Future National Geospatial Agencies: Shaping their Contribution to Society and the Sustainable Development Goals

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SUMMARY

'Geospatial is like a general-purpose technology; it's the oil for the next generation of the digital economy.' Nigel Clifford, CEO Ordnance Survey, opening Quadrennial Cambridge Conference, July 2017

Fundamental geospatial data is part of a nation's digital infrastructure. Improved availability of this geospatial foundation data leads to opportunities for better and targeted government services, more transparency, effective urban planning, improved resilience, increased resource/asset and environmental management, and new business opportunities. It is also essential in delivering and monitoring sustainable development goals (SDG). But in developing nations little investment is being made into national geospatial capabilities, the arguments still need to be won.

According to the UN Statistics Division, only 3% of Africa is covered at 1:25k scale, against 87% of Europe. For national coverage a number of nations use mapping from the last century, perhaps 1:50,000 scale at best, but neither maintained nor digital. Compare that with Singapore, maintaining large scale, attributed and accurate data from addressing to topography, imagery to networks. There is a widening geospatial divide, in itself contributing to the widening digital divide.

This paper demonstrates why geospatial data is necessary for efficient and effective SDG implementation and examines some of the key drivers necessary to make the national change necessary to deliver and use better data. It will focus on key national policy changes and institutional arrangements to release value that already exists and look at how other aspects of national spatial data infrastructure (NSDI) can be sustainably implemented. It will draw upon the findings of the 2017 Cambridge Conference, where national mapping, cadastre and geospatial

leaders debated these very points.

What are the challenges? (1) Fiscal commitment; but innovative approached can reduce this, far more important in the first instance is demonstrating 'value'. (2) Capacity to make sometimes significant change. (3) Political Commitment and lastly, (4) a market ready and willing to use it.

To acknowledge the value geospatial data presents, it needs to be regarded as infrastructure; an infrastructure that is reliable, efficient, accurate and trusted, which comes with a return on investment. Therefore decision-makers ultimately require an understanding of the direct and indirect benefits, government revenue generation and economic value.

A full-blown NSDI implementation is not necessary to start the journey, indeed in many nations SDI's have not progressed, largely because the value has not been 'sold' to decision makers. Three components of an SDI, when worked together, can make a real difference: (1) Leadership and policy, particularly on standards (2) sharing trusted data and (3) people trained to manage and use the data.

Globally the geospatial community continues to transform as the world increasingly uses location to unlock value. Disruption sees new ideas, new providers, often bypassing the traditional surveying and mapping authority. The mantra 'evolve or die' has never held so true to national mapping and geospatial authorities (NMGA) everywhere. This paper will explore how NMGAs can remain a key element in the national infrastructure in the context of the SDGs.