



**Manual**

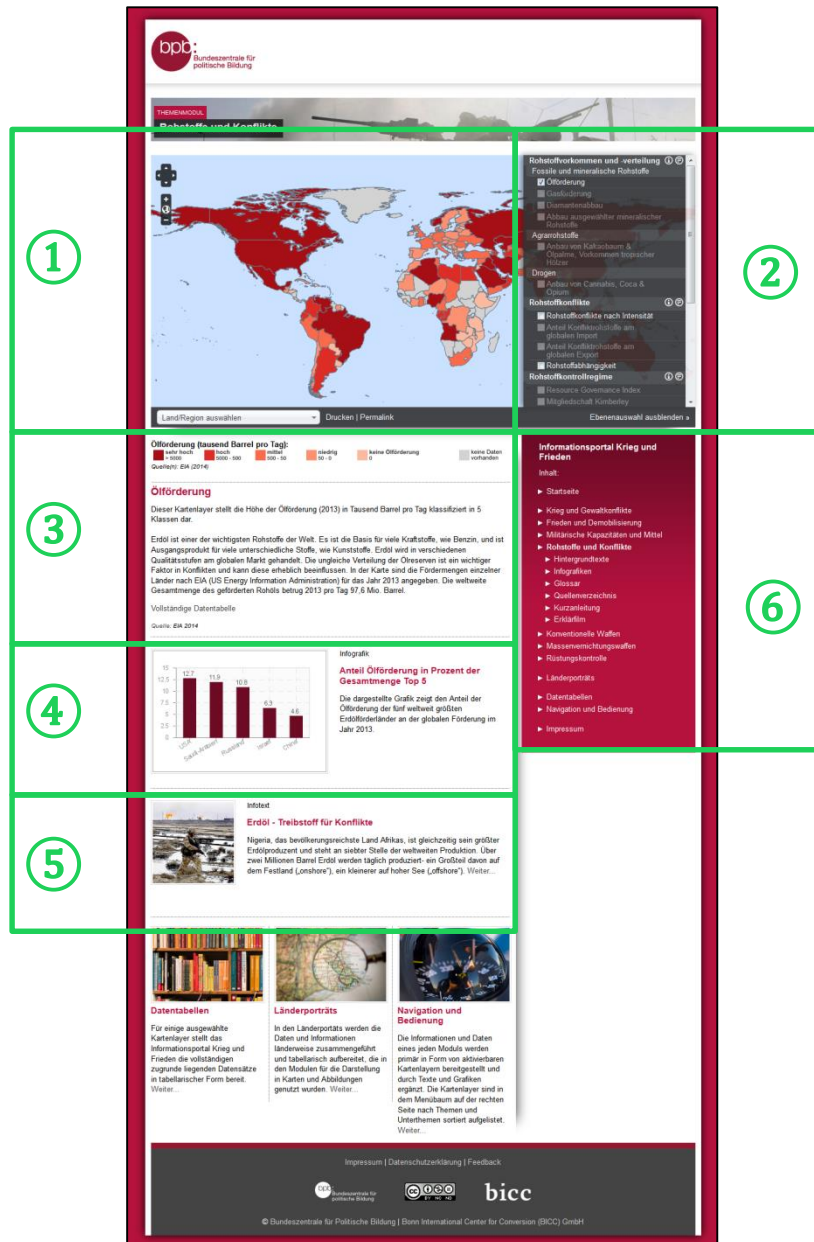
**Module**

**Environmental Safety**

Central elements of the **start page** of the module “natural resources and conflicts” are

The screenshot shows the start page of the 'Rohstoffe und Konflikte' module. It features a world map (1), a sidebar menu for selecting content levels (2), a main text area with an introduction (4), and a bottom navigation bar (5). The sidebar menu includes options for 'Rohstoffvorkommen und -verteilung', 'Rohstoffkonflikte', and 'Rohstoffkontrollregime'. The main text area contains introductory text and a list of navigation options like 'Startseite', 'Krieg und Gewaltkonflikte', 'Frieden und Demobilisierung', etc.

- ① the map window,
- ② the level selection menu with which maps can be shown or hidden,
- ③ the portal menu,
- ④ a short introduction into the content and the concept below the map window,
- ⑤ the navigation at the end of the page to further data included in other modules, as well as further operational tools.

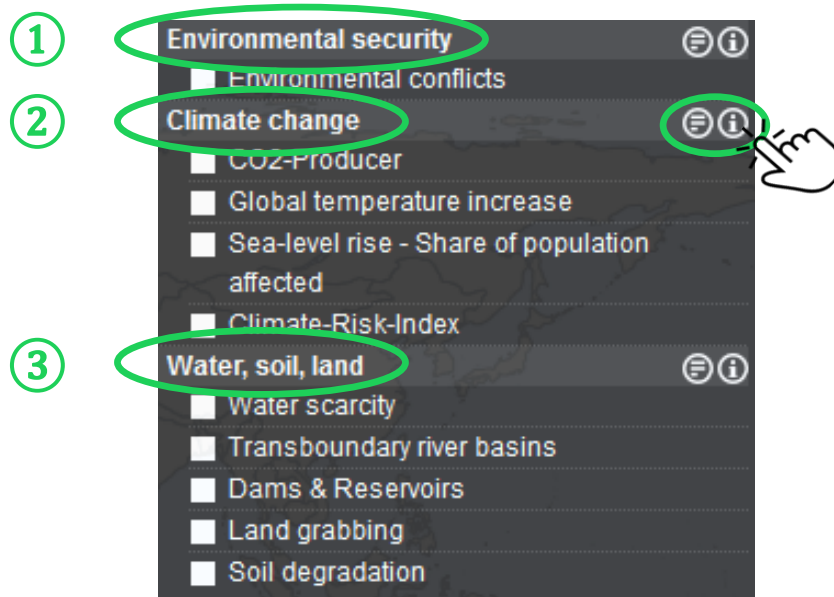




When you activate map layers, the page view of the portal changes. The introductory text disappears and other elements become visible below the map window. The **module page** then shows:

