

Experiences with Implementation of Digital Object Identifiers

Robert R. Downs

rdowns@ciesin.columbia.edu,

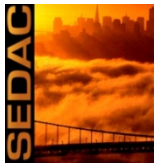
NASA Socioeconomic Data and Applications Center (SEDAC)
Center for International Earth Science Information Network
(CIESIN)
The Earth Institute, Columbia University

2014 SUMMER ESIP FEDERATION MEETING
Frisco, Colorado, 8-11 July 2014

ESIP Data Stewardship Session
Tuesday 8 July 2014



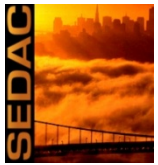
Approach to SEDAC DOI Implementation



- Planning
 - NASA ESDIS recommended implementing DOIs
 - SEDAC planned to implement DOIs
- Development
 - Drafted SEDAC Guide to Assigning Global Persistent Identifiers to Data
 - Applied for EZID sub-account (through Columbia University Libraries)
 - Tested feasibility of assigning DOIs to SEDAC datasets
 - Revised SEDAC Guide to Assigning Global Persistent Identifiers to Data
 - Drafted, tested, and trained on procedure for assigning and maintaining DOIs
- Implementation Decisions
 - CMB approved SEDAC Guide to Assigning Global Persistent Identifiers to Data
 - CMB approved inclusion of DOI in Recommended Citation for each dataset
- Operations
 - Routinely assigning DOIs to datasets in accordance with procedure
 - Reporting monthly on new DOIs registered for ESDIS products



Crosswalk between DataCite Elements and FGDC CSDGM Elements and Values

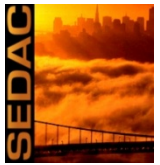


Required and Optional DataCite Elements	FGDC CSDGM Elements (Identification Information)
Location*	Citation – Citation Information – Online Linkage (URL of Dataset Landing Page)
Creator – Name*	Citation – Citation Information – Originator
Title*	Citation – Citation Information – Title
Publisher*	Citation – Citation Information – Publication Information (Publication Place and Publisher). Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC)
Publication Year*	Citation – Citation Information – Publication Date
Resource Type	Citation – Citation Information – Geospatial Data Presentation Form
Descriptive Information - Abstract	Description – Abstract
Subject	Theme Keyword – SEDAC Topic
Rights	Use Constraints
Geolocation - Place	Keywords – Place – Place Keyword (multiple values)

Derived from: SEDAC Procedure for Assigning and Maintaining Digital Object Identifiers to Disseminated Datasets. 2014. Palisades, NY: NASA Socioeconomic Data and Applications Center.



Assigning DOIs to Datasets



Logged in as



- Home
- Manage IDs
- Create IDs**
- Lookup ID
- Demo

[Simple](#) | [Advanced](#)

Create Identifier

Step 1: Choose an identifier type

- ARK (ark:/87927/h5)
- DOI (doi:10.7927/H4)

Step 2: Optional: Enter a custom remainder (suffix) ?

Recommended: Leave blank

Step 3: Decide

- Make this identifier public? Yes No ?
- Allow harvesting/indexing? Yes No ?

Step 4: Describe the identified object using the DataCite citation profile: ?

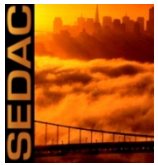
Location (URL):

Creator * ?

Name: *



Managing Digital Object Identifiers



Long-term identifiers made easy

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[Home](#) **[Manage IDs](#)** [Create IDs](#) [Lookup ID](#) [Demo](#)

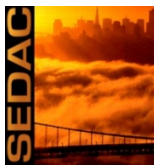
Identifiers (includes co-owned identifiers) [Customize view](#)

< prev 1 2 3 ... 12 **13** 14 15 16 17 next >

Identifier	Date Last Modified	Object Title	Object Creator
doi:10.7927/H45H7D60	2014-04-03 21:17:18 UTC	Compendium of Environmental Sustainability Indicator Collections: 2004 Environmental Vulnerability Index (EVI)	South Pacific Applied Geoscience Commission - SOPAC; United Nations Environmental Program - UNEP
doi:10.7927/H49884X9	2014-04-03 21:14:53 UTC	Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86	Smith, S.J.; van Aardenne, J.; Klimont, Z.; Andres, R. J.; Volke, A.; Delgado Arias, S.



Harvestable Dataset Records



Metadata Search beta

Sulfur

DataCite

Filter

Active filters : resourceType Dataset datacentre CDL.CIESIN - Center for International Earth Science Information Network (CIESIN)

4 documents found in 35ms

Page 1 of 1

datacentre

Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86

CDL.CIESIN (4)

[doi:10.7927/H49884X9](#) Dataset : tabular; map

Smith, S.J.; van Aardenne, J.; Klimont, Z.; Andres, R. J.; Volke, A.; Delgado Arias, S.

title: Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source

description: The Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source

prefix

contributor

IPCC Special Report on Emissions Scenarios (SRES) Fluor-Gases Emissions Dataset

creator

[doi:10.7927/H4HD7SKJ](#) Dataset : tabular

Intergovernmental Panel on Climate Change - IPCC

publicationYear

description:), Perfluorocarbons (PFCs), Sulfur Hexafluoride (SF6), Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs)

publisher

IPCC Special Report on Emissions Scenarios (SRES) 1x1 Degree Gridded Emissions Dataset

language

[doi:10.7927/H4RV0KMH](#) Dataset : raster; tabular

Intergovernmental Panel on Climate Change - IPCC

description:), along with Sulfur Dioxide (SO2), based on the IPCC SRES Emissions Scenarios Data Set Version 1.1. This

