



GSDI – Creating a Global Index of National Spatial Data Infrastructures

Introduction

The need for an integrated agenda across the environment, economic, and social sectors is encapsulated in the UN Agenda 2030 and the Sustainable Development Goals (SDGs). The SDGs, along with most other international agreements, require spatial evidence to monitor and assess progress towards the targets. A report by the UN Sustainable Development Solutions Network notes that more than two-thirds of the SDG indicators can (and should) be visualised spatially, especially at the sub-national scale. To achieve this, however, a country needs to have the underpinning and supporting infrastructure to allow spatial data to be accurate, transparent, open, and interoperable - something that a National Spatial Data Infrastructure (NSDI) can help achieve. We should for this reason and many others, therefore, be investing in the strength of a country's ability to transparently collect, manage, and share spatial data through their NSDI. Despite this, there is currently neither an available global measure of a country's NSDI to perform these functions, nor a way to identify where improvements need to be targeted.

Aims

The GSDI project to create a global index of National Spatial Data Infrastructures proposes a set of indicators to score NSDI globally. The index consolidates and condenses a large body of scholarship and experience on NSDIsⁱ into a set of key components that can be assessed and benchmarked using six indicators. The index will provide a top-level, multi-actor assessment and is intended to both support and stimulate more detailed assessments for regions of the globe where strong transnational planning capacity is vital and urgent for users.

Work Completed

- A discussion paper published by the Smith School of Enterprise and the Environment ([here](#)) [1] outlines the need and use case for a GI-NSDI.
- A report published by World Wildlife Fund-UK ([here](#)) [2] built a comprehensive picture of how vital open, accurate, and transparent spatial data are to land use planning and biodiversity conservation projects, and has researched where any barriers to improvement are.
- A workshop and presentation at the GSDI Global Conference in Taiwan (2016) introduced the work to key stakeholders and held a lively discussion around indicators and NSDI.

Method and Next Steps

The Index will be pilot tested on a selection of 10 to 15 countries and the results, along with the proposed index will be published and presented in an academic paper. The Index will be rolled out globally using an online platform hosted on the GSDI website. The results, without weighting, analysis or conclusions being drawn, will be made available as an overall averaged score from all responders to give the index value for each country.

How can you help?

We like you to provide contact details for people in your country who we could approach to complete a web survey based assessment of your NSDI.



Conclusion

Ultimately, the scoring that a comprehensive and stakeholder relevant index provides will allow investment and decision making to be directed towards any weak or problematic areas of NSDI development. It will promote collaboration and motivation between government departments and other stakeholders to improve their spatial data quality, management and availability. There is also the potential for the Index to raise awareness of potential barriers to a country effectively reporting spatial data evidence to the Sustainable Development Goals and other international agreements.

Links:

[1]<http://www.smithschool.ox.ac.uk/research-programmes/protected-area/Chandler-NSDI-DiscussionPaper.pdf>

[2] <https://www.wwf.org.uk/what-we-do/projects/developing-spatial-data-and-transparency>

¹ Georgina Chandler, Joep Crompvoets, Paul Jepson, et al.,