- ① the map window,
- ② the level selection menu,
- ③ the legend and information about the level selected,
- ④ information graphics if available,
- ⑤ info texts that correspond with the content of the layer(s) if available,
- ⑥ besides links to further modules in the portal menu links to the sub-menus of the module:
  - backgrounders
  - complex information graphics
  - glossary
  - bibliography
  - short manual

The module “environmental safety” is divided in two thematic fields:

- ① *Mineral deposits and their distribution*
- ② *Resource conflicts*
- ③ *Resource control regime*



By clicking on the   symbol an explanatory backgrounder on the topics appear in a pop-up window.

By clicking on the name of a sub-topic or a single layer you get more information about it.

One example is given on the next page.

The screenshot shows a web interface with a map on the left and a pop-up window in the center. The pop-up window has a title bar with a close button (X) and a hand cursor icon. The main content of the pop-up is a definition of environmental security. At the bottom right of the pop-up is a 'Close' button. The background map shows a portion of North America with a search bar and a 'Hide layer navigation' button.

### What is environmental security?

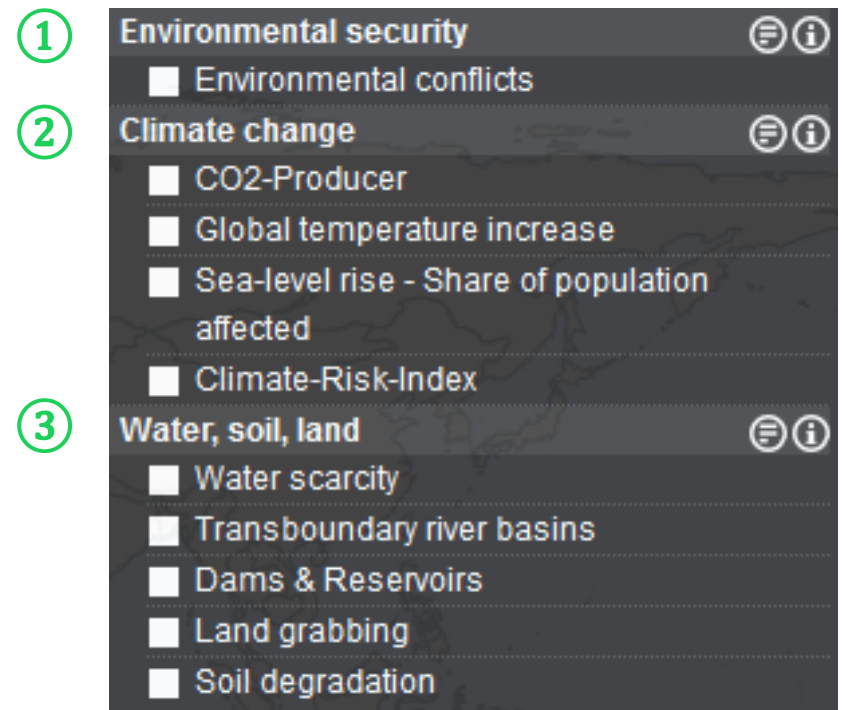
The term "environmental security" expands the classic, narrowly defined understanding of security. They evolved alongside the discussions beginning in the 1980s about climate change. The discussions held in the 1990s on human security also brought the concept of environmental security further along. It attempts to describe possible links between climate change caused by human activity and the threat to security that can be inferred from that.

While climate conflicts are controversial in scientific circles, environmental conflicts are already real, existing, observable disputes. It should be noted, however, that the processes that ultimately lead to conflicts prove to be highly complex and dynamic. Peace and conflict researchers warn against reducing the causes for conflict to merely environmental degradation—and thereby simplifying the network of causes. Hence, until now it has been impossible to empirically prove a conflict arising from purely environmental causes. Environmental destruction or degradation can function as a trigger or accelerating factor in a complex causal network.

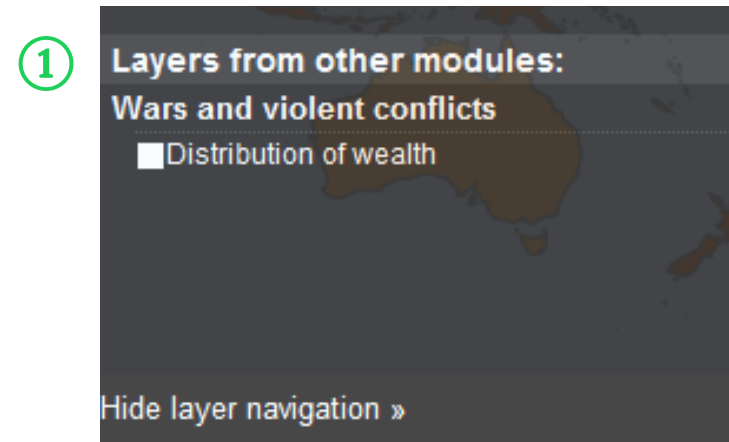
Close

Example definition from (  ) the sub-chapter "*Mineral deposits and their distribution*".

