

How Did and Will World's Cities Grow, 1950-2025?

Danan Gu, Patrick Gerland, Kirill Andreev, Nan Li, Thomas Spoorenberg, Chandra Sekhar Yamarthy, and Gerhard Heilig

(United Nations, Population Division)

Please address the correspondence to G. Heilig at heilig@un.org or D. Gu at gud@un.org

Abstract:

Urbanization has greatly altered the distribution of world's cities. While the number of cities has been mushrooming from all corners of the world, the greatest number of cities and the largest cities today are increasingly found in the developing world. We use the 2009 Revision of the World Urbanization Prospects to compute population centroids of world's cities from 1950 to 2025. We find that the world centroid has had a southeastward trajectory after 1950. The surface distance of the centroid in 2010 was 2200km away from that in 1950. Asia has the greatest impact on the evolution of the population centroid of world cities than other major areas. Only the US (in the whole study period) and China (after 1990) ever altered this trajectory. The trajectory of population centroid of world cities is in line with that of their geographic centroid, whereas it differs from that of their economic centroid. Variation in trajectories across major areas and countries are substantial. The changes of population centroids will definitely have important socioeconomic and environmental consequences at local, regional or global levels.

Keywords: City, Urban area, Urbanization, Population Centroid, Economic Centroid, Geographic Centroid, City Growth, City population