IPCC Special Report on Emissions Scenarios (SRES) Emissions Scenarios Dataset Version 1.1

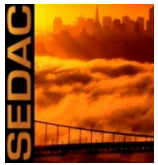
[doi:10.7927/H4N29TWJ](#) Dataset : tabular

Intergovernmental Panel on Climate Change - IPCC

description: sulfur emissions scenarios projected every 10 years beginning in 1990 through 2100. The scenarios are



Indexed Metadata Record for Dataset



doi:10.7927/H49884X9



This page represents DataCite's metadata for *doi:10.7927/H49884X9*.



For a landing page of this dataset please follow <http://dx.doi.org/10.7927/H49884X9>



Citation Smith, S.J.; van Aardenne, J.; Klimont, Z.; Andres, R. J.; Volke, A.; Delgado Arias, S.; (2011): Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86; Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://dx.doi.org/10.7927/H49884X9> **RIS** **BIBTeX**



Descriptions

Abstract The Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86 provides annual estimates of anthropogenic global and regional Sulfur Dioxide (SO2) emissions spanning the period 1850-2005 using a bottom-up mass balance method, calibrated to country-level inventory data. It includes emissions by country and by source category (coal, petroleum, biomass combustion, smelting, fuel processing, and other processes). This data set is developed at the Pacific Northwest National Laboratory (PNNL) and the maps are produced at the Center for International Earth Science Information Network (CIESIN). The data and maps created using the data set are distributed by CIESIN at Columbia University.

Resource type

Dataset tabular; map

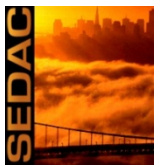
Subjects climate

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SOCIOECONOMIC DATA AND APPLICATIONS CENTER (SEDAC)

A Data Center in NASA's Earth Observing System Data and Information System (EOSDIS) — Hosted by CIESIN at Columbia University



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Historical Anthropogenic Sulfur Dioxide Emissions

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Collection Overview

Methods

Data Sets (1)

National and Regional Data Set by Source Category, v2.86 (1850–2005)

Map Gallery (36)

Citations

National and Regional Data Set by Source Category, v2.86 (1850–2005)

[Set Overview](#) [Data Download](#) [Maps](#) [Documentation](#) [Metadata](#)

Purpose:

To provide annual estimates of anthropogenic global and regional Sulfur Dioxide (SO₂) emissions in support of climate, atmospheric or other related research.

Abstract:

The Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86 provides annual estimates of anthropogenic global and regional Sulfur Dioxide (SO₂) emissions spanning the period 1850-2005 using a bottom-up mass balance method, calibrated to country-level inventory data. It includes emissions by country and by source category (coal, petroleum, biomass combustion, smelting, fuel processing, and other processes). This data set is developed at the Pacific Northwest National Laboratory (PNNL) and the maps are produced at the Center for International Earth Science Information Network (CIESIN). The data and maps created using the data set are distributed by CIESIN at Columbia University.

Recommended Citation(s)*:

Smith, S. J., J. van Aardenne, Z. Klimont, R. J. Andres, A. Volke, and S. Delgado [ENW \(EndNote & RefWorks\)](#)†
Arias. 2011. Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and [RIS \(Others\)](#)
Regional Data Set by Source Category, Version 2.86. Palisades, NY: NASA
Socioeconomic Data and Applications Center (SEDAC). <http://dx.doi.org/10.7927/H49884X9>. Accessed DAY MONTH YEAR.

Smith, S. J., J. van Aardenne, Z. Klimont, R. J. Andres, A. Volke, and S. Delgado Arias. 2011. Anthropogenic Sulfur Dioxide Emissions: 1850-2005. *Atmospheric Chemistry and Physics* 11:1101-1116. DOI:10.5194/acp-11-1101-2011.

* When authors make use of data they should cite both the data set and the journal article of record, if available. Such a practice gives credit to data set producers and advances principles of transparency and reproducibility.

† For EndNote users, please check the Research Note field for issues with importing authors that are organizations when using the ENW file format.

Available Formats:

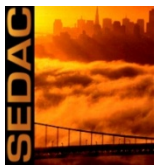
[tabular](#), [map](#)





Dataset
Landing
Page



Recommended Citations: Dataset & Original Article



Recommended Citation(s)*:

Smith, S. J., J. van Aardenne, Z. Klimont, R. J. Andres, A. Volke, and S. Delgado Arias. 2011. Anthropogenic Sulfur Dioxide Emissions, 1850-2005: National and Regional Data Set by Source Category, Version 2.86. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://dx.doi.org/10.7927/H49884X9>. Accessed DAY MONTH YEAR.  **ENW (EndNote & RefWorks)†**  **RIS (Others)**

Smith, S. J., J. van Aardenne, Z. Klimont, R. J. Andres, A. Volke, and S. Delgado Arias. 2011. Anthropogenic Sulfur Dioxide Emissions: 1850-2005. *Atmospheric Chemistry and Physics* 11:1101-1116. DOI:10.5194/acp-11-1101-2011.

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