



Transforming global environmental science to become more responsive to diverse user needs

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The contract between science and global governance

- *The objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies (IPCC website)*
- *The mission of IPBES is to strengthen policy and decisions through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development (IPBES website)*

Problems in this contract:

1 lack of effectiveness

- A lack of policy uptake and effectiveness of global environmental assessment efforts
- Questioning what sort of science is needed to respond effectively to social-ecological problems
- Sterman 2008 in Science: *there is no purely technical solution for climate change* “For public policy to be grounded in the hard-won results of climate science, we must now turn our attention to the dynamics of social and political change.

Problems in the contract:

2 lack of legitimacy

- The imposition of western worldviews and governance practices facilitated by science
- The dominant role of quantitative, technical and natural science approaches
- The lack of inclusion and recognition of other ways of knowing, including critical social science, environmental humanities and local and indigenous knowledge systems

Future Earth: Co-production

To build and connect global knowledge to intensify the impact of research and find new ways to accelerate sustainable development....Central to achieving the vision is a commitment to co-design and co-produce knowledge in collaboration with societal partners in order to develop solutions-oriented research that responds to the sustainability challenges facing society (Future Earth website)

IPBES: including multiple worldviews and knowledge systems

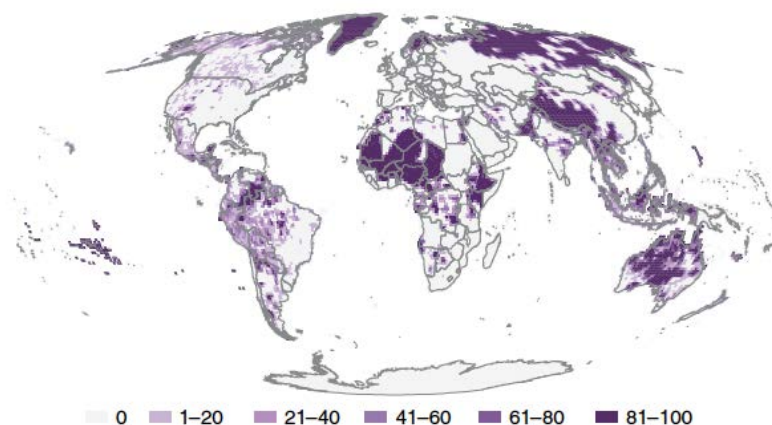
