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CountryData Workshop – Technologies for Data Exchange

Overview of UNSD-DFID Project

Improving the collation, availability and dissemination of development indicators (including the MDGs)



United Nations
Statistics Division

DFID

Department for
International
Development

 Burundi

 Cambodia

 Ghana

 Liberia

 Laos

 Morocco

 State of Palestine

 Rwanda

 Thailand

 Uganda

 Vietnam

Presentation structure

- 1. Introduction to Project**
- 2. Project progress highlights**
- 3. Dissemination model**
- 4. Future Activities**

Project background

- **Bring National and International data under one platform**
- **Improving the collation, availability and dissemination of development indicators**
- **Enable data dissemination using SDMX**
- **11 participating countries**
- **Project started in 2010**
- **Project will finish on June 2014**
- **Sponsor by UK's Department for International Development**

Progress to date

Project activities as at February 2013:

- 7 countries with signed MoU in place**
- 8 SDMX installation/ training missions**
- 6 DSG consultancy missions (4 jointly with UNSD)**
- 3 Metadata national workshops conducted**
- 2 countries made study visits to Thailand and Cambodia**
- 1 XML/XSLT training workshop**

Progress to date

Project outputs as at March 2013:

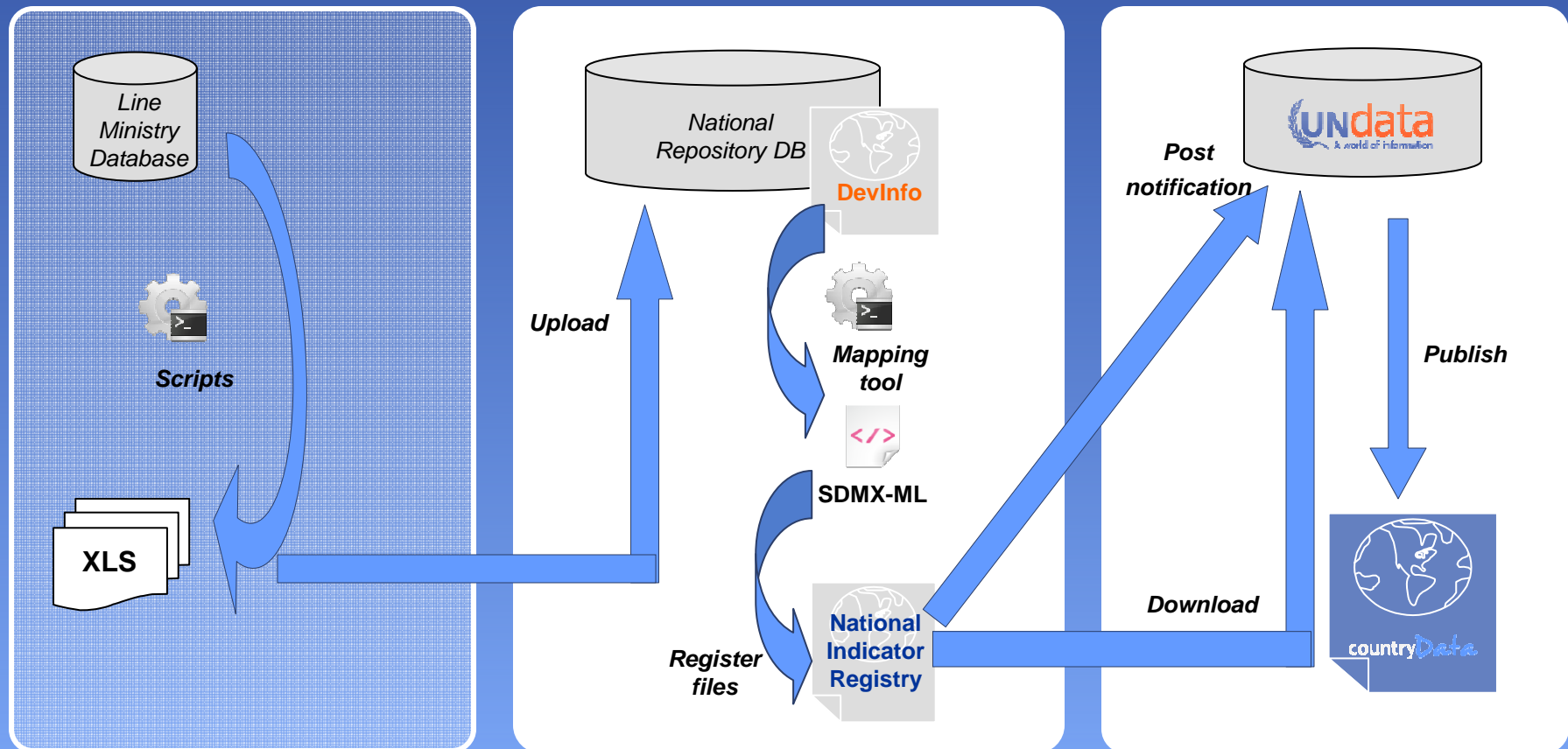
- 10 countries feature in CountryData**
- Over 200 indicators and over 2,000 observations exchanged**
- 2 metadata handbooks / repository completed**
- 149 indicators paired and in 33% of those discrepancy has been explained**