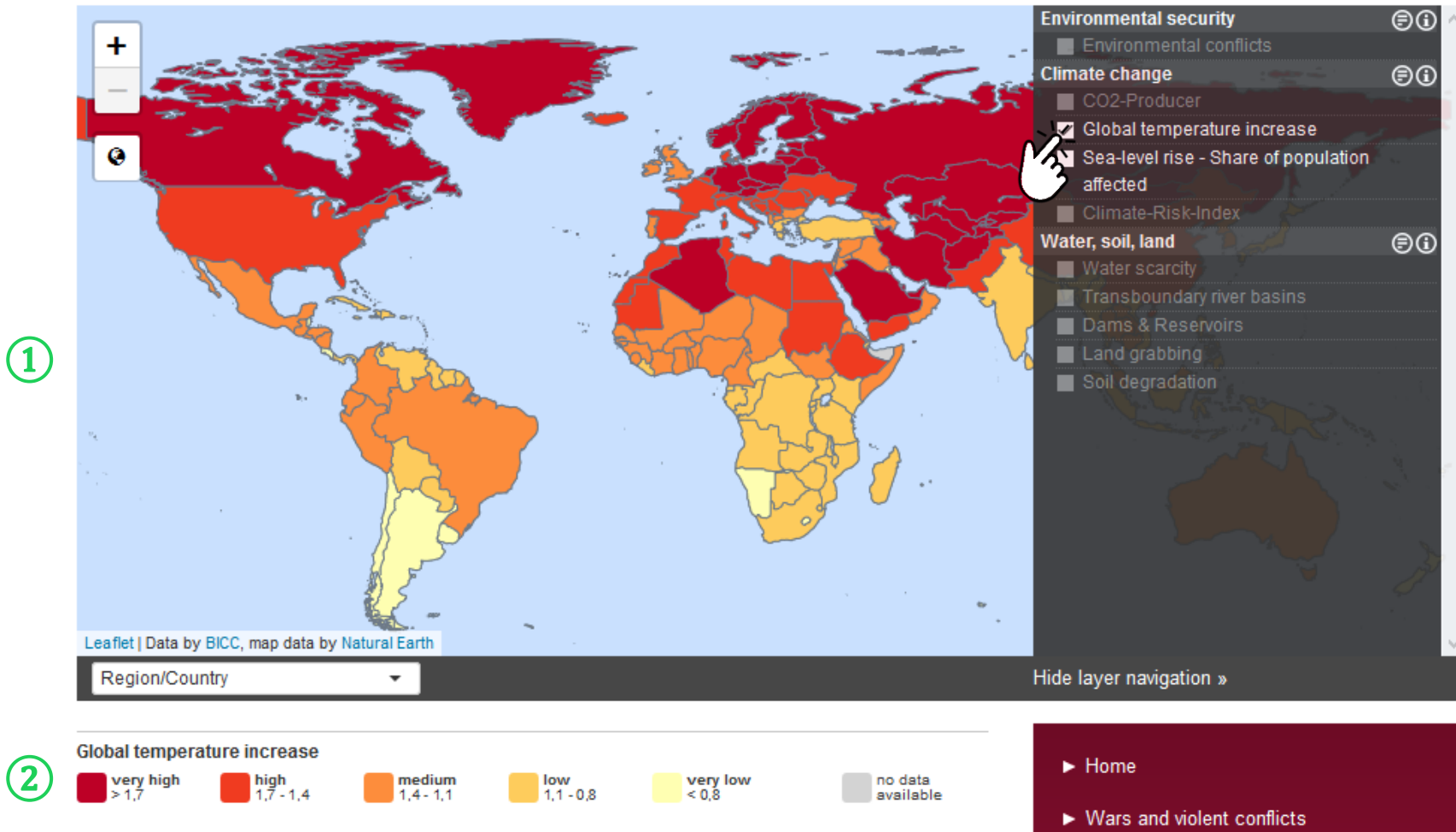
- ① The topic of environmental safety informs about current research on environmental conflicts.
- ② The topic of climate change provides an overview of the main causes and consequences of global warming.
- ③ The topic "water, soil, land" informs about availability as well as consequences of human use of natural resources.



- ① After having selected a map layer, another section (Layers from other modules) is shown in some cases below the thematic fields of the module, which permits you to combine **additional layers from other modules** with that layer.

