

SDG Goal 6	Clean water and sanitation
SDG Target 6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
SDG Indicator 6.6.1	Change in the extent of water-related ecosystems over time
Time series	Area

1. General information on the time series

- Date of national metadata: 5 July 2024
- National data: <http://sdg-indicators.de/6-6-1/>
- Definition: The time series measures the extent of the ecosystems "Lakes and rivers permanent water area", "Wetlands" and "Artificial lakes" based on the Ecosystem Extent Account.

For lakes, the ecosystem classes "large, natural lakes" (B01.21) and "other, small lakes" (B01.29) have been taken into account. For water courses, all ecosystem classes of the ecosystem group "water courses" (B01.1) are taken into account. These include "large, natural water courses" (B01.11), "large, heavily modified water courses" (B01.12), "large, artificial water courses" (B01.13) and "other, small water courses" (B01.19).

For wetlands, the ecosystem classes "Marshes" (A04.21), "Peatbogs with active cutting" (A04.22), "Natural or renaturalized peatbogs" (A04.23) and "Natural or renaturalized fens" (A04.24) are taken into account.

For Large artificial or heavily modified lakes, the ecosystem classes "large, heavily modified lakes" (B01.22) and "large, artificial lakes" (B01.23) are considered.

- Disaggregation: Not available.

2. Comparability with the UN metadata

- Date of UN metadata: July 2024
- UN metadata: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-06-01a.pdf>
- The time series is not compliant with the UN metadata, but provides additional information.

3. Data description

- Data stems from the Ecosystem Extent Account that is part of the Environmental-Economic accounting for Germany.

4. Access to data source

- Area balance sheet of ecosystems: Semi-natural open areas:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Tables/a04-open-areas.html>

5. Metadata on source data

- Methods of the Ecosystem Extent Account:
https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/methods-ecosystem-extent-account.pdf?__blob=publicationFile
- National Ecosystem Classification for Germany:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/national-ecosystem-classification-5852206219004.pdf>

6. Timeliness and frequency

- Timeliness: t + 14 months
- Frequency: Every 3 years

7. Calculation method

- Unit of measurement: km²
- Calculation:

$Area_i = \sum_{ij} \text{Area of ecosystem class } ij \text{ [km}^2\text{]}$

with $i =$

Lakes and rivers

with $j = \{B01.1; B01.21; B01.29\}$

Wetlands

with $j = \{A04.21; A04.22; A04.23; A04.24\}$

Artificial lakes

with $j = \{B01.22; B01.23\}$

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SDG Indicator 6.6.1	Change in the extent of water-related ecosystems over time
Time series	Area as a proportion of total land area

1. General information on the time series

- Date of national metadata: 5 July 2024
- National data: <http://sdg-indicators.de/6-6-1/>
- Definition: The time series measures the extent of the ecosystems "Lakes and rivers permanent water area", "Wetlands" and "Artificial lakes" as a proportion of total land area based on the Ecosystem Extent Account.

For lakes, the ecosystem classes "large, natural lakes" (B01.21) and "other, small lakes" (B01.29) have been taken into account. For water courses, all ecosystem classes of the ecosystem group "water courses" (B01.1) are taken into account. These include "large, natural water courses" (B01.11), "large, heavily modified water courses" (B01.12), "large, artificial water courses" (B01.13) and "other, small water courses" (B01.19).

For wetlands, the ecosystem classes "Marshes" (A04.21), "Peatbogs with active cutting" (A04.22), "Natural or renaturalized peatbogs" (A04.23) and "Natural or renaturalized fens" (A04.24) are taken into account.

For Large artificial or heavily modified lakes, the ecosystem classes "large, heavily modified lakes" (B01.22) and "large, artificial lakes" (B01.23) are considered.

For the calculation of the total land area, all terrestrial areas (included in the ecosystem division A "Terrestrial areas") and the freshwater area (included in ecosystem group B01 "Freshwater") are taken into account.

- Disaggregation: Not available.

2. Comparability with the UN metadata

- Date of UN metadata: July 2024
- UN metadata: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-06-01a.pdf>
- The time series is not compliant with the UN metadata, but provides additional information.

3. Data description

- Data stems from the Ecosystem Extent Account that is part of the Environmental-Economic accounting for Germany.

4. Access to data source

- Area balance sheet of ecosystems: Semi-natural open areas:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Tables/a04-open-areas.html>

5. Metadata on source data

- Methods of the Ecosystem Extent Account:
https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/methods-ecosystem-extent-account.pdf?__blob=publicationFile
- National Ecosystem Classification for Germany:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/national-ecosystem-classification-5852206219004.pdf>

6. Timeliness and frequency

- Timeliness: t + 14 months
- Frequency: Every 3 years

7. Calculation method

- Unit of measurement: Percentage
- Calculation:

$$\text{Share of area}_i = \frac{\sum_{ij} \text{Area of ecosystem class } ij \text{ [km}^2\text{]}}{\text{Terrestrial area (A) [km}^2\text{]} + \text{Freshwater (B01) [km}^2\text{]}} \cdot 100 \text{ [\%]}$$

with $i =$

Lakes and rivers

with $j = \{B01.1; B01.21; B01.29\}$

Wetlands

with $j = \{A04.21; A04.22; A04.23; A04.24\}$

Artificial lakes

with $j = \{B01.22; B01.23\}$

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SDG Target 6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
SDG Indicator 6.6.1	Change in the extent of water-related ecosystems over time
Time series	Area change in comparison to 2015

1. General information on the time series

- Date of national metadata: 5 July 2024
- National data: <http://sdg-indicators.de/6-6-1/>
- Definition: The time series measures the change in the extent of "lakes and rivers", "wetlands" and "artificial lakes" based on the Ecosystem Extent Account compared to 2015.
- Disaggregation: Not available.

2. Comparability with the UN metadata

- Date of UN metadata: July 2024
- UN metadata: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-06-01a.pdf>
- The time series is partly compliant with the UN metadata. The baseline year against which the change is measured differs from the UN metadata.

3. Data description

- Data stems from the Ecosystem Extent Account that is part of the Environmental-Economic Accounting for Germany.

4. Access to data source

- Area balance sheet of ecosystems: Semi-natural open areas:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Tables/a04-open-areas.html>
- Area balance sheet of ecosystems: Freshwater:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Tables/b01-freshwater.html>

5. Metadata on source data

- Methods of the Ecosystem Extent Account:
https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/methods-ecosystem-extent-account.pdf?__blob=publicationFile
- National Ecosystem Classification for Germany:
<https://www.destatis.de/EN/Themes/Society-Environment/Environment/Environmental-Economic-Accounting/ecosystem-account/Methods/national-ecosystem-classification-5852206219004.pdf>

6. Timeliness and frequency

- Timeliness: t + 14 months
- Frequency: Every 3 years

7. Calculation method

- Unit of measurement: Percentage
- Calculation:

$$\text{Area}_i \text{ change} = \frac{\text{Area}_i [\text{km}^2] - \text{Area}_{i, 2015} [\text{km}^2]}{\text{Area}_{i, 2015} [\text{km}^2]} \cdot 100 [\%]$$

with $i = \{\text{Lakes and rivers; Wetlands; Artificial lakes}\}$