Dissemination model

Line Ministries

National Statistical Office

United Nations



Identification of priority indicators

- **9 countries selected MDGs as starting point**
- **1 country selected set with non-MDGs**
- **But 3 countries looking to expand beyond MDGs**

Data exchange with line ministries

- **7 countries interested in developing this through the project**

- 4 are just interested in/ or in the process of improving the coordination and collaboration

- 3 are also in the process developing the IT tools for data exchange

Central data repository (platform)

- **9 countries are using DevInfo to collate in one place and disseminate online**
- **In October 2012, DevInfo Support Group released DevInfo version 7 Software**
 - Much improved user interface
 - Rich visualization
 - Text search
 - Built-in SDMX Registry
 - CountryData SDMX Mapping Tool
 - Support for SDMX metadata exchange
 - Reviews & deployment rates are positive

Central data repository (platform)

- **Data repository status as of February 2013;**

Country Name	Type	Status	Access from main website	Hosted	Version	Reference Metadata
Burundi	DevInfo	Online	N	DSG	6/7	Y
Cambodia	DevInfo	Online	Y	Local	6/7	Y
Ghana	DevInfo	Offline	Y	Local	6	N*
Lao PDR	DevInfo	Online	Y	Local	6	N*
Liberia	DevInfo	Online	N	DSG	7	N*
Morocco	Other	Offline	N/A	N/A	N/A	N/A
State of Palestine	DevInfo	Online	Y	Local	6/7	Y
Rwanda	DevInfo	Online	Y	Local	6/7	N*
Thailand	StatXchange	Online	Y	Local	N/A	N
Uganda	DevInfo	Online	N	DSG	6/7	Y (Partial)
Viet Nam	DevInfo	Online	Y	Local	6	Y (Partial)

Note: Some reference metadata is available in the database but it refers to international practice and is not country specific

National SDMX Registry

- **Facilitates “pull model” for efficient data dissemination**
- **Sends update notifications to subscribers when data are updated**
- **Enables automated data and metadata transfers**
- **Implemented in 9 project countries**
- **Most project countries use DevInfo v7 Registry**

Mapping tool

- **To enable SDMX exchange, data and metadata need to be mapped to a given SDMX structure and exported out of the database.**
- **Mapping and export processes were difficult and convoluted in DevInfo 6.**
- **At UNSD's request, DSG developed a Mapping Tool to facilitate SDMX exchange.**

Mapping tool

The screenshot displays the DevInfo Mapping tool interface. At the top, there is a navigation bar with 'DevInfo WorldWide', 'Catalog', 'News', 'Innovations', 'Support', 'Contact Us', 'Logout', 'Admin Panel', and a language dropdown set to 'English [en]'. Below this is the DevInfo logo and a secondary navigation bar with 'Home', 'Catalog', 'My Data', and 'Gallery'. The main content area is titled 'Data Structure Definition In Use' with a dropdown menu showing 'CountryData[UNSD, 1.3]-SDMX-CountryData' and a text field for 'Id[AgencyId, Version]- Name'. A series of buttons includes 'Data Structure', 'Metadata Structure', 'Subscribe', 'Validate', 'Web Services', 'Users', 'Mapping', 'Maintenance Agency', 'Publish Data', 'Discover Registrations', and 'Register'. The 'Mapping' section is active, showing a sub-section for 'Mapping of DevInfo against UNSD Codelists'. A left sidebar contains 'Codelist', 'IUS', and 'Metadata'. The main content area has a sub-section 'Indicator Mapping' with a table of mappings. Below it is a 'Unit Mapping' section, also with a table. The tables have columns for DevInfo Indicator/Unit, Indicator Gids/Unit Gids, UNSD Indicator/Unit, and Indicator Ids/Unit Ids. The 'Indicator Mapping' table lists indicators like 'Adult literacy rate', 'Adult literacy rates', 'Aeronautical charges per year', 'Age-specific fertility rate', 'Age-specific fertility rate (ASFR)', and 'Age-specific fertility rate (for the 0-4 years)'. The 'Unit Mapping' table lists 'Billion cedis'.

