water

an atlas

guerrilla cartography
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#water in #ourchangingclimate

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Water grabbing is a global phenomenon in which powerful players deprive individuals or local communities of water resources by reallocating the water asset for personal gain.

Water disputes usually arise from opposing interests of public or private water users and while not a new phenomenon, the practice has taken new forms in recent years.

The most important instances of water grabbing include: unsustainable water-consuming farming for the overall purpose of food or biofuels production (linked to the phenomenon known as land grabbing); mining and water contamination (e.g. the practice of fracking for the extraction of shale gasses); privatization of services and ecosystems management (e.g. river basins, big lakes, aqueducts, etc.); big dams (especially for hydropower generation).

Although debatable, the estimated quantity of water grabbed for agricultural purposes are about $308 \times 10^9 \text{ m}^3 \cdot \text{yr}^{-1}$ of rainwaters and $146 \times 10^9 \text{ m}^3 \cdot \text{yr}^{-1}$ of irrigation waters (equivalent, as a whole, to nearly 284 million swimming pools, $1600 \text{ m}^3$ each). The US, India, United Arab Emirates, United Kingdom, Egypt, China and Israel grab about 60% of the water resources through land grabbing (Rulli and others, 2013).

The map shows the assessment of grabbed water in the top 24 grabbed countries, also accounting for about 90% of the global grabbed land. Survey data refer to the water grabbed for agricultural purposes at national level.

Green water refers to rainwater used for agricultural production

Blue water is the water used and lost through crop and gross irrigation

454 $\times 10^9 \text{ m}^3$

Total water grabbed ($10^9 \text{ m}^3$) in the 24 top grabbed countries, also accounting for about 90% of the global grabbed land

Water grabbed ($10^9 \text{ m}^3$)

- > 30
- 11 - 30
- 5 - 10
- < 5

Total water grabbed per continent (%)

- Africa 48
- Oceania 2.5
- Asia 36.8
- America 6.8

Researcher: G. Mauro, G. Petrarulo - Cartographer: G. Petrarulo
Source: Rulli and others, (http://www.pnas.org/content/110/3/892), 2013
thank you to Elliot Waring, videographer. Elliot’s Guerrilla Cartography would like to offer a special thank you to Elliot Waring, videographer. Elliot’s work was instrumental to the success of our Kickstarter campaign for Food: An Atlas, and his name should have been on the title page. We regret the omission and thank Elliot for his excellent work then and his help with the water atlas more recently.

**water: an atlas** is a crowd-sourced and crowd-funded guerrilla cartography and publishing project. This atlas continues the collaborative spirit and narrative range originally brought to life in our first volume, *Food: An Atlas*.

Water, just like food, is required to sustain human life—and so it is a natural choice for our second published project. In these pages you can explore how humans interface with water: controlling, politicizing, commodifying, and polluting it; how water is a harbinger of climate change and how water inspires our imagination and exploration.

Like the food atlas project, *Water: An Atlas* garnered contributions from scores of cartographers, researchers and designers from around the world. This volume also marks Guerrilla Cartography's first publication as a California-based 501(c)(3) nonprofit. Scores of cartographers and food researchers fuse traditional cartography, poster art, infographics, and journalistic text-blocking to render the map as a narrative device. In all more than 120 collaborators came together in the spirit of knowledge-caching to create this volume.