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guerrilla cartography

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WATER GRABBING

OR THE APPROPRIATION OF FINITE WATER RESOURCES

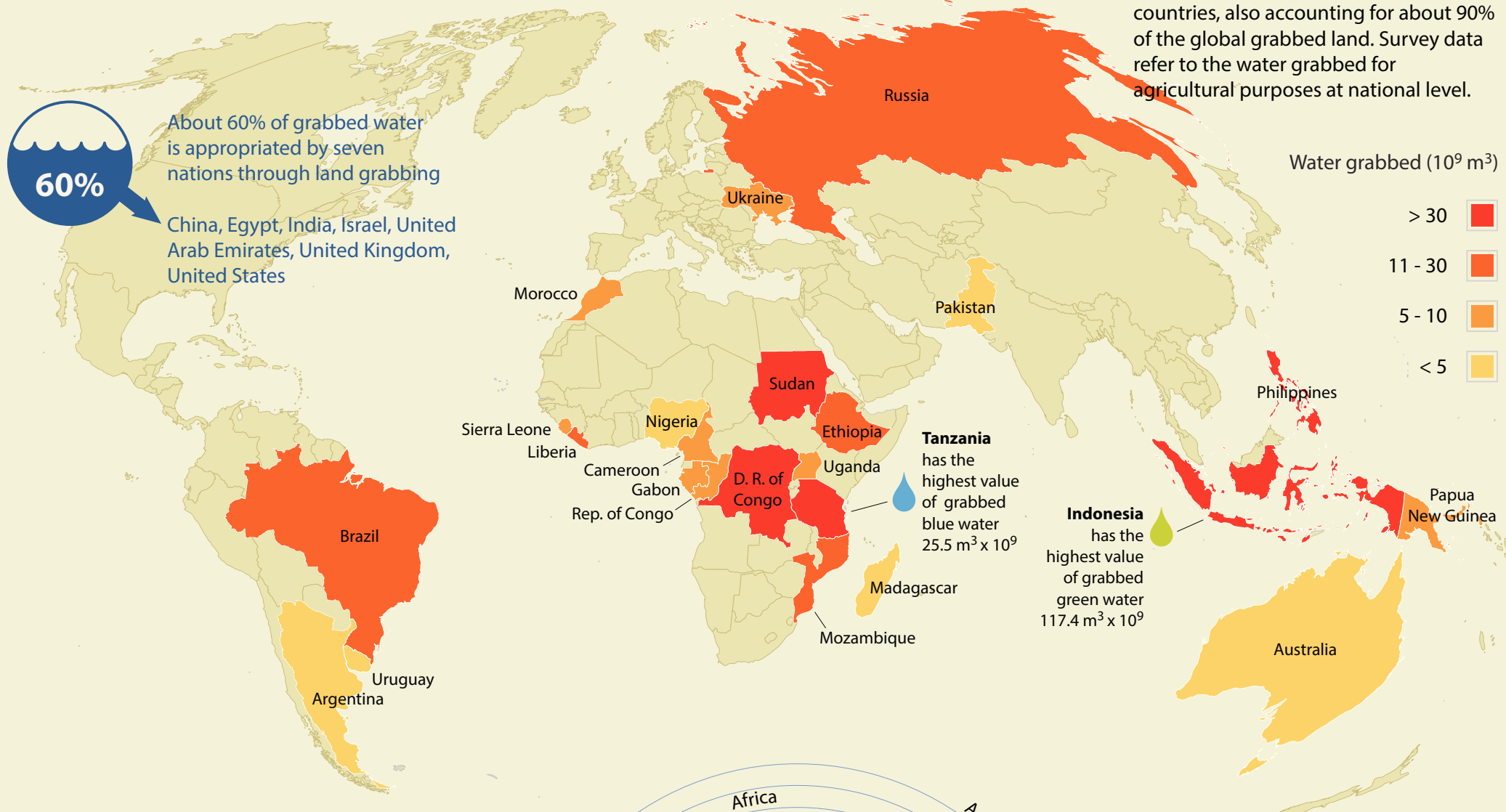
Water grabbing is a global phenomenon in which powerful players deprive individuals or local communities of water resources by reallocating the water asset for personal gain.

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 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.



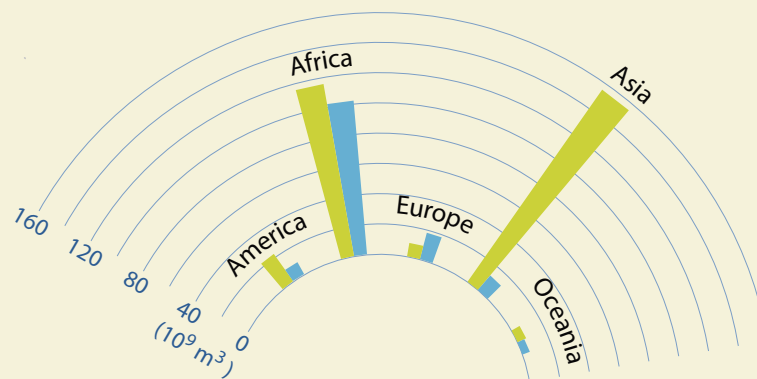
Tanzania has the highest value of grabbed blue water $25.5 \text{ m}^3 \times 10^9$

Indonesia has the highest value of grabbed green water $117.4 \text{ m}^3 \times 10^9$

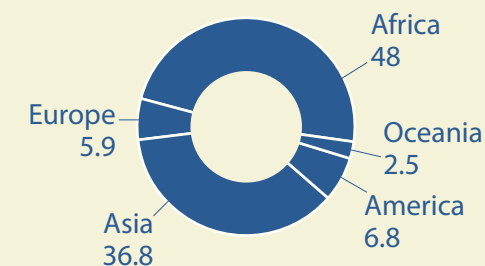
Green water refers to rainwater used for agricultural production

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 m^3) in the 24 top grabbed countries, also accounting for about 90% of the global grabbed land



Total water grabbed per continent (%)



acknowledgments

Alexandre Gonçalves, Alfonso Chávez Labastida, Andrea Calori, Andrea Robertson, Angela Durden, Anikka, Anne Baudouin, Anthony Burris, Ashton Wesner, Athelstan Spilhaus Sr., Bene Colenbrander, Bernardo Loureiro, Bill Mills, Bruce Sharky, C. Geldof, The Cal Academy of Sciences Steinhardt Aquarium tidepool area, Carmen Taylor, Caroline Goossens, Chris Free, Chris Lo, Christine Kelly, Corina Chung, Daniela MacLeod, David R. Kardatzke, The deLight of the interwoven fabric of the place itSelf; the Other, The DFG and to our working group (especially Jana Lüdemann & Leona Faulstich), Divya Narayanan, DJ Fiore, Dusty Pate, Ellen Burke, Eran Hendrickx, Eric Ettliger, Erica Milwain, Esbern Holmes, European Space Agency, Francesca Federici, Francesca Leder, George Collins, Girish Balakrishnan, Greg Andrew, Harold Calvin Marston Morse, Heather Sparks, Hope Mizzell, Howe Chan, Iconoclasistas, Ilana Martin, Institute for Sustainable Economic, Educational, and Environmental Design (I-SEED), Isha Ray, Iván Pascual García, Jaime Andres Rodríguez, Jen McIntosh, Jennifer Catsos, Jennifer Simmons, jim hagen, Jody Weseman, Jorgen Markussen, José Bueno, Joseph Dunbar, Kathleen Lohse, Katie Linnen, Katie Peek, Katsuhiko Oda, Kedar Iyer, Kimiora Ward, Kollektiv Orangotango (Silke Greth), Kurt Fesenmyer, Landscape Architecture students of California Polytechnic State University, San Luis Obispo, Lauren Sidler, Linda Nowlan, Loren Michael Mortimer, Lucky Nkali, Luis de Campos Jr., M.C. Abbott, Mark Malsick, Markus Ringel, Matt Baker, Maurilio Toro Yescas, Maximino Gregorio Cruz, Miguel Barbosa, Mike Makwela, MMWD Sky Oaks staff, The Nature Conservancy, Neal Parish, Nel Janssens, Ofurhe Igbinedion, Oscar Clark, P. Labarque, Palestinian Authority Ministry of Planning, Parth Sheth, Patrick Doughty, Paul Daniel Lowman Jr, PE Clark, The people of Cuenca Auqui, Phil Stooke, Professor Pierre Bélanger, Pilar Cereceda Troncoso, Rachel Brahinsky, Rebecca Solnit, Rebecca Waters, Rios e Ruas, Robert Lee Frost, Ron Aiken, Ruth Miller, San Francisco Estuary Institute, Sandie Webb, Shruti Mukhtyar, Smriti Srinivas, Standing Rock Water Protectors, Stephanette Schwartz-Smith, Stephanie Birmingham, Susan Williams, The gracious and generous residents

of Talea, Mexico, Tara Coyt, Tina Gotthardt, Torben Hansen, Tserenchunt Legden, University of California Center for Information Technology in the Interest of Society (UC CITRIS), UC Davis Native American Studies Department, University of California Humanities Research Institute (UCHRI), United Nations Office for the Coordination of Humanitarian Affairs, University of Minnesota Institute on the Environment, Veena Kumar, Watersheds Stewards Program (WSP) 2014–2015 cohort, Watersheds Stewards Program (WSP) Staff, Wes Tyler, Xander Lenc, Zia Schatz

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.

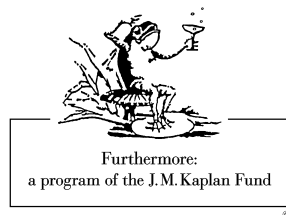
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Guerrilla Cartography wishes to extend grateful acknowledgements for the support of *Water: An Atlas* from Furthermore Grants in Publishing, a program of the J. M. Kaplan Fund.



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Photo Credits Place: Jean-Marie Hullot; Habitat: Mark B Edlund PhD; Control: California Department of Water Resources; (Over)Use: Brett Weinstein; Politics: Tony Webster; Pollution: The Photographer; Imagination: William Buelow Gould; Climate: Wallenrock; Exploration: Daimensoccor

Water: An Atlas (ISBN 978-0-9884272-2-8)
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Printed in Alameda, California, by Excel Graphics on
100% post-consumer recycled paper

Guerrilla Cartography
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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.