Mapping of DevInfo against UNSD Codelists
Mapping of DevInfo Codelists' codes against UNSD Codelists' codes. The indicators mapped here govern the number of IUS that are shown on IUS Mapping screen. These mappings are also used to preselect values on IUS Mapping screen.

Indicator Mapping

Show All | Mapped | UnMapped | UnSaved

DevInfo Indicator	Indicator Gids	UNSD Indicator	Indicator Ids
<input type="text" value="Search Indicator"/>			
Adult literacy rate	0039258e-5a46-4ee6-8d6f-6f7af6ef7fcc	Select	
Adult literacy rates	6eda6c53-a32d-4b5c-948e-4104c8256daf	Select	
Aeronautical charges per year	d31dc8ec-46f5-474b-9755-a24f0f5672d2	Select	
Age-specific fertility rate	924107bd-d10c-407e-baac-c66aad689607	Select	
Age-specific fertility rate (ASFR)	115ba866-af8e-4f80-8c5a-4834a43178f6	Select	
Age-specific fertility rate (for the 0-4 years	4f32bf33-1e2e-4f85-8488-...	Select	

Unit Mapping

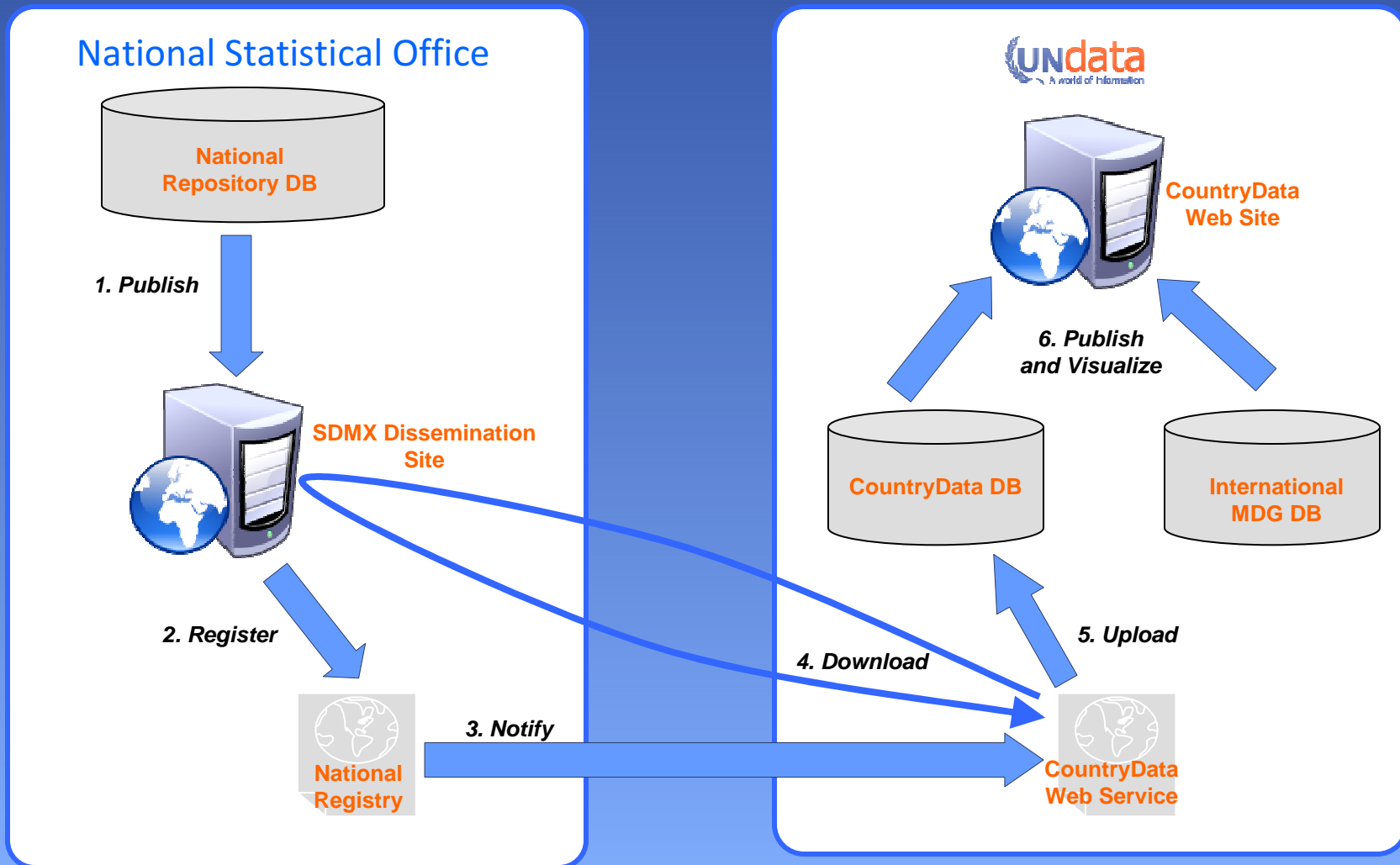
Show All | Mapped | UnMapped | UnSaved

DevInfo Unit	Unit Gids	UNSD Unit	Unit Ids
<input type="text" value="Search Unit"/>			
Billion cedis	6f07582b-961f-4d48-a934-ebf11b217e7e	Select	

Mapping tool

- **Visual interface that facilitates the mapping of internal database structures and codes to CountryData/MDG Data Structure Definition.**
- **Process greatly simplified over DevInfo 6.**
- **Proficiency in SDMX is not required.**
- **Once mappings are in place, data can be easily exported into SDMX and transferred to CountryData and other data consumers.**

CountryData SDMX Data Exchange



Home-grown Solutions

- **Thailand's advanced data exchange system, StatXChange, was ported to SDMX with UNSD assistance. Metadata Technology's Fusion Registry was installed to facilitate data sharing, which went live in November 2012.**
- **Morocco is in the process of upgrading its own indicator database, BDS. Work is well underway to export BDS data into SDMX and establish data exchange with CountryData.**

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- Officially launched April 2012, CountryData increases the visibility of country development indicators
- Part of, and linked to, UNdata (over 200,000 hits a month)
- Provides re-dissemination and data visualization
- Platform to assess country indicators against similar international sources

Discrepancy analysis

- **Once in the CountryData database, national development indicators are matched with international MDG series.**
