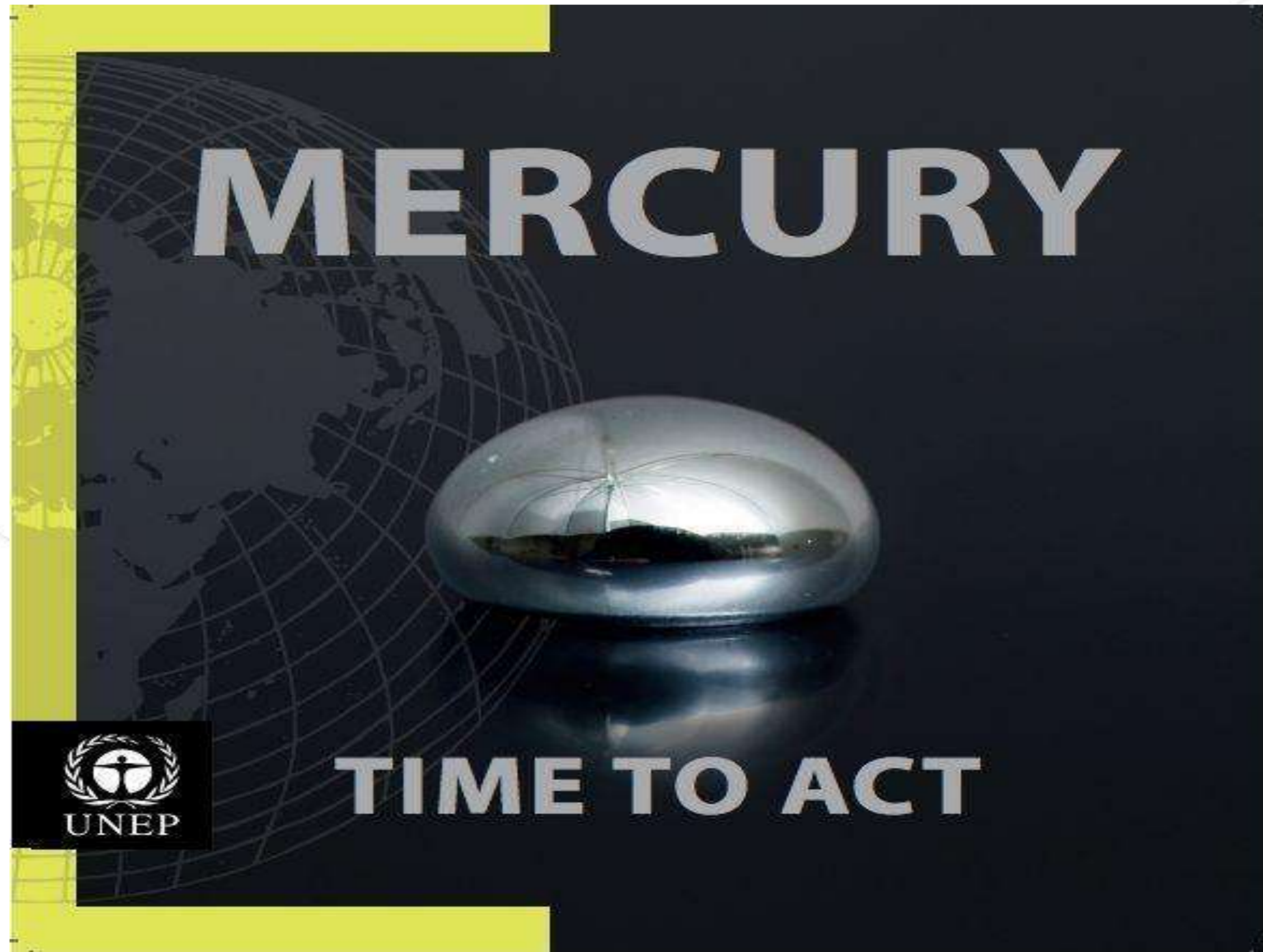
- Next year we hope to deploy to four countries in the region
 - United Arab Emirates, Oman, Kuwait, Saudi Arabia
- This provides an opportunity to link nations together more easily, providing the basis for much quicker regional level analysis
 - at national level, spend less time responding to data requests
 - at regional level, can work with most recent data as soon as possible, supporting LAS and CEDARE

Increasing scale increases benefits

- In subsequent phases we hope to deploy NRT in other regions, particularly in Africa, Latin America and South-east Asia
- This provides an opportunity to link countries together to facilitate global-level analyses
 - at national level, spend less time responding to data requests
 - at global level, spend less money assembling comprehensive data sets and can analyse most recent data more quickly

UNEP has a mandate to monitor the environment

- **UNEP** plays a normative role in global environmental policy discussions (e.g. UNFCCC, UNCCD, CBD, Rio+20)
- **Rio+20** mandate to strengthen the science-policy interface



UNEP-Live - the future

approach

- Providing timely, high quality environmental information to decision-makers across the globe (www.uneplive.org)

The screenshot displays the UNEP Live website interface. At the top, there is a navigation bar with links for 'Calendar', 'Multimedia', 'News', 'Outreach', and 'Publications'. Below this is the UNEP logo and the text 'United Nations Environment Programme'. To the right, the 'UNEP Live' logo is prominently displayed with the tagline 'Tracking the State of Our Environment' and a 'PROTOTYPE' watermark. A secondary navigation bar includes 'HOME', 'REPORTS', 'MAPS & GRAPHICS', 'DATA & INDICATORS', 'EMERGING ISSUES', 'SOE LIVE', and 'MY COUNTRY'. A 'Quick Find' search bar is located below the navigation. The main content area features several interactive widgets: 'Find Reports' with a thumbnail for '11: Growth patterns for cities around the world'; 'Find Maps' with a map of the Ziwa Magharibi region; 'Find Data & Indicators' with a line graph showing trends from 1997 to 2002; 'Identify Emerging Issues' with a map of West Africa; and 'State of the Environment Live' with two circular ozone maps for September 2006 and September 2010, accompanied by a 'Total Ozone (Dobson Units)' color scale from 110 to 550. The footer includes a 'Partners' section with logos for EYE on EARTH Network, AGEDI, European Environment Agency, USA.gov, and esri, along with a link to 'Other Partners'. A disclaimer, privacy, contact, and sitemap link is provided at the bottom center.

NRT is a part of UNEP-Live

- UNEP-Live is a revolutionary new way of monitoring and reporting on the state of the environment
 - linking datasets together automatically through APIs means the most recent data is available when analysing the global state of the environment
 - drill down to national level data sets and indicators
 - compare performance with other countries

Title

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