

Mapping for a Sustainable World – Beware of Defaults and Pitfalls



The International Cartographic Association and the United Nations recently published the book *Mapping for a sustainable world*. The objective was to inform those interested in visualizing SDG indicator data about best practices in cartographic design and avoiding pitfalls.

As you no doubt are aware, the SDGs relate to social, economic and environmental challenges, and are

intended to stimulate action. To achieve the SDGs by 2030, governments and people need to understand the challenges and monitor their progress.

A quote from the book explains how cartography can support this: “Well-designed maps and diagrams support this process because they effectively illustrate spatio-temporal patterns, such as global population growth, socioeconomic disparities, and climate change. Maps reduce complexity and reveal spatial patterns that might otherwise go unnoticed. As such, they help us to better understand the relationship between humans and their environments as well as enable us to monitor SDG indicators and communicate their uneven global footprints. These visualizations support decision-making by local and national authorities as well as promote public awareness of global issues to encourage these authorities to act.”

The design of maps and diagrams is not an activity to be executed without a plan, and it is sometimes less straightforward than people may think. The figure in this column provides an overview of the cartographic planning and design process. The big blue boxes represent the six steps usually followed, and the small print lists the actions that accompany these steps. These actions are not necessarily complete and will vary from project to project. The yellow boxes provide some words of caution.

What, then, are the typical problems and pitfalls? Is it possible to follow these steps and end up with the single best map? Those of you with some experience will know that when you ask five different cartographers to design and create a map based on the same dataset, you will end up with five different maps that are probably all appropriate and adhere to the accepted design guidelines.

However, some designs should be avoided because they could result in flawed or even misleading maps and diagrams (suggestion: read Monmonier’s *How to Lie with Maps*). Problems regularly originate from improper data handling, distracting symbols and text, confusing map elements, and the use – or misuse – of software defaults. This last factor is a particular hindrance to novice map-makers, who are likely to assume that entering the data into the software and pushing a few buttons will result in a good map. This is where choropleth maps displaying absolute values and maps with rainbow colour scales to show densities originate from, not to mention the choice of map projections and enumeration units and the application of classification methods. Most map-makers have good intentions, but the message they want to bring across is probably getting lost because they fall into the obvious traps. The book aims to ensure that this does not happen, and the authors wrote the book to make the world a better place with maps.

Mapping for a sustainable world is available for free at the United Nations iLibrary: <https://www.un-ilibrary.org/content/books/9789216040468/read>



The steps of the cartographic planning and design process and some words of caution (based on Figure 2.1 from *Mapping for a Sustainable World*).