# West Africa Coastal Vulnerability Mapping: Gridded Subset of Sub-national Poverty and Extreme Poverty Prevalence

## September 2018

Socioeconomic Data and Applications Center (SEDAC)
Center for International Earth Science Information Network (CIESIN)
Columbia University
61 Route 9W
P.O. Box 1000

Phone: 1 (845) 365-8920 FAX: 1 (845) 365-8922

Palisades, NY 10964

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:	Sub-national Poverty and Extreme Poverty Prevalence
Indicator Code:	POV
Component:	Sensitivity
Rationale:	Poverty levels will affect the "defenselessness" of populations in the low elevation coastal zone.
Data Set:	The Harvest Choice Sub-national Poverty and Extreme Poverty Prevalence data set is a polygon data set with estimated poverty measures at 2005 purchasing power parity (PPP) \$1.25/day and \$2/day international poverty lines. The data

	were developed by the Harvest Choice project with funding from the Bill and Melinda Gates Foundation.
	To create the Gridded Subset of Sub-national Poverty and Extreme Poverty Prevalence raster, the values of the shapefile attribute "hc_poor2" (poverty headcount ratio - below 2005 PPP \$2/day) were converted to percent, mapped, and then the shapefile converted to raster.
	Input data source citations:
	Azzarri, C., Wood, S., G. Hyman, E. Barona, M. Bacou and Z. Guo. 2012. Subnational Poverty Map for Sub-Saharan Africa at 2005 International Poverty Lines (r12.12). Available from <a href="http://harvestchoice.org/">http://harvestchoice.org/</a> .
	HarvestChoice, 2012. "Sub-national Poverty and Extreme Poverty Prevalence." International Food Policy Research Institute, Washington, DC., and University of Minnesota, St. Paul, MN. Available online at <a href="http://harvestchoice.org/node/4751">http://harvestchoice.org/node/4751</a> .
Units:	Share of total population
Limitations:	
Spatial Extent:	The spatial extent of the Gridded Subset of Sub-national Poverty and Extreme Poverty Prevalence 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:	2005
Additional Notes:	

## ACCESSING THE DATA

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

Permanent URL: <a href="https://doi.org/10.7927/H44T6G9K">https://doi.org/10.7927/H44T6G9K</a>.

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**

Users are free to use, copy, distribute, transmit, and adapt the work for commercial and non-commercial purposes, without restriction, as long as clear attribution of the source is provided.

#### RECOMMENDED CITATION(S)

#### Data set:

HarvestChoice. 2018. West Africa Coastal Vulnerability Mapping: Gridded Subset of Subnational Poverty and Extreme Poverty Prevalence. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <a href="https://doi.org/10.7927/H44T6G9K">https://doi.org/10.7927/H44T6G9K</a>. Accessed DAY MONTH YEAR

#### REFERENCES

Azzarri, C., Wood, S., G. Hyman, E. Barona, M. Bacou and Z. Guo. 2012. Sub-national Poverty Map for Sub-Saharan Africa at 2005 International Poverty Lines (r12.12). Available at http://harvestchoice.org.

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/jjgi4042561.

HarvestChoice, 2012. "Sub-national Poverty and Extreme Poverty Prevalence." International Food Policy Research Institute, Washington, DC., and University of Minnesota, St. Paul, MN. Available online at http://harvestchoice.org/node/4751.