- **Discrepancies are investigated and reported on the Web site.**
- **Reference metadata crucial in explaining discrepancies.**

CountryData Admin Site

- **Back-end system for CountryData**
- **Facilitates discrepancy analysis, and data transfer monitoring**
- **Work is underway to extend data transfer monitoring to the countries.**

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Metadata workshops

Metadata workshops

- **Aim is to broaden metadata exchanged and disseminated in NSS, and ultimately improve the way development indicators are communicated**
- **Continue to conduct metadata workshops in project countries with participants from across National Statistical System (NSS)**
- **Follow-up with further training once a first draft of the metadata handbook / document is complete**
- **Continuous process, shouldn't stop with publication of a handbook**

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SDMX workshops

International workshops

- **Aim is to share experience between countries and build on what was learned in previous workshops**
- **Follow-up workshops are planned for later in the year and early next year, to be held in the African region.**

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More indicators, more metadata
and more discrepancies explained

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- **Establish data and metadata exchange with remaining 1 country.**
- **Expand the number of indicators (including non-MDGs), time series and observations exchanged with existing countries.**
- **Resolve mapping and other issues.**
- **Expand the functionality of CountryData site.**

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Further development & installation
of IT

Local installation

- **Local installations need to be upgraded to version 7**
- **Internal database inconsistencies may prevent data export to SDMX.**
 - e.g. incorrect subgroup values in DevInfo
- **Some data structures are difficult to unambiguously map to MDG SDMX.**
 - We are working to mitigate this issue
- **Updates to national databases are not always followed by data publication at an SDMX Registry.**

Thank you for your attention

Sources of further reference:

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<http://data.un.org/countrydata>

MDG Labs

<http://unstats.un.org/unsd/mdgLabs>



<http://data.un.org>



United Nations
Statistics Division

<http://unstats.un.org>