

## Earth & Space

# Are you going places? Mapping unequal access to services and opportunities worldwide

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*For 3.4 billion people living in rural areas, the size of nearby cities and towns and the travel time to reach them are critical. They affect the extent of services and opportunities available as well as their accessibility. Our research shows the diversity of urban-rural systems worldwide and the importance of the links between small or intermediate cities and their surrounding rural areas.*



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City dwellers often dream of living in a pastoral rural area to get away from it all. However, once there, they realize rurality requires travel time to access even basic services they previously took for granted. The challenge of accessing services, such as healthcare and education, often underlies rural to urban migration and increasing urbanization.

The concepts of rural and urban date as far back as classical Roman times and are quite culturally ingrained. However, this dichotomy, while useful, can be misleading. For example, a rural location is often equated to a more disadvantaged situation in terms of employment opportunities or access to services. However, a person living in a rural area an

hour away from a large city probably has better access to services and opportunities than someone living in a remote town classified as urban. Neither the urban hierarchy, in terms of services provided by cities of different sizes, nor the travel time needed to access services, is conveyed in the traditional urban-rural breakdown; hence, critical aspects of urban-rural interactions are overlooked.

Our study provides a representation of the connection between rural areas and urban centers, identifying how many people gravitate towards each city or town on our planet. We assume that city size reflects the breadth of services and opportunities offered and that travel time is a measure of the cost

of reaching these from a rural location. We also use a hierarchy of urban centers by population size (largest to smallest) so that a given rural location is studied in relation to the largest urban center in a given travel time category, which is assumed as the urban center of reference for people in that rural location. Each rural location is allocated to one defined category: less than one hour, one to two hours, and two to three hours travel time to one of seven urban center size categories. Until now, this type of detailed breakdown existed for only a handful of countries. Our research uses a consistent methodology, providing comparable results across 190 countries.

Contrary to our expectations, the vast majority of people worldwide (92%) live either in an urban center or within one hour from one. Another surprising element that emerged is that in poorer countries, with average per-capita income below 1,000 USD/year, the urban-rural composition is dominated by small cities and their rural surrounding areas. Small cities and towns are the urban centers of reference for 64% of the population in low-income countries, compared to only 39% in countries above the low-income threshold.

Our results indicate that urbanization and improvements in urban-rural connectivity are pre-conditions for access to services in poorer countries. Case in point, in countries above the low-income threshold only 10% or less of the population is located more than an hour from an urban center, compared to nearly 20% for low-income countries. This research has significant policy implications,

ranging from access to health and education services, to analyzing whether urban centers can source food locally, to identifying strategic improvements in transport infrastructure.

Two issues stand out when considering urban-rural connectivity. First, greater coordination between urban and rural institutions will improve the lives of 2.8 billion people living in peri-urban households by better leveraging their proximity to towns and cities. Municipal governments need to focus not just on the wellbeing of residents strictly within their administrative boundaries, but also consider the peri-urban population traveling into the municipality to access services or for work. Furthermore, authorities governing rural areas need to differentiate between peri-urban and more remote populations.

Another concern is that the importance, for rural populations, of small and intermediate cities is often not adequately considered by policymakers, who tend to focus on larger cities. Intermediate and smaller cities are critical, since proportionately more rural people gravitate around them than around larger cities. Urban policies should better reflect how small and intermediate cities benefit both their urban residents and the rural populations living nearby. In countries with a successful development strategy, rural residents can often "go places" without having to migrate to an urban center. Services and opportunities are always within reach. However, for many around the world, this is not the case, making migration their best option.