Building a Local SDG Data Monitoring System for Baltimore: Insights from the US National Reporting Platform and New York City

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INTRODUCTION

Under the USA Sustainable Cities Initiative (USA-SCI), Baltimore completed a report entitled "Baltimore's Sustainable Future: Localizing the UN Sustainable Development Goals, Strategies and Indicators", which recommends local indicators for achieving the Global Sustainable Development Goals (SDGs) in Baltimore. The report includes baseline data for each of the indicators and is available in static graphics online at www.ubalt.edu/about-ub/sustainable-cities.

To prepare a system for disseminating interactive, updated data on the proposed indicators in Baltimore, the Baltimore Neighborhood Indicators Alliance—Jacob France Institute (BNIA-JFI) analyzed the US National Reporting Platform (NRP) and other data monitoring systems in cities such as New York City and interviewed staff working on these systems. BNIA-JFI also consulted other partners in the US Sustainable Cities Initiative, the US Office of Management and Budget, which is responsible for developing the NRP, the US State Department, which is interested in deploying the NRP to other nations and potentially local jurisdictions within the US, and the National Neighborhood Indicators Partnership which comprises 30 US localities including Baltimore. The assumption is that for US cities with their own indicator monitoring systems, such as the one BNIA-JFI hosts for Baltimore, existing local metrics may be well-aligned with the global SDG goals, targets, and indicators; potentially re-branding them as local SDG indicators can help cities better connect their efforts to global urban agendas and resources. The findings from this issue brief could also help cities with open data portals, such as OpenBaltimore (data.baltimorecity.gov), as they prioritize online data publishing to support tracking local SDGs.

THE ISSUE

During the Sustainable Cities consultative process in Baltimore, two of the guiding principles for choosing indicators were: 1) data to calculate the indicators should be accessible and from a valid, reliable source; and 2) baseline measures should be recurring in order to be tracked over time. Many of the indicators chosen for Baltimore come from local sources of data, not from national sources. With the growth of open data portals at the local level, the question for Baltimore and other cities working to localize the SDGS is how feasible (in terms of cost and time) would it be to

create a reporting platform that provides real-time, interactive data for stakeholders to locally monitor progress towards achieving the SDGs.

THE SOLUTION: TWO EXAMPLES

Developing a data reporting platform requires two kinds of major work processes for the input and the utility of the information. These two processes include: 1) relevant (typically raw) data to be collected and made available via an open data portal or another retrievable process and 2) a website that provides a curated or summarized view of the data for users to quickly visualize actionable information. This second part also generally involves convening stakeholders to coordinate strategies to achieve data-driving results. These two parts of the process require different skills and often leadership or some kind of mandate to ensure they work together in a sustainable way. For example, building a website requires the expertise of a developer, but if the data are not made routinely available by agency staff, then the website will quickly become outdated. The impetus for convening stakeholders over time will be less effective if tracking outcomes such as those associated with the SDGs becomes difficult. This issue brief provides details on two kinds of projects that ensure both the availability of data as well as the consistent view of actionable data through a reporting platform.

DATA SHARING IN NEW YORK CITY

In New York City, the municipal Open Data Law mandates that all agency data should be made open by 2018. While there is no legal prioritization of which dataset should get published at what time, the Mayor's management System (MMR) requires a process where every agency audits data and performance metrics to report on mayoral priorities for service delivery. Publishing to the open data portal is also largely dependent on the capacity of each agency to upload and maintain the data. Each agency has an Open Data Coordinator (ODC) to develop that capacity through the MMR process; there are currently 46 ODCs in NYC. The city's open data portal is also maintained by two data scientists in the Mayor's Office of Decision Analytics and technical support from staff in the Department of Information Technology.

The City has a few platforms that use the open data portal to visualize data. One example is Vision Zero NYC (http://www.nycvzv.info/) which uses the portal's API to provide a specific view to provide

relevant and timely data on a specific problem (auto and pedestrian accidents). The interactive map displays data on incidents around the city so that the City, elected officials and neighborhood groups can monitor progress towards zero accidents per year.

