

SHIPPING

SLOW BOATS TO CHINA

Despite 2015 seeing the fourth smallest Arctic ice cap ever recorded, aspirations of easily navigable trade through the Northwest Passage are to be put on ice for several decades

For years, commentators have talked up the prospect of sending commercial vessels through the famous Northwest Passage, as melting Arctic ice opens a new trade route from the North American east coast to Asia. In 2014, a milestone was reached when the MV *Nunavik*, a strengthened cargo vessel, took 23,000 tons of nickel through the passage to Bayuquan, China, without an icebreaker accompaniment (see *Worldwatch*, February 2015). Talk of the passage soon becoming a route to rival that of the Panama Canal went into overdrive.

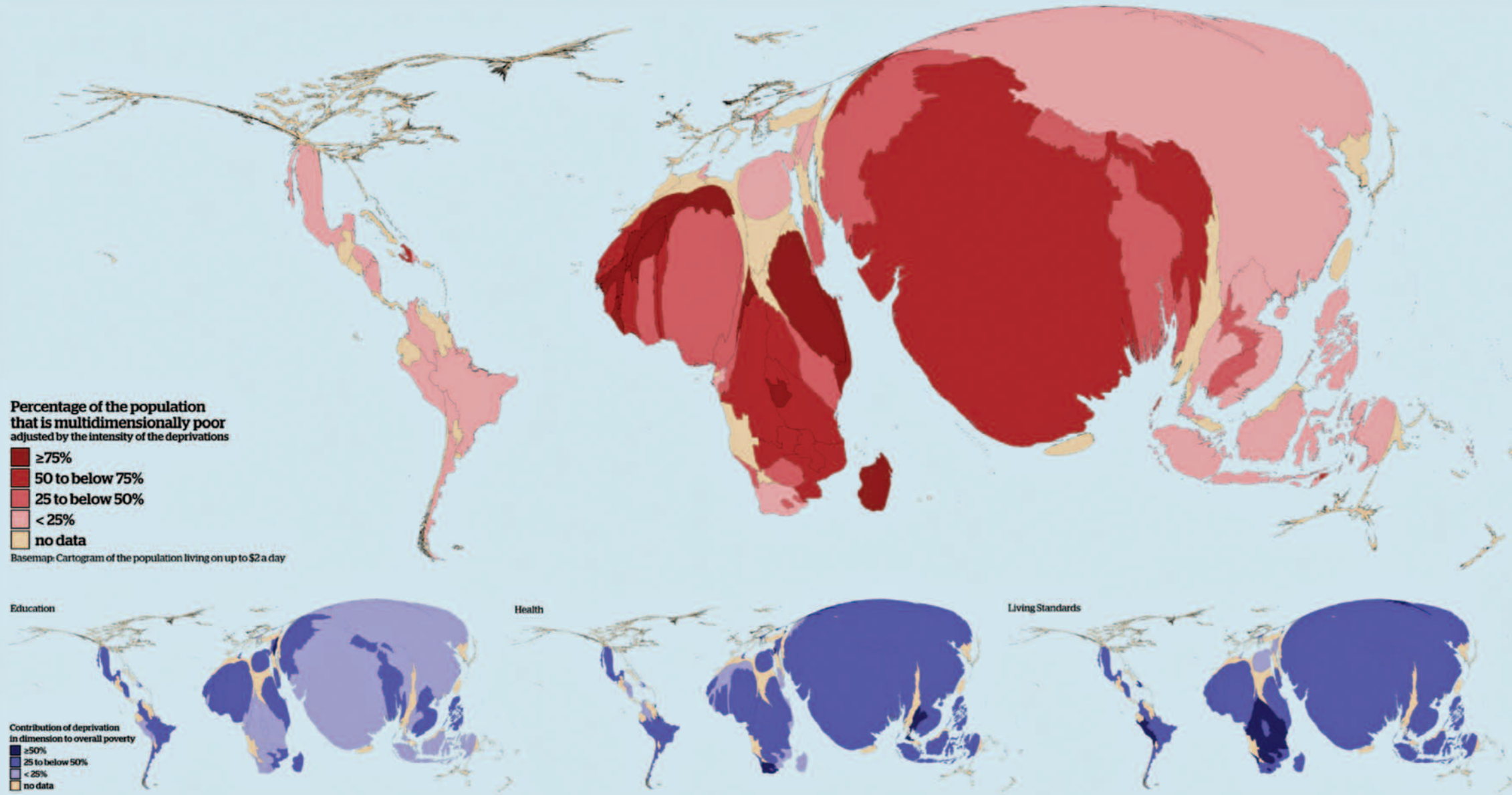
'In the public debate it sounds very promising and very realistic that soon there will be a lot of traffic,' says Christian Haas, Canada Research Chair for Arctic Sea Ice Geophysics. 'But experts doubt the reliability and feasibility of shipping through the Northwest Passage.'

Haas is lead author of a new study by York University, Toronto, where the thickness of winter Arctic ice was measured in 2011, and again in 2015. They concluded that even with summer Arctic ice shrinking, the ice thickness remains such that it could be an estimated 40 years before becoming a viable trade route.

However, ice thickness is only one issue. 'The global shipping industry doesn't work only on distance savings,' says Malte Humpert, Executive Director of The Arctic Institute. 'What it needs is schedule reliability, use of the largest ships to reduce costs, network economics, low insurance rates, steady speeds, et cetera. This isn't possible in the Arctic. I'd be surprised if we saw more than 50 ships pass through it annually by 2025. In comparison Suez has 18,000 and Panama 15,000 annually.'



ARTIS RAMS



CARTOGRAMS

DIMENSIONS OF POVERTY

BY BENJAMIN HENNIG

As a successor to the Millennium Development Goals (MDG), the United Nations announced a set of 17 new Sustainable Development Goals (SDG) relating to international development. Still on top of the agenda remains the issue of poverty. Here the new goal is to 'end poverty in all its forms everywhere' by 2030, meaning to 'eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day' and to 'reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions'.

There are trends in past decades that indicate major improvements in tackling the problem of global poverty. In relative terms, the original MDG goal of halving extreme poverty between 1990 and 2015 has been met. In developing regions, people in extreme poverty now make up 14 per cent of the population there, while most recent figures and estimates suggest that still over two billion people globally live on less than \$2 a day, a measure used to measure 'moderate' poverty. This figure is also used as a base for the main cartogram above. The map modifies the size of each country according to the total number of people there who live on up to \$2 a day according to the most recent available estimates. In addition, the colour shading uses information from the 2015 Multidimensional Poverty Index (MPI) to highlight the percentage of the population that is multi-dimensionally poor.

The MPI is part of the Human Development Index and covers 91 of the most disadvantaged countries with a total population of 1.5 billion. It takes into account that poverty is a multidimensional issue which cannot only be measured by monetary indicators. The cartogram therefore combines the monetary measure as a base for the distortion with a combination of further dimensions of poverty, such as deprivation in education, health and standard of living. The small series of cartograms below the main map dissects

these dimensions of poverty by showing their contribution of deprivation in dimension to overall poverty shown on the same cartogram as the main map.

The debate about poverty needs to move from the most commonly used monetary indicators towards a more comprehensive approach. Poverty still affects large proportions of the world's population, and not only those who have least money. In Chad and Ethiopia for example, the incidence of multidimensional poverty is at 87 per cent while for extreme poverty by monetary measurements it is 'only' at about 37 per cent. Looking at other figures from the 2015 MPI report, it can be seen that 'of the 1.6 billion people living in multidimensional poverty, 54 per cent live in South Asia, and 31 per cent in sub-Saharan Africa'. It also finds that 'most MPI poor people - 70 per cent - live in Middle Income Countries'.

Ending poverty by 2030 could prove a challenge despite all efforts that have been made, as these statistics show how complex the many dimensions of poverty really are.

Benjamin Hennig (@geoviews on Twitter) is a senior research fellow in the School of Geography and the Environment at the University of Oxford. He is involved in the Worldmapper project and maintains the visualisation blog www.viewsoftheworld.net