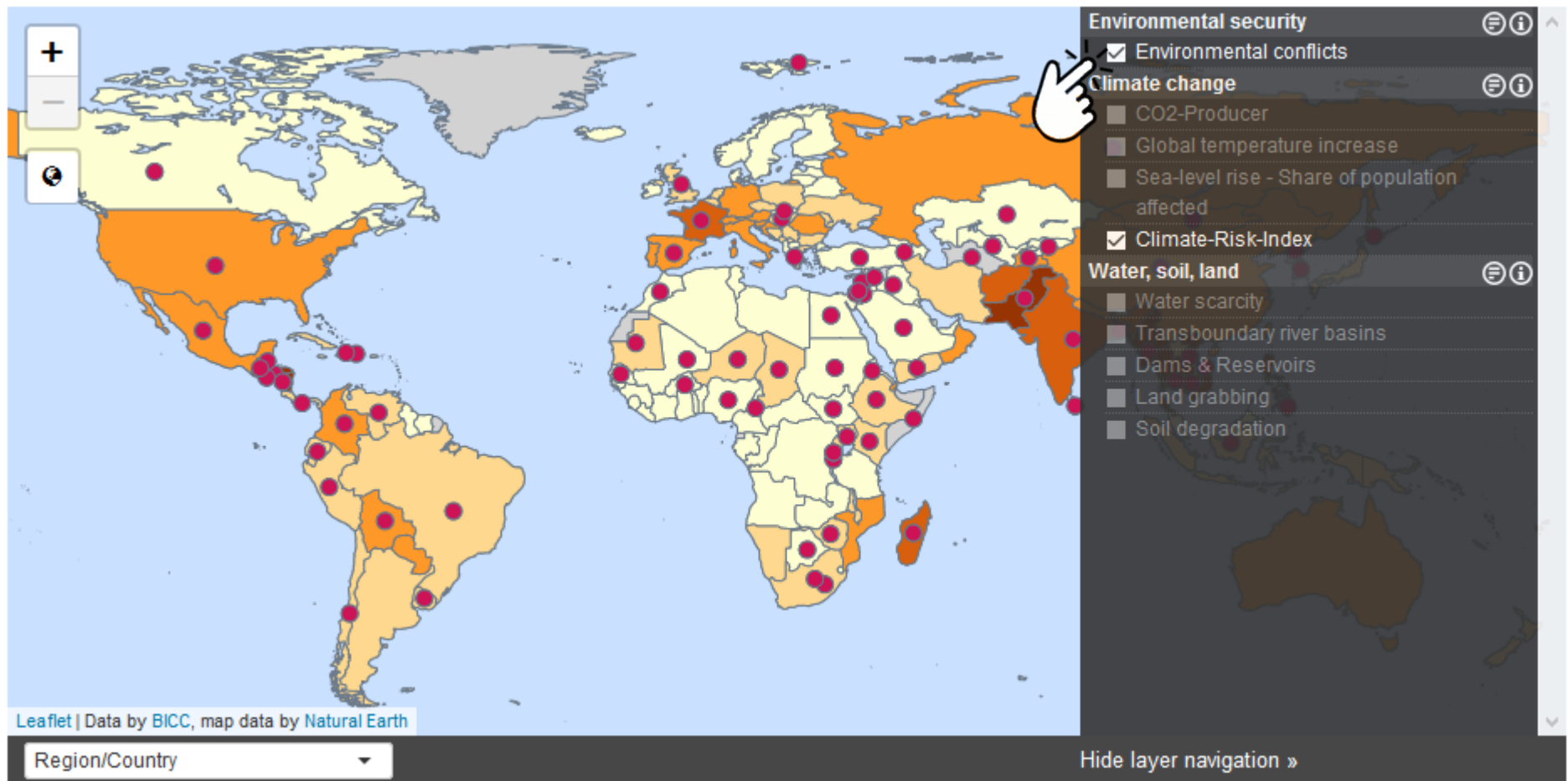


When you click on a selection box in the level selection menu, the information is loaded into the map window ①, and a legend with explanations is shown below the map window ②.





When you have selected a map layer, other layers of the module are greyed out. Only those layers in the level selection menu remain active that can be combined with the already selected layer(s). You can select up to three levels of information at the same time.



Having selected one or more map layers, you can call up short explanations on the information shown in the map window by clicking on the name of the respective map layer in the level selection menu. This information is shown in a pop-up window.

**Infotext**  
**Environmental conflicts**  
This map layer provides information on the countries in which environmental conflicts have arisen to date.

**Example: How to read the map:**  
In Ethiopia, environmental conflicts have occurred in the course of climate change and degradation.

