

Geospatial Information Section

Office for Information and Communications Technology



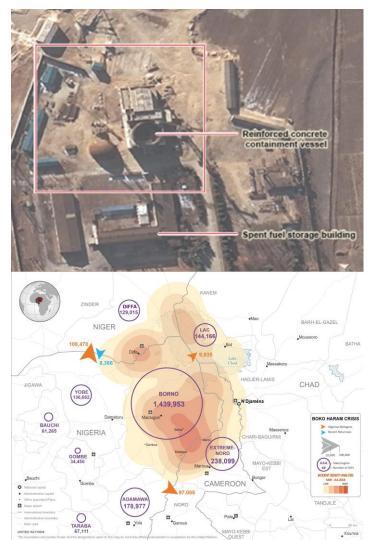
How to measure and monitor the sustainable development goals without geography, place, and location?

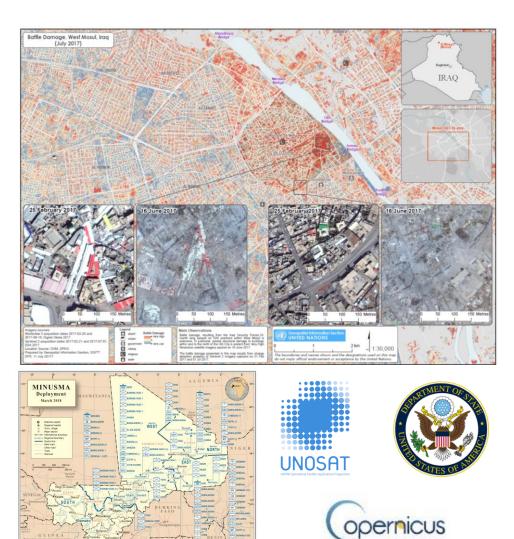






Providing geospatial information, imagery analysis and cartographic products to the **United Nations operations** and to the **Security Council and its Sanction Committees**

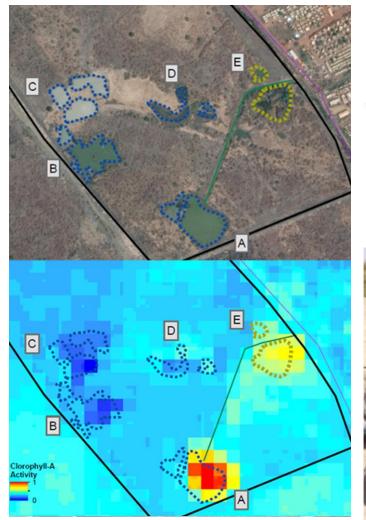


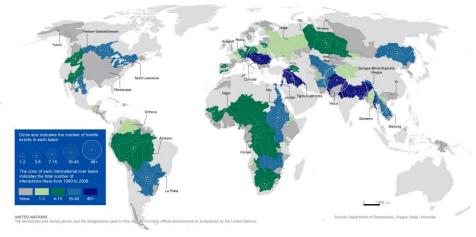






Support the engineering operations of the organization to access water for **communities and operations** with geospatial technology (SAR) and GPR



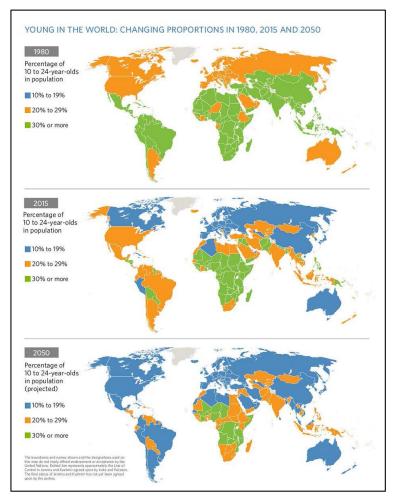


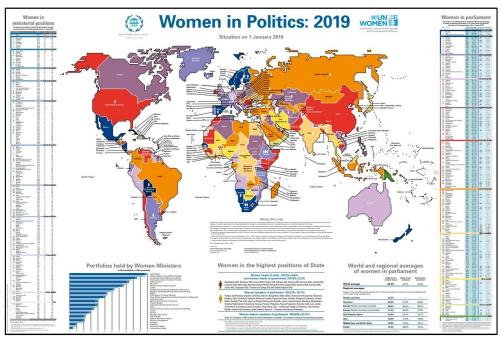






Providing geospatial data and advice on cartography for mapping the world to 80 branches of the United Nations system on behalf of the UN Publication Board



































MAPPING

FOR A SUSTAINABLE WORLD





Raise awareness on the use and practice of geospatial information and cartography to map the sustainable development goals

4.1 Thematic Map Types

Thematic maps depict the variation of one (or sometimes several) geographic phenomenon across the landscape, mapping spatial and attribute information together. Meeting the UN Sustainable Development Goals requires thematic mapping, as the SDG indicators serve as thematic proxies for understanding and addressing our planet's most pressing problems. Thematic maps enable geographic imagination and spatial thinking, and often represent abstract or statistical concepts that cannot be observed directly.

Thematic maps primarily depict information that is enumerated within polygonal units, which includes many of the SDG indicators. Choropleth maps shade enumeration units by their attribute values. Proportional symbol maps scale point symbols placed at the centroids of enumeration units by their attribute values. Dot density maps adjust the density of randomly placed dots within enumeration units by their attribute values. Finally, isoline maps interpolate attribute values from the centroids of enumeration units, producing a new set

di in thus different thematic maps of the same SDG indicator may lead to different conclusions even though the maps depict the same attribute data. Visual metaphors are particularly pertinent when mapping enumerated data, as information about who the phenomenon exists within space (discrete versus continuous) and varies across space (abruptly vs. smoothly) is lost during the tallying process. Thus, different thematic map types evoke one of four distinct visual metaphors about the mapped phenomenon.

Choropleth maps evoke a metaphor of continuous and abrupt phenomena, and thus congruently match governmental activities and policies that are fixed to political units. Proportional symbol evoke a discrete and abrupt metaphor, and congruently match economic sites of production and distribution, like mines, factories, offices, and stores. Dot density maps evoke a discrete and smooth metaphor, and thus congruently match human and social phenomena in their depiction of individual bodies. Finally, isoline maps evoke a continuous and smooth metaphor, and thus congruently match environments.

nena.

a)

C

B

A

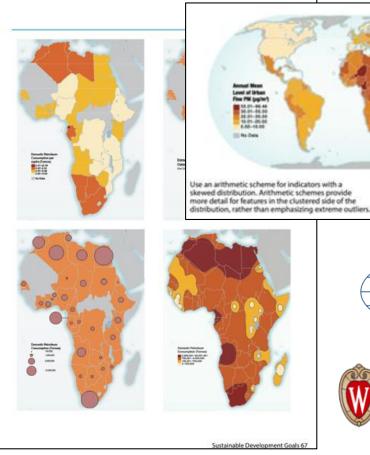
b)

low
medium
high

Figure 2.4-1 Measurement levels: a) nominal, b) order, c) interval, d) ratio

Ratio data is quantitative and the values are counted or calculated from a meaningful zero value. An example is the number of inhabitants for each country (Figure 2.4-1 a). Most enumerated attributes are reported at ratio level, with the fixed zero indicating the baseline count of zero.

Interval data also is quantitative, but their absolute zero is arbitrary and thus limits estimation of relative magnitudes. An example is temperature in Celsius zero represents the point at which water freezes and not the total absence of heat (i.e.,





University of Twente

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Providing publicly geospatial data on administrative boundaries (SALB) to promote disaggregated data to link between statistics and geographic location and for comprehensive risk/hazard assessment



Support reporting on "the Sustainable Development Goals in cooperation with the United Nations system, based on the global indicator framework" [para 83]





UNITED NATIONS

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