**Required content of Working Paper CLIO-INFRA**

***Please include the following elements into any working paper entered into the CLIO-INFRA system:***

1. Title

Manganese mining production by decade and country

2. Author(s)

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3. Production date

2014-11-1.

4. Version

1

5. Variable group(s)

Environmental sustainability

6. Variable(s)

Manganese mine production, in thousand metric tons

7. Unit of analysis

Country

8. Keywords (5)

Manganese, Mine production, Mn

9. Abstract (200 words)

*Manganese (Mn) is essential to iron and steel production by virtue of its sulfur-fixing, deoxidizing, and alloying properties. (..) Products for construction, machinery, and transportation are leading end uses of manganese. Manganese also is a key component of certain widely used aluminum alloys and, in oxide form, dry cell batteries. As ore, additional quantities of manganese are used for such nonmetallurgical purposes as plant fertilizers, animal feed, and colorants for brick.*

Source: <http://minerals.usgs.gov/minerals/pubs/commodity/manganese/>

10. Time period

1835-2012

11. Geographical coverage

Worldwide

12. Methodologies used for data collection and processing

Data inventory

13. Data quality

Good

14. Date of collection

-

15. Data collectors

British Geological Survey (BGS)

[U.S.](http://www.doi.gov/) Bureau of Mines, [U.S. Geological Survey](http://www.usgs.gov/) (USGS)

16. Sources

British Geological Survey, *World Mineral Statistics*, website: <https://www.bgs.ac.uk/mineralsuk/statistics/worldArchive.html> (Last visited on: 13-11-2014).

Mitchell, B.R., *International Historical Statistics – Africa, Asia & Oceania 1750-2005* (London, 2007).

Mitchell, B.R., *International Historical Statistics – Europe* (London, 2007).

Mitchell, B.R., *International Historical Statistics – The Americas 1750-2005* (London, 2007).

Schmitz, Christopher J., *World Non-Ferrous Metal Production and Prices, 1700-1976* (London, 1979).

U.S. Geological Survey, *Historical Statistics for Mineral and Material Commodities in the United States*, website: <http://minerals.usgs.gov/minerals/pubs/historical-statistics/> (Last visited on: 13-11-2014).