

NATIONAL PILOTING OF INDICATOR TOOLS AND STANDARDS

DATA ARCHITECTURE AND COMMUNICATION



DevInfo was a groundbreaking product.

It set the bar low to encourage indicator publishing.

Maybe a bit too low.

Didn't support or enforce standard structures or code lists:

- Too easy to create duplicate codes.
- Too easy for codes to differ across reporting cycles.
- No support for validation.

Some classic examples...

XUNIT_MEASURE_en	change
41 choices Sort by: name count	Cluster
Deaths per 1,000 live births 327	
Deaths per 100,000 live births 29	
Deaths per 1000 live births 251	
Fixed Deposits in Riels 20	
Fixed Deposits in Riels (Weighted Average Rate) 20	
Ha 46	
Hectares 16127	
Km 35	
Kwh 13	
Live births per 1,000 population 12	
Live births per 1,000 women 80	
Live births per woman 101	
Males per 100 Females 818	
Million heads 141	
Million Kwh 39	
Million Riels 847	
Million US Dollar 385	
Million USD 39	

With the end of MDGs + DevInfo,

How to work with partner countries on SDGs?

SDGs + ???

We took a step back to have a good look at the situation. The behaviors a tool enables are more important than the features it supports.

Its qualities are more important than its functions.

Some people like to call these the "-ilities".

What behaviors or qualities are desirable in a tool that manages indicators?

Standards

support for standards, like SDMX

Integrity

internal consistency of data, like supports data types (double)



external consistency, like can check against other data

Validity enforcement of constraints, like conforms to a schema

Verifiability

formally tests for correctness of data, like can check if conforms

Versionability

recognizes multiple expressions of the same data, like 1.1, 1.2.1

Durability

a version of data is immutable, like changing a code means you have a new schema version

Reusability

artifacts in the system can be easily shared, like a code list

Exchangeability

Easy to shard with other systems, like a data set or data structure

How did **DevInfo** measure up?

Poor support for many desirable qualities.

So we needed a new tool.

But we also needed a standard.

Standards we realized, are more important than tools.

SDMX is the UN preferred standard for statistical data exchange.

There is a reason for that.

It supports behaviors that encourage quality data.

Wait, but didn't DevInfo support SDMX?

Sort of.

It was a retro-fit supporting a tiny part of the standard.

And only as an output format.

We had settled on our standard:

SDMX.

Now, what tool could we use that would strongly support it?

Some more lessons learned...

- It takes a long time to build your own tools.
- It costs a lot of money to buy other people's tools.
- Vendor lock-in can make maintenance painful.

So what's the solution?

Again, we took a step back to see the big picture.

We realized we shared statistical processes with many other agencies and NSOs.

And so we joined SIS-CC.

A standards-first, tool-sharing community.

But most partners were **big**, international agencies or OECD-member NSOs.

Could the community serve a wider range of partners?

We decided to find out.

.StatSuite Pilot - UNICEF, OECD, Paris21 Two workshops in Cambodia

- **1st** SDG and Education indicators modeled and migrated.
- **2nd** Demography indicators modeled and migrated.

	🔁 upload structures 🎦 upload data 🛛 🏠 🌲 🐼 💽 dotstat 🛛 English Français Arabic
Filter by spaces	Q I'm looking for T Y A Type 14 artefacts out of 14 K <
Filter by external sources	Codelist Age groups [CL_AGE_GROUP] [1.0] KH_NIS
Filter by owner	Codelist Area code list [CL_REF_AREA] [1.0] KH_NIS
Q I'm looking for	Codelist Degree of urbanisation code list [CL_LOCATION] [1.0] KH_NIS
MA_545 KH_NIS	Codelist Demography indicators [CL_DEMO_INDICATOR] [1.0] KH_NIS
Filter by types	Codelist Frequency CL_FREQ] [1.0] KH_NIS
Agency scheme Attachment constraint	Codelist Mother tongues [CL_MOTHER_TONGUE] [1.0] KH_NIS
Category scheme Categorisation Codelist	Codelist Observation Status [CL_OBS_STATUS] [1.0] KH_NIS

	ষ্টিম্বা ক্ষুমেন্টা ক্ষুমি স্বিদ্ধি স্বিদ্ধ				English		
	Agriculture Education Economy Tourism						
	Agriculture Yield Fisheries Forestry Livestock	Education Educational Characteristic	Economy GDP Consumer Price Index Poverty	Tourism Visitor			
	Demography Population	Employment Child Labour	Health and Nutrition Maternal Survival	SDG Indicators			
Built by	🙀 SIS-CC using .Stat Suite		It covers a subset of the final ex	This is a beta version of the .Stat Data pected features and is designed for test purpo	Explorer. ses only.		

