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Urbanisation:

New World Bank and European Commission map shows that 95% of the world's population lives on 10% of the land

A new global map released today by the European Commission's Joint Research Centre and published in the World Bank's World Development Report 2009, measures urbanisation from the new perspective of *Travel Time to 8,500 Major Cities*. *The map fills an important gap in our understanding of economic, physical and even social connectivity.*

In the absence of agreement on the meaning of "urbanisation", the European Commission and the World Bank are proposing a new definition based on a unique mapping of "Accessibility" called the *Agglomeration Index*.

Key findings suggest that:

- we passed the point at which more than half the world's populations live in cities around the turn of the Millennium (2000) - much earlier than the 2007/8 estimate;
- more than half of the world's population lives less than 1 hour from a major city, but the breakdown is 85% of the developed world and only 35% of the developing world;
- 95% of the world's population is concentrated on just 10% of the world's land; but
- only 10% of the world's land area is classified as "remote" or more than 48 hours from a large city.

Quotes

Commenting on the release of the new map, European Commissioner for Research, Janez Potočnik said: *"The latest computer-aided mapping and modelling technologies, such as those developed by the Joint Research Centre, paint a unique picture of our planet - a picture that shows how increasingly connected we all are, especially within Europe. This brings home just how important it is to manage our resources, lifestyles and economies in a sustainable manner."*

Indermit Gill, Director of the World Development Report 2009 commented: *"Economic growth requires changes not just in what people do but also changes in where they live, learn, and work". He added: "This map is a real first and provides a stunning snapshot of the decline of distance, enabling places and people to prosper."*

Leen Hordijk, Director of the Institute for Environment and Sustainability of the EC's Joint Research Centre, whose scientists prepared the new map, commented: *"We have risen to the challenge of combining various information sources with the latest mapping technologies to produce a unique and timely product for the World Bank. Our map raises the question: For how much longer will remote ecosystems remain remote? Many are crucial to the healthy functioning of our planet."*

How does the mapping work?

Digital maps of road, river and rail transport networks, population data, satellite-derived maps of land cover and terrain and information on border crossing times are combined using advanced geographical modelling techniques. For example, the time it takes an individual to travel to a city from 100 km away is calculated from precise knowledge of the terrain he or she must cross whether it is by foot, road, rail or river.

Taking scientists twelve months to complete, the result is a global map of travel time to over 8,500 major cities. This, in turn, allows scientists to establish a new globally consistent measure - the Agglomeration Index - which will facilitate the work of the World Bank and other international organisations when monitoring the effects of urbanisation.

The world's population is concentrating in cities

The human population is more concentrated than ever before. Europe's urban sprawl gradually fades as we move eastwards into the steppes of central Asia, soon to re-emerge into the dense networks of people and places in India, China and Japan. The attraction of Australia's coasts is dramatically revealed, while North America appears to adopt a grid system not just for its streets and road networks, but for distribution of the cities themselves.

Cities exercise enormous control over national economies - even the global economy. They provide jobs, access to the best cultural, educational and health facilities and they act as hubs for communication and transport. Of course, they also cluster massive demands for energy, generate large quantities of waste, and concentrate pollution as well as social hardship.

Redefining 'urban'

By using travel-time as a unit of measurement, the map of *Travel Time to Major Cities* represents accessibility through the easily understood concept of "how long will it take to get there?" Accessibility links people with places, goods with markets and communities to vital services. Accessibility - whether it is to markets, schools, hospitals or water - is a precondition for the satisfaction of almost any economic need. Furthermore, accessibility is relevant at all levels, from local development to global trade.

Because of advances in transport systems and networks we are better connected than ever before. This new map demonstrates how accessible some parts of the world are, indicating increased opportunities for travel, trade, communication and interaction.

This map also serves as a stark reminder that the price of greater connectivity is that there is little wilderness left. While only 10% of the world is more than 48 hours from a large city, our wilderness has shrunk to the highest of the mountains, such as the Plateau of Tibet and the extremes of the high latitudes, such as the boreal forests and ice sheets. Even the deserts and tropical forests are not the inaccessible wild lands they once were.

To find out more

- A free copy of *Travel Time to Major Cities* is available at: <http://gem.jrc.ec.europa.eu/gam/index.htm>
- The 2009 World Bank World Development Report is available at: www.worldbank.org/wdr2009
- Joint Research Centre: www.jrc.ec.europa.eu
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