NATIONAL REPORTING PLATFORM AND OPEN DATA

The US National Reporting Platform (NRP) is a project developed in collaboration with the US Office of Management and Budget, Office of Information and Regulatory Affairs; the US Department of State, Office of International Organizations; the US General Services Administration; and the US Office of Science and Technology Policy. The beta version of the website is available at https://sdg.data.gov/. Where possible, the NRP includes baseline data directly from the US Government's open data portal (www.data.gov) for the US official statistics starting from 2015. The code developed for the NRP website is available on GitHub for developers to potentially use for local reporting.

For the NRP, staffing includes a platform architect (master web developer), a web developer, a senior statistician, a data scientist and training coordinator, and a statistician. The full team reports to the senior statistician. Overall, on average, management and updates require very minimal time of full time staff. However, the US team probably spend on quarter of their time on outreach and training work, as well as on enhancements to the platform.

STRENGTHS AND WEAKNESSES

With advances both in open data portals at all governmental scales as well as a growing community of civic technologists who support open-sourced website development, the National Reporting Platform for the SDGs is a welcomed advance for local jurisdictions to interactively track progress on the Global Goals. Similar to the Vision Zero NYC example, there are 3 tasks with launching and managing an NRP application:

1. Build the platform;

2. Input statistics and metadata from an open data portal into the platform; and

3. Manage updates regarding both the functionality and data in the platform.

While the NRP was built using open-sourced code, which reduces the costs of acquiring proprietary software, there are significant staffing requirements for a local jurisdiction to input data and maintain the statistics on a data portal, as well as build a local platform employing the NRP program. The list of potential staffing needs are noted below:

- To fork from where the code is located on GitHub and customize, one full-time web developer familiar with Github and Ruby is needed for at least one week. If the developer is new to implementing these kinds of programs, then double the time will be needed.

- To input the statistics and metadata into the platform, at least one statistician or data scientist is needed to identify available data and collate needed metadata. For the NRP, 35 data providers were trained at different statistical agencies. Each keyed in their agency's statistics and metadata.

- To maintain the platform, a manager is needed to coordinate staff and schedules. The manager should have authority to report official statistics on behalf of the jurisdiction. This is an ongoing task that takes about a 1/4 full time senior statistician, depending on the rate of updates.

Ultimately, strong leadership and multi-sector collaboration is required to sustain this level of staffing and project coordination and, more importantly, convening of stakeholders to use the platform to work towards progress and monitoring of the SDGs.

ADDITIONAL GUIDANCE

The Office of Management and Budget which is the agency responsible for development of the NRP has several accompanying technical supports for other entities to use the code. This Quick Start Guide contains several resources for anyone involved to begin: https://gsa.github.io/sdg-indicators/assets/documents/Quick%20Start%20Guide%2004.28.17.pdf

The Open Data Enterprise issued a report in January 2017, which recommends increased technical capacity and support for the NRP, increased user feedback, and applying the NRP to improve the SDG indicators and their relevance. For more information the U.S. SDG Data Revolution Roadmap Roundtable Report is available online at: http://reports.opendataenterprise.org/us-sdg-report.pdf

Founder of the National Neighborhood Indicators Partnership and Senior Fellow at the Urban Institute, Tom Kingsley, writes in a February 2017 report (A Broader View of the Data Revolution) that the sources of data to potentially feed into an open data portal cannot rely on surveys alone: http://www.urban.org/research/publication/broader-view-data-revolution-and-development-agenda

The Urban Institute also issued a 2017 report (Hacking the Sustainable Development Goals Can US Cities Measure Up?) with detailed analysis highlighting the scale of data gaps at the local level to monitor the SDGs: www.urban.org/research/publication/hacking-sustainable-development-goals.