ອິຊຽາຊຽາລະປາສີຜູ້ສີ National Institute of Statistics														English
NATIONAL INDICATOR REPORTING PLATFORM														
Home > Search results (1 result) > Demography indicators														
Used filters Indicator × Population size ×	Show: Table Chart	•							С	🔅 ustomise Do	یک ownloa	ି d API que	ries	پ Full screen
Period 1970 - 2020	 Demography indicators Indicator: Population size • Responsible agencies: MoP, NIS • Fequency: Annual Person 													
Indicator 0/13		Time period		2008		2009		2010		2011		2012		2013
	Reference area													
Adult mortality rate	Sex: Female • Location: Total													
Fertility rate	Cambodia		(A,)	6,879,628	(A,)	7,225,568	(F.)	7,328,785	(F,)	7,432,584	(F,)	7,537,248	(F,)	7,642,479
Crude birth rate	Banteay Meanchey		(A.)	346,157	(A.)	365,164	(F.)	372,192	(F.)	379,382	(F.)	386,662	(F.)	394,013
Dependency ratio	Battambang		(A.)	518,823	(A,)	547,156	(F.)	557,225	(F.)	567,400	(F.)	577,724	(F.)	588,165
Internal migrants in the place of enumerat	Kampong Cham		(A,)	861,330	(A,)	892,302	(F.)	892,312	(F,)	891,858	(F,)	891,043	(F,)	889,878
Life expectancy at birth	Kampong Chhnang		(A.)	245,334	(A,)	257,562	(F.)	261,148	(F.)	264,714	(F.)	268,219	(F.)	271,659
Population size	Kampong Speu		(A,)	368,432	(A,)	385,524	(F.)	289,357	(F,)	393,020	(F.)	396,574	(F,)	400,013
Population density	Kampong Thom		(A,)	323,685	(A,)	337,323	(F.)	339,315	(F.)	341,127	(F.)	342,800	(F.)	344,342
· · · ·	Kampot		(A,)	301,727	(A,)	313,061	(F,)	313,765	(F,)	314,567	(F,)	315,512	(F,)	316,604
Reference area 0/1871 V	Kandal		(A,)	652,588	(A,)	683,936	(F.)	692,605	(F,)	701,583	(F.)	710,816	(F,)	720,260

<!-- NSI Web Service v6.13.1 --> ▼<message:Structure xmlns:message="http://www.sdmx.org/resources/sdmxml/schemas/v2 1/message" xmlns:structure="http://www.sdmx.org/resources/sdmxml/schemas/v2 1/structure" xmlns:common="http://www.sdmx.org/resources/sdmxml/schemas/v2 1/common"> ▼<message:Header> <message:ID>IDREF1</message:ID> <message:Test>false</message:Test> <message:Prepared>2018-12-09T21:10:12.4862516-08:00</message:Prepared> <message:Sender id="Unknown"/> <message:Receiver id="Unknown"/> </message:Header> ▼<message:Structures> ▼<structure:Dataflows> v<structure:Dataflow id="DF_DEMO" urn="urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=KH_NIS:DF_DEMO(1.0)" agencyID="KH_NIS" version="1.0" isFinal="false"> ▼<common:Annotations> ▼<common:Annotation> <common:AnnotationType>NonProductionDataflow</common:AnnotationType> <common:AnnotationText xml:lang="en">true</common:AnnotationText> </common:Annotation> </common:Annotations> <common:Name xml:lang="en">Demography indicators</common:Name> ▼<structure:Structure> <Ref id="DEMO DSD" version="1.0" agencyID="KH NIS" package="datastructure" class="DataStructure"/> </structure:Structure> </structure:Dataflow> </structure:Dataflows> ▼<structure:CategorySchemes> v<structure:CategoryScheme id="CAM CAT" urn="urn:sdmx:org.sdmx.infomodel.categoryScheme.CategoryScheme=MA 545:CAM CAT(1.0)" agencyID="MA 545" version="1.0" isFinal="false"> ▼<common:Annotations> ▼<common:Annotation> <common:AnnotationType>CategoryScheme node order</common:AnnotationType> <common:AnnotationText xml:lang="en">0</common:AnnotationText> </common:Annotation> </common:Annotations> <common:Name xml:lang="en">Topics - Cambodia</common:Name> ▼<structure:Category id="AGRI" urn="urn:sdmx:org.sdmx.infomodel.categoryscheme.Category=MA 545:CAM CAT(1.0).AGRI"> <common:Name xml:lang="en">Agriculture</common:Name> v<structure:Category id="YIELD" urn="urn:sdmx:org.sdmx.infomodel.categoryscheme.Category=MA_545:CAM_CAT(1.0).AGRI.YIELD"> <common:Name xml:lang="en">Yield</common:Name> </structure:Categorv>

</structure:Category>

</structure:Category>

v<structure:Category id="FISH" urn="urn:sdmx:org.sdmx.infomodel.categoryscheme.Category=MA 545:CAM CAT(1.0).AGRI.FISH">

Some key takeaways:

- Take indicator management out of the hands of IT and put it into the hands of subject matter experts.
- SDMX is not hard to learn when you are doing it with your own data.
- Tools do not yet fill some important parts of the statistical process.

Future Plans:

- 3rd Cambodia Workshop Next week, to further model domains.
- Gather additional resources to embed SDMX and .StatSuite as part of the Cambodian indicator toolkit.
- Pilot approach in additional countries.

Standards first!

Tools second.

unicef (2) for every child

http://bit.ly/DotStatPilot

Thank You / Yves Jaques / yjaques@unicef.org