Progress Made on the US Sub-national Reporting Platform: Three Practical Suggestions from National Experiences

Kali Kong, Economist/Special Assistant
Office of the US Chief Statistician
UNECE CES: Second Expert Meeting on Statistics for SDGs
Palais de Nations, Geneva, Switzerland, April 18-19, 2018

US National Reporting Platform

MEASURING AMERICA: U.S. STATISTICS FOR SUSTAINABLE DEVELOPMENT

Official US Federal Statistics for the UN Sustainable Development Goals
START HERE
Suggestion #1: Do not reinvent the wheel

Non-Negotiable Criteria #1

open source
Non-Negotiable Criteria #2

Components of US NRP

GitHub

jekyll

Leaflet

Prose

CHARTIST.JS
Suggestion 2: Start with what you know

Data Visualization

- Time-series sub-national indicators add another dimension to consider…

- Choropleth (sometimes referred to as fill) maps style areas based on data values. Choropleths are great when you have a range of values across geographic regions, like a map of the 50 U.S. States + District of Columbia (DC).
**Data Visualization**

- **Tile-based (Leaflet)**  
  Tile-based solutions have the advantage of more choices of imagery (such as streets, terrain, satellite, etc.), but they carry an additional "moving part" by requiring the use of a tile server. There are free tile-servers for light use, like Open Street Maps, but it might be a complication.

- **Vector-based**  
  Vector-based solutions outline the map and fill the regions with color. Since we will presumably be exclusively displaying "choropleth" maps, this is probably all that we need.

**Data-Driven**

**COMPARABLE TO SDG 8.1.1**  
Real GDP Per Capita by State (chained 2009 dollars)

|------|-------------|---------|--------|---------|----------|-----------|----------|------------|---------|---------------------|---------|---------|--------|-------|----------|---------|------|--------|----------|----------|--------|--------|--------------|---------|---------|---------|--------|----------|--------|-------|--------|----------|----------|--------|------------|---------|----------|---------|--------|----------|--------|----------|---------|----------|---------|--------|---------|---------|----------|---------|----------|---------|---------|
U.S. Economy

2000

U.S. Economy

2001
U.S. Economy

The image shows maps of the U.S. Economy for the years 2002 and 2003, indicating different economic conditions across the states.
U.S. Economy

U.S. Economy
Suggestion #3: Test data should have wide coverage

<table>
<thead>
<tr>
<th>Status:</th>
<th>SDG Indicator</th>
<th>Data Source</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Done</td>
<td>Poverty</td>
<td>Percent of US Population living below the US Poverty Line</td>
<td>Census Bureau</td>
</tr>
<tr>
<td>Done</td>
<td>Food Security</td>
<td>Percent of households with food insecurity in the US</td>
<td>ERS/USD</td>
</tr>
<tr>
<td>Pending</td>
<td>Education</td>
<td>Percentage of 5 years olds enrolled in prekindergarten, kindergartens, at first or higher grade</td>
<td>NCES</td>
</tr>
<tr>
<td>Done</td>
<td>Gender Equality</td>
<td>Percent of US women ages 14 and older in full-time, civilian management occupations</td>
<td>Census Bureau</td>
</tr>
<tr>
<td>Done</td>
<td>Clean Water</td>
<td>Percent of US population that receives drinking water from community systems</td>
<td>EPA</td>
</tr>
<tr>
<td>X</td>
<td>Energy</td>
<td>US renewable energy consumption as a percentage of total final energy consumption</td>
<td>EIA</td>
</tr>
<tr>
<td>Done</td>
<td>Economic Growth</td>
<td>US annual growth rate of per capita GDP in chained 2012 dollars</td>
<td>BEA</td>
</tr>
<tr>
<td>Done</td>
<td>Employment</td>
<td>Unemployment rate by sex and by age</td>
<td>BLS</td>
</tr>
<tr>
<td>Pending</td>
<td>Infrastructure</td>
<td>US passenger-kilometers by mode of transport</td>
<td>DOT</td>
</tr>
<tr>
<td>X</td>
<td>Sustainable Cities and Communities</td>
<td>Percentage of occupied housing units in US urban areas that are severely lacking</td>
<td>HUD/NCSCA, Census Bureau</td>
</tr>
</tbody>
</table>
Issues: Scaling
Next Steps:

- **EnviroAtlas** (US EPA) is a web-based tool that combines maps, analytic tools, and interpretive information on ecosystem services.
- **Geonode** is a geospatial data collaboration platform that is open source; used by UN, EU, World Bank, etc. [http://geonode.org/gallery/](http://geonode.org/gallery/)
- **MapBox**, also a member of the Global Partnership for Sustainable Development Data, has offered to support SDG NRP platforms.
- **Carto**, once a member of Vizzuality, has experience with projects like SDG NRPs.
- **Boundless**, maintains GIS, used by governments, NGOs, etc.
- **OCG**, sets interoperable open standards for GIS

---

**EnviroAtlas: SDG 15.1.1 for NYS and NYC**

Global SDG Indicator – 15.1.1 Forest area as a proportion of total land area

EnviroAtlas Indicator – Percent forest cover or Percent tree cover

![Map showing forest area in NYS and NYC](image)
EnviroAtlas: SDG 11.1.1 for NYS and NYC

Global SDG Indicator – 11.1.1 Proportion of urban population living in slums, informal settlements, or inadequate housing

EnviroAtlas Indicator - Percentage of households below the quality of life threshold income (National, BG)

Questions?