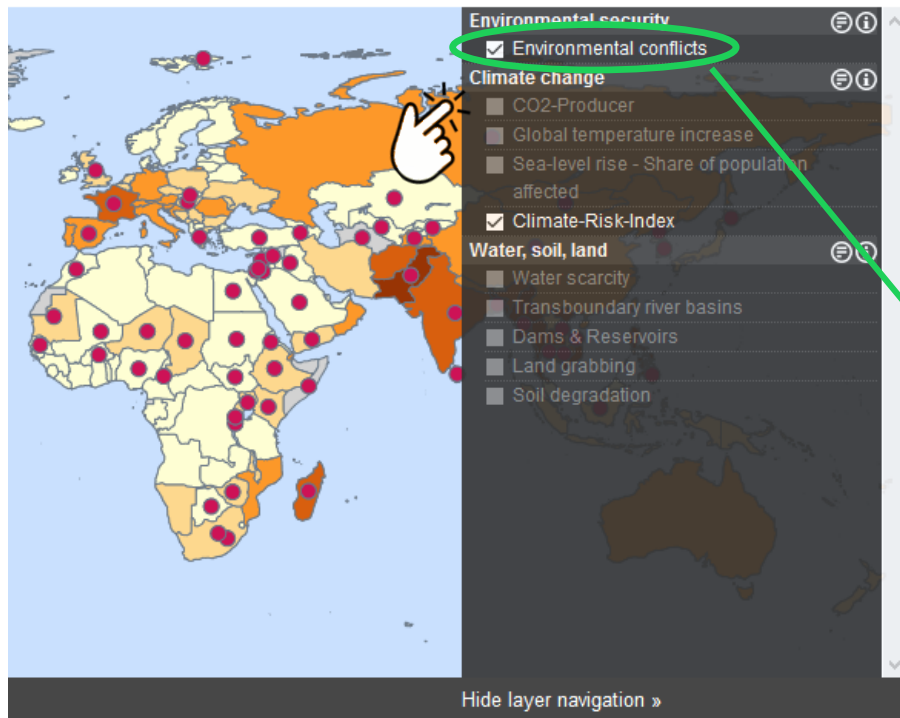
**Data sources:**

- Carius et al. (2006): World Map of Environmental Conflicts  
Following on from theoretical studies on approaches to definitions and categorization, Carius et al. published the "World Map of Environmental Conflicts" in 2006, which examined a large number of case studies for the first time. To this end, empirical conflict data were analyzed and systematically entered into a database. Although at a global level it was impossible to identify predominant types, the authors were able to single out various regional types of environmental conflict. The results of this study were also published in the German Advisory Council on Global Change's (WGBU) flagship report "World in Transition: Climate Change as a Security Risk". The authors of the study point out that the number of conflicts examined is too small to carry out a meaningful classification by type – the majority of known environmental conflicts have not yet been scientifically examined.
- Ackva et al. (2015): ECC Factbook  
The ECC (Environment, Conflict and Cooperation) Factbook was developed in the course of the G7 report "A New Climate for Peace" and illustrates, on the basis of more than 100 case studies, the complex relationships between climate change, environmental changes, and state fragility. The report, in which different independent think tanks from Germany, France, the United Kingdom and the United States were involved, analyzed the effects of climate change on the stability of states. The report's key message is that climate change constitutes one of the main threats to security in the 21st century. With the help of the ECC Factbook, 116 conflicts in total can be compared with regard to causes, intensity and effects.

**Links:**

- Carius, A., Tänzler, D., & Winterstein, J. (2006). World Map of Environmental Conflicts: Approaches to typological classification. Expertise for the flagship report "World in Transition: Climate Change as a Security Risk". Berlin: WBGU. {pdf} (German)
- Ackva, J., Pohl, B., Detges, A., Defard, C., Noorbergen, B., & Rustige, J. (2015). The ECC Factbook. Berlin: Adelphi.

Info texts and information graphics offer further, more in-depth information on the data and information prepared as maps. After having selected one layer in the level selection menu, all info texts linked with individual map layers **①** and corresponding information graphics **②** are shown below the map window and can be opened from there.



### Environmental conflicts

This map layer provides information on which countries have experienced environmental conflicts to date.

In the last few decades, the topic of environmental security has been steadily brought to the public eye and, at the latest since the start of the newly inflamed debate on the links between climate change and conflicts, it is back on the global political agenda. Research groups from the United States and Europe investigated numerous conflicts in terms of environmental degradation as a cause of conflict. The data in the map originate for the most part from a study which was produced in the context of the WBGU (German Council on Global Change) flagship report "World in Transition: Climate Change as a Security Risk". In total 73 conflicts were analyzed for this and classified by type regarding the cause of conflict and intensity. Even though no predominant type of environmental conflict stood out globally-speaking, they were able to nonetheless observe the following four regional types of environmental conflicts: Land use and soil degradation conflicts in Central America, soil degradation conflicts in South America in which the loss of biodiversity plays an important role, water and soil degradation conflicts in the Sahel belt, as well as water conflicts in the Middle East. Additionally, data from the online portal ECC's (Environment, Conflict and Cooperation) Factbook were also consulted. This Factbook analyzed the complex relationships between climate change, environmental changes and state fragility for more than 100 conflicts. In relation to the conflicts presented, it should be noted first that environmental degradation and environmental stress, respectively, are merely individual factors in a complex network of causes. Consequently, the socio-economic and political contexts must always be taken into consideration. Second, the intensity of conflicts varies.

Sources: [Carius et al. \(2006\)](#), [Ackva et al. \(2015\)](#)

①



Infotext

### Environmental refugees

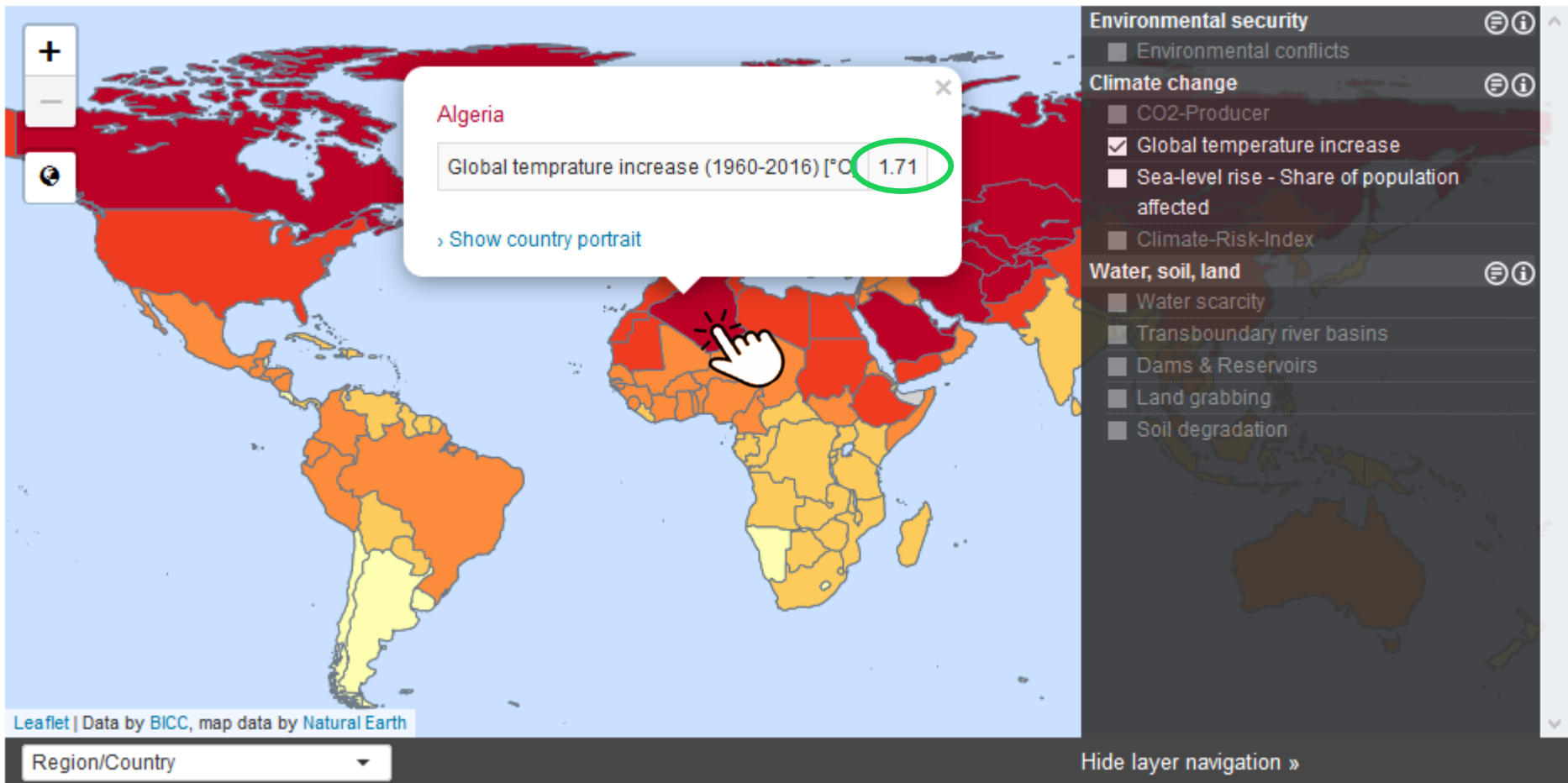
It is more than likely that climate change will lead to such profound and widespread environmental degradation that in many places people will have to leave their homes. In a UN Environment Programme Paper, author Essam El-Hinnawi had already warned of this migratory outflow in 1985.

More ...

With the *country/region options menu* below the map, you can directly select countries or regions in the map which will be zoomed in in the map window. For this, you will have to select regions or countries from a drop-down menu ① or directly key in names of countries or regions in the search field.

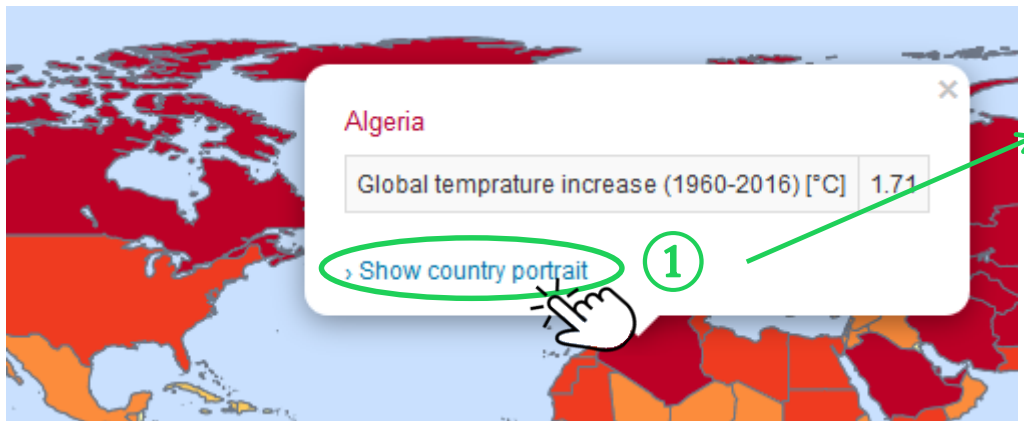
You can show/hide the menu to select topic-related maps by clicking the control element "level selection." ②

You can obtain more detailed data on selected map layers on individual countries when clicking on a country of your choice, for instance, the Iran . *The Iran produced 4.2 per cent of the global gas production in 2013.*



All country data made available via the map layers are set out in tabular form in the country portraits. The **short manual for the entire portal** describes in detail how you can access them from the portal menu. You can access the manual from each module via the sub-menu *short manual*.

You can also call up the country portraits within a module. Via the on-click element of the interactive map—it opens after having clicked on a country—simply click "show country portrait". ①



Algeria



Compare with:

Country 2: (Please select a country)

Country 3: (Please select a country)

Wars and violent conflicts

Indicator	Algeria
Conflict involvement as primary party (2016)	1 (1 x intra-state)
Conflict involvement as supporting party	-
Number of victims of war as per 100,000 inhabitants (2016)	0.21

You can compare selected countries with the function **country comparison**. ①

In the comparison menu, you can select up to two further countries that you want to compare. The results are shown below the comparison menu as a table. ②



Afghanistan



- ▶ Home
- ▶ Wars and Peace
- ▶ Military
- ▶ Natural
- ▶ Convent
- ▶ Weapon
- ▶ Arms co
- ▶ Environ
- ▶ Country
- ▶ Data tab
- ▶ Navigat
- ▶ Imprint

Country: Afghanistan

Compare with:

Country 1: (Please select a country) 1

Country 3: (Please select a country)

Wars and violent conflicts

Indicator	Afghanistan
Conflict involvement as primary party (2016)	2 (2 x internationalised intra-state)
Conflict involvement as supporting party (2016)	2 (2 x internationalised intra-state)

Country: Afghanistan

Compare with:

Country 2: Tunisia

Country 3: Germany

Wars and violent conflicts

Indicator	Afghanistan	Tunisia	Germany
Conflict involvement as primary party (2016)	2 (2 x internationalised intra-state)	- <span style="border: 1px solid green; border-radius: 50%; padding: 2px;">2</span>	-
Conflict involvement as supporting party (2016)	2 (2 x internationalised intra-state)	1 (1 x internationalised intra-state)	1 (1 x internationalised intra-state)

- ▶ Home
- ▶ Wars and violent conflicts
- ▶ Peace and demobilisation
- ▶ Military capacities and means
- ▶ **Natural resources and conflicts**
  - ▶ In-depth articles
  - ▶ Infographics
  - ▶ Glossary
  - ▶ List of sources
- ▶ Conventional Weapons
- ▶ Weapons of mass destruction
- ▶ Arms control
- ▶ Environmental safety
- ▶ Country portraits
- ▶ Data tables
- ▶ Navigation and operation
- ▶ Imprint

1

Besides links to the short manuals and the explanatory film, the menu of the module ① offers redirections to overview pages for backgrounders, info texts and information graphics.

**In-depth articles**

**Diamond Production**  
Background  
**Natural resources and their distribution**  
Resources, or natural resources in general, are all natural materials that people can use and that for that reason have some kind of importance attached to them. The economic and societal importance and the value of natural resources can change.  
More ...

**Natural resources - Source of income and cause for conflicts**  
Background  
Conflicts around natural resources—today, a highly relevant topic. Often, threat scenarios are painted in which the increasing competition for natural resources worldwide gives cause to predict resource.  
More ...

**Resource control regimes - Contributions to conflict prevention**  
Background  
Resource-rich countries are not automatically wealthy. On the contrary, war and violence prevail in some of these countries. Resource-related conflicts are ignited by an unjust distribution of the proceeds or when living conditions in resource-rich regions deteriorate.  
More ...

PDF PNG

The map shows the diamond production measured in carat in 2013, and the membership of states in the Kimberley Process.

With one click, you can open, print or save the information graphics as a pdf (A4 format).



- ▶ Home
- ▶ Wars and violent conflicts
- ▶ Peace and demobilisation
- ▶ Military capacities and means
- ▶ **Natural resources and conflicts**
  - ▶ In-depth articles
  - ▶ Infographics
  - ▶ Glossary
  - ▶ List of sources
- ▶ Conventional Weapons
- ▶ Weapons of mass destruction
- ▶ Arms control
- ▶ Environmental safety
- ▶ Country portraits
- ▶ Data tables
- ▶ Navigation and operation
- ▶ Imprint



1

The glossary explains important terms occurring in the module. You can find explanations and links to the sources used for the modules in the bibliography. You can access both overview pages also via the module menu. ①

**List of sources**

**BICC - RCM**  
BICC is an independent, no-profit organization for peace and conflict research.

From 1996 to 2006, BICC conducted the annual publication "World Mineral Resources" (WMR), which provides information on the variable Resource Dependence Ratio (RDR) of natural resources (oil, gas, coal, copper, rubber) of the total export products of the world.

**Links:**

- BICC - Resource Dependence Ratio

**bmwfw**  
In the annual publication "World Mineral Resources" (WMR), the mineral production of the 63 mineral producing countries is pooled and statistically analyzed. The WMR also provides information on the production of the 63 mineral producing countries according to producing countries.

**Links:**

- bmwfw - World Mineral Resources

**Glossary**

**The Arctic**  
The Arctic is a polar region located at the northernmost part of the earth. It is mostly covered with ice. Its area is defined, depending on which definition is used, either as north of the Arctic circle (66°30'N) or the 10°C-isotherm, an imaginary line showing where the average temperature for July is below 10 °C (50 °F). The Arctic region covers the northern parts of three continents: North America, Asia, and Europe. The Arctic region is increasingly in the focus of geopolitical and geoeconomic interests as new shipping routes have been and will be accessed due to the progressive melting of the ice. Some of the territorial claims resulting from this are the subject of current inter-state disputes, as disputing countries suspect larger, economically lucrative deposits of oil, gas, minerals and rare earths.

**Causes of conflict and conflict issue**  
Conflicts and wars escalate because different parties disagree with each other. A conflict issue is often understood as what the conflict appears to be about and what is communicated by the parties to the conflict. A conflict issue can be material, such as natural resources, or immaterial, such as an ideology. There are many and complex causes of conflicts. Causes of conflict are often events that lead to the outbreak of violence in conflicts. They often influence each other and have a temporal component. In its conflict matrix, BICC has defined five different categories of causes of a conflict. For more information, see the backgrounder on "Causes of violent conflicts."

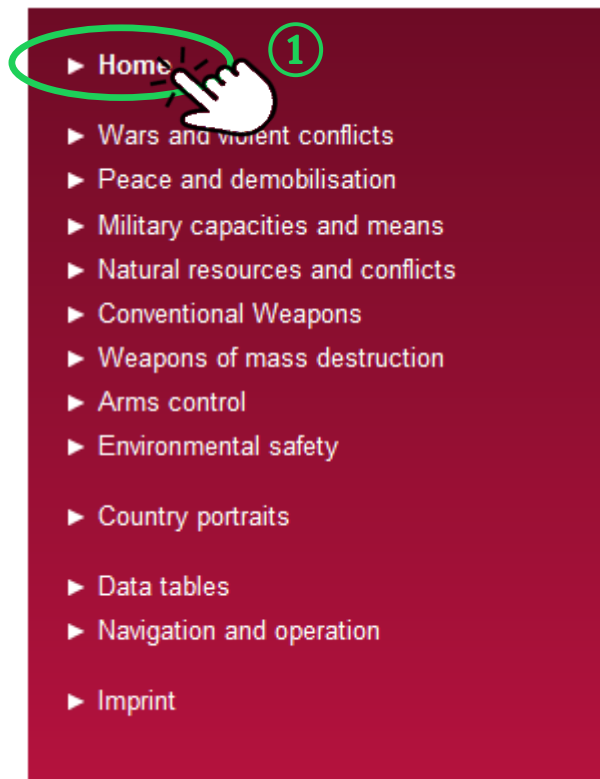
In the following, we will compare the conflict issues as defined by the Heidelberg Institute for International Conflict Research (HIIC) and the types of war as defined by the Working Group for Research on the Causes of War (AKUF).

**HIIC:** Autonomy, secession, territory, resources, subnational predominance. The conflict issue subnational predominance characterizes conflicts in which an intra-state group attempts to attain control over a territory or a population without formulating or pursuing the goal of exercising power over the entire state (national power) or that of establishing a new state (secession). Decolonization, system/ideology, national power, international power, other.

**AKUF:** Anti-regime wars, wars for autonomy or wars of secession, interstate wars, wars of decolonization, other wars.

The **portal menu** ① and the **page end menu** ② offer easy access to important pages and menus of the portal from all pages of the Information Portal.

The short manual to the entire portal, which you can access from each module via the sub-menu *short manual* and via the menu *navigation and operation* offers a basic introduction to the structure and functioning of the Information Portal.



At the end of each page of the Information Portal, you will be able to access **data tables, country portraits** and the overview page of **navigation and operation**.



#### Data tables

For some select map layers, the information portal 'War and Peace' provides the user with all used data sets as tables.

More ...

②



#### Country portraits

In the country reports, data and information are collected by country and put into tables that are used in the modules as a basis for maps and illustrations.

More ...



#### Navigation and operation

The information and data of each module are primarily made available as selectable map layers and are complemented by texts and graphs. The map layers can be found on the right hand side and are listed according to themes and sub-themes.

More ...

All information on the publishers, editors, contacts and topics regarding data protection is provided in the **imprint**.

You can access the imprint via the link in the portal menu **①** or or via page end navigation. **②**



The Imprint page content is displayed in a white box with a black border. It contains the following text:

## Imprint

**Service provider according to § 5 of the German Teleservices Act (TMG)**  
© Bundeszentrale für politische Bildung  
Adenauerallee 86  
53113 Bonn

**Person responsible according to § 55 of the Interstate Broadcasting Agreement (RStV)**  
Thorsten Schilling  
Head of the Multimedia Department  
The internet portal war and peace does not reflect the views of the Federal Agency for Civic Education.

**Editor-in-Chief**  
Thorsten Schilling

**Editorial Staff bpb**  
Matthias Jung

warpp.info (Information portal on war and peace) is a service jointly provided by the [Federal Agency for Civic Education](#) and [Bonn International Center for Conversion](#).

The information portal is—as regards specialized content, functionality and technology—developed, compiled and implemented by the Bonn International Center for Conversion (BICC).

Further information: [www.bicc.de](http://www.bicc.de)

**Overall project management at BICC:**  
Lars Wirkus

**Authors:** Michael Ashkenazi, Hannes Blitza, Marc von Boemcken, Claudia Breitung, Lena Guesnet, Elke

