West Africa Coastal Vulnerability Mapping:
GPW Version 4 Population Growth, Preliminary Release 1, 2000–2010

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Socioeconomic Data and Applications Center (SEDAC)
Center for International Earth Science Information Network (CIESIN)
Columbia University
61 Route 9W
P.O. Box 1000
Palisades, NY 10964
Phone: 1 (845) 365-8920
FAX: 1 (845) 365-8922

Please address comments to SEDAC User Services
http://sedac.uservoice.com/knowledgebase/topics/113811

DESCRIPTION

This data set was used as an indicator in the analysis presented in the report, "Mapping the Exposure of Socioeconomic and Natural Systems of West Africa to Coastal Climate Stressors" (de Sherbinin et al., 2014; de Sherbinin et al., 2015). The table below provides information about the indicator as it was used in the analysis, including a description of the input data (where relevant) and of the processing completed to produce the indicator.

Title:	Population Growth, 2000–2010
Indicator Code:	POPG
Component:	Adaptive Capacity
Rationale:	Population growth (positive or negative) in the coastal zone is mostly a function of migration related to coastal urbanization, so this indicator provides insights into highly exposed coastal areas that are seeing high population growth and migration.
Data Set:	Gridded Population of the World (GPW) depicts the distribution of human population across the globe. It provides globally consistent and spatially explicit human population information and data for use in research, policy making, and

	communications. This is a gridded, or raster, data product that renders global population data at the scale and extent required to demonstrate the spatial relationship of human populations and the environment across the globe. The purpose of GPW is to provide a spatially disaggregated population layer that is compatible with data sets from social, economic, and Earth science fields. The gridded data set is constructed from national or subnational input units (usually administrative units) of varying resolutions. The GPW Version 4 Population Growth, Preliminary Release 1, 2000–2010 raster was derived by subtracting an unreleased working version of a GPWv4, year 2000 population count raster from an unreleased working version of a GPWv4, year 2010 population count raster. The native grid cell resolution of GPWv4 is 30 arc-second, or ~1 km at the equator. Gridded Population of the World, Version 4: http://sedac.ciesin.columbia.edu/data/collection/gpw-v4
Units:	Change (positive or negative) in number of persons per grid cell
Limitations:	
Spatial Extent:	The spatial extent of the GPW Version 4 Population Growth, Preliminary Release 1, 2000-2010 raster is the 200 km coastal zone of the ten Guinea Current countries of coastal West Africa: Guinea-Bissau, Guinea, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon.
Spatial Resolution:	30 arc-second (~1 km)
Time Period:	2000–2010
Additional Notes:	

ACCESSING THE DATA

SEDAC URL: http://sedac.ciesin.columbia.edu/data/collection/wacvm.

Permanent URL: https://doi.org/10.7927/H4DB7ZR7.

The data are available as compressed zipfiles of GeoTIFFs or shapefiles. Downloaded files need to be uncompressed in a single folder using either WinZip (Windows file compression utility) or similar application before they can be accessed by your GIS software package. Users should expect an increase in the size of downloaded data after decompression.

The data are stored in geographic coordinates of decimal degrees based on the World Geodetic System spheroid of 1984 (WGS84).

DISCLAIMER

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USE CONSTRAINTS

RECOMMENDED CITATION(S)

Data set:

Center for International Earth Science Information Network (CIESIN), Columbia University. 2018. West Africa Coastal Vulnerability Mapping: GPW Version 4 Population Growth, Preliminary Release 1, 2000-2010. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). https://doi.org/10.7927/H4DB7ZR7. Accessed DAY MONTH YEAR.

Scientific publication:

Doxsey-Whitfield, E., K. MacManus, S. B. Adamo, L. Pistolesi, J. Squires, O. Borkovska and S. R. Baptista. 2015. Taking Advantage of the Improved Availability of Census Data: A First Look at the Gridded Population of the World, Version 4. Papers in Applied Geography 1(3): 1-9. https://doi.org/10.1080/23754931.2015.1014272.

REFERENCES

de Sherbinin, A., Chai-Onn, T., Jaiteh, M., Mara, V., Pistolesi, L., and Schnarr, E. 2014. Mapping the Exposure of Socioeconomic and Natural Systems of West Africa to Coastal Climate Stressors. Technical Report for the USAID African and Latin American Resilience to Climate Change (ARCC) project. Washington, DC: USAID. http://sedac.ciesin.columbia.edu/downloads/docs/wacvm/tbw04-02wacoastalmappingresults_cleared.pdf.

de Sherbinin, A, T. Chai-Onn, M. Jaiteh, V. Mara, L. Pistolesi, E. Schnarr, and S. Trzaska. 2015. Data Integration for Climate Vulnerability Mapping in West Africa. ISPRS International Journal of Geo-Information 4(4):2561-2582. https://doi.org/10.3390/ijgi4042561.