Metadata for: brazil_solar_global_10km

Identification Information

Originator: INPE (National Institute for Space Research) and LABSOLAR (Laboratory of Solar Energy/Federal University of Santa Catarina) - Brazil

Title: Solar Radiation in Brazil

Description: Global horizontal solar radiation in kWh/m2/day for 1 year organized into cells with 10km x 10km

Time period for which the data is relevant: indefinite

Spatial Extend of Data: Brazil

Bounding Coordinates:

West Bounding Coordinate: 78°10' W
East Bounding Coordinate: 28°30' W
North Bounding Coordinate: 8°10' N
South Bounding Coordinate: 36°10' S

Constraints:

Access: No restrictions
Use: Quoting the source is required: "INPE (National Institute for Spatial Research) and LABSOLAR (Laboratory of Solar Energy/Federal University of Santa Catarina) - Brazil"

Contact Information:

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Data Quality Information

Lineage: The BRASIL-SR model and the SPRING software (both developed by INPE - National Institute for Space Research) were used to produce the dataset and SHAPE files

Attribute Accuracy: The assessment of reliability levels of the BRASIL-SR model wereperformed through the evaluation of the deviations shown by the estimated values for solar radiation flux vis-à-vis the values measured at the surface (ground truth). This evaluation was done in two phases. The first phase consisted in an inter-comparison between the core radiation transfer models adopted by the SWERA Project to map the solar energy in the various countries participating in the project. The HELIOSAT model took part in this phase like benchmark due to its employment to map solar energy resources in countries from European Union. In the second phase, the solar flux estimates provided by the BRASIL-SR model were compared with measured values acquired at several solarimetric stations spread along the Brazilian territory

Source Scale Denominator: 1

Spatial Reference Information

Spatial Object Type: Vector - polygon

Horizontal Coordinate Scheme: ---

Horizontal Units: Decimal degrees

Resolution:
Latitude: 0.07°
Longitude: 0.04°

UTM Zone Number: ---

Map Projection:
Name: Geographic
Parameters:
Longitude of Central Meridian: 54° W
Latitude of Projection Origin: 0°
False Easting: 0
False Northing: 0

Other Coordinate System Definition: ---

Cells:
Width: 10km
Height: 10km

Geodetic Model:
Horizontal Datum Name: SAD-69
Ellipsoid Name: Reference ellipsoid 1967 (International Astronomical Union)

Entity and Attribute Information

Entity and attribute overview: Global horizontal solar radiation for the 12 months of the year in kWh/m2/day organized into cells with 10km x 10km
Entity Label: brazil_solar_global_10km.shp

Attribute Label: ID_CEL
Attribute Definition: cell identification

Attribute Label: LONGITUDE
Attribute Definition: longitude of the cell center

Attribute Label: LATITUDE
Attribute Definition: latitude of the cell center

Attribute Label: JAN
Attribute Definition: monthly average of the global horizontal radiation for January

Attribute Label: FEB
Attribute Definition: monthly average of the global horizontal radiation for February

Attribute Label: MAR
Attribute Definition: monthly average of the global horizontal radiation for March

Attribute Label: APR
Attribute Definition: monthly average of the global horizontal radiation for April

Attribute Label: MAY
Attribute Definition: monthly average of the global horizontal radiation for May

Attribute Label: JUN
Attribute Definition: monthly average of the global horizontal radiation for June

Attribute Label: JUL
Attribute Definition: monthly average of the global horizontal radiation for July

Attribute Label: AUG
Attribute Definition: monthly average of the global horizontal radiation for August

Attribute Label: SEP
Attribute Definition: monthly average of the global horizontal radiation for September

Attribute Label: OCT
Attribute Definition: monthly average of the global horizontal radiation for October

Attribute Label: NOV
Attribute Definition: monthly average of the global horizontal radiation for November

Attribute Label: DEC
Attribute Definition: monthly average of the global horizontal radiation for December

Attribute Label: ANNUAL
Attribute Definition: annual average of the global horizontal radiation

Attribute Label: SPRING
Attribute Definition: seasonal average of the global horizontal radiation for Spring

Attribute Label: SUMMER
Attribute Definition: seasonal average of the global horizontal radiation for Summer

Attribute Label: FALL
Attribute Definition: seasonal average of the global horizontal radiation for Fall

Attribute Label: WINTER
Attribute Definition: seasonal average of the global horizontal radiation for Winter

Metadata Reference Information:

Metadata Date: August 8, 2009

Metadata Contact:
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