

NASA Earthdata Network

- Data Discovery
- Data Centers
- Community
- Science Disciplines

ORNL DAAC

Distributed Active Archive Center for
Biogeochemical Dynamics

About Us

Products

Data

Tools

Help

[home](#) [sign in](#)

Data

[DAAC Home](#) > [Data](#) > [Regional/Global](#) > [ISLSCP II](#) > Data Set Documentation

ISLSCP II Global River Fluxes of Carbon and Sediments to the Oceans

Get Data

Revision date: September 7, 2011

Summary:

The River Carbon Flux data set represents estimates for the riverine export of carbon and of sediments. This data set includes the amounts of carbon and of sediments that are discharged to the oceans by rivers for each coastal grid point which receives river inputs. This data set contains three compressed (*.zip) files: the original data at 2.5 x 2.0 degrees, and global maps at spatial resolutions of 0.5 and 1.0 degree which the ISLSCP II staff has created from the original data.

Additional Documentation:

This data set is one of the products of the **International Satellite Land-Surface Climatology Project, Initiative II (ISLSCP II)** data collection which contains 50 global time series data sets for the ten-year period 1986 to 1995. A complete description of the data, its derivation, acknowledgements, and references provided by the ISLSCP II Data Management Staff is included with this data set as a companion file named [1_river_carbon_flux_doc.pdf](#).

ISLSCP II is a consistent collection of data sets that were compiled from existing data sources and algorithms, and were designed to satisfy the needs of modelers and investigators of the global carbon, water and energy cycle. The data were acquired from a number of U.S. and international agencies, universities, and institutions. The data and documentation have undergone two peer reviews.

ISLSCP is one of several projects of Global Energy and Water Cycle Experiment (GEWEX) (<http://www.gewex.org/>) and has the lead role in addressing land-atmosphere interactions -- process modeling, data retrieval algorithms, field experiment design and execution, and the development of global data sets.

Related Data Sets:

- [ISLSCP II Atmospheric Carbon Dioxide Consumption by Continental Erosion](#)
- Additional [ISLSCP II](#) data sets are available from the Oak Ridge National Laboratory Distributed Active Archive Center ([ORNL DAAC](#)).

Data Citation:

Cite this data set as follows:

Ludwig, W., P. Amiotte-Suchet, J.L. Probst. 2011. ISLSCP II Global River Fluxes of Carbon and Sediments to the Oceans. In Hall, F.G., G. Collatz, B. Meeson, S. Los, E. Brown de Colstoun, and D. Landis (eds.). ISLSCP Initiative II Collection. Data set. Available on-line [<http://daac.ornl.gov/>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. <http://dx.doi.org/10.3334/ORNLDAAC/1028>

File Information:

The archived data sets for ISLSCP II have been organized by categories. This data set is in the Carbon category.

Data Set Spatial Extent: Global gridded

Westernmost Longitude: -180 W

Easternmost Longitude: 180 E

Northernmost Latitude: 90 N

Southernmost Latitude: -90 S

Projection: Geographic

Data Set Spatial Resolution: 2.0 degrees, 1.0 degree and 0.5 degree in both latitude and longitude

Data Set Temporal Extent: annual

Data File Format

All of the data files in each data set within the ISLSCP Initiative II data collection are in standard ESRI ArcGIS ASCII grid format. The file format consists of numerical fields of varying length, which are delimited by a single space and arranged in columns and rows. There are three *.zip files with this data set in 2.0 degree(2deg), 1.0 degree (1deg) and 0.5 degree (hdeg) spatial resolutions:

(1) ocean_data_2deg.zip: When extrapolated contains original oceanic flux data files with a spatial resolution of 2.5 x 2.0 degrees lat/long, provided in a tabular format with four columns. These original files are named:

ocean_flux_co2_2d.dat: bicarbonate export (atmospheric origin)

ocean_flux_doc_2d.dat: dissolved organic carbon (DOC) export

ocean_flux_hco3_2d.dat: bicarbonate export

ocean_flux_poc_2d.dat: particulate organic carbon (POC) export

ocean_flux_tss_2d.dat: sediment export

(2) ocean_maps_hdeg.zip and **(3) ocean_maps_1deg.zip:** When extrapolated, these zip files contain the following ASCII (.asc) files, where XX is 1.0 degree (1d) or 0.5 degree (hd) spatial resolution:

ocean_flux_co2_XX_map.asc: dissolved organic carbon (DOC) export

ocean_flux_doc_XX_map.asc: dissolved organic carbon (DOC) export

ocean_flux_hco3_XX_map.asc bicarbonate export: bicarbonate export

ocean_flux_poc_XX_map.asc: particulate organic carbon (POC) export

ocean_flux_tss_XX_map.asc: sediment export

In addition, there are 11 companion files which are graphical versions of their 0.5 (hd) degree resolution data for visualization purposes. These GIF format files are named with the same format as the oceanic files with the exception that they end in the extension ".gif". An additional file showing the flow directions used in the river routing is also provided (**flow_dir.gif**).

Please refer to [0_river_carbon_flux_readme.txt](#) and [1_river_carbon_flux_doc.pdf](#) for a more complete description of the data files and naming conventions.

References:

Amiotte-Suchet, P. and Probst, J.L., 1995a. A global model for present day atmospheric/ soil CO₂ consumption by chemical erosion of continental rocks (GEM-CO₂). Tellus, 47B, 273- 280.

Ludwig, W., Probst, J.L., and Kempe, S. (1996a). Predicting the oceanic input of organic carbon by continental erosion. Global Biogeochemical Cycles, 10, p. 23-41.

Data Access:

These data are available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC) [<http://daac.ornl.gov>].

Data Archive Contact Information:

E-mail: uso@daac.ornl.gov

Telephone: +1 (865) 241-3952



[Privacy Policy](#) | [Feedback](#) | [FAQs](#) | [Site Map](#)

[Follow @ORNLDAAC](#)

Home	About Us Who We Are User Working Group Biogeochemical Dynamics Data Citation Policy News Newsletters Workshops	Products Product Overview Field Campaigns Validation Regional/Global Model Archive	Data Complete Data Set List Search for Data Field Campaigns Validation Regional/Global Model Archive	Tools Data Search Site Search Search by DOI WebGIS SDAT MODIS Land Subsets THREDDS	Help FAQs Tutorials Data Management	Contact Us
----------------------	--	--	---	--	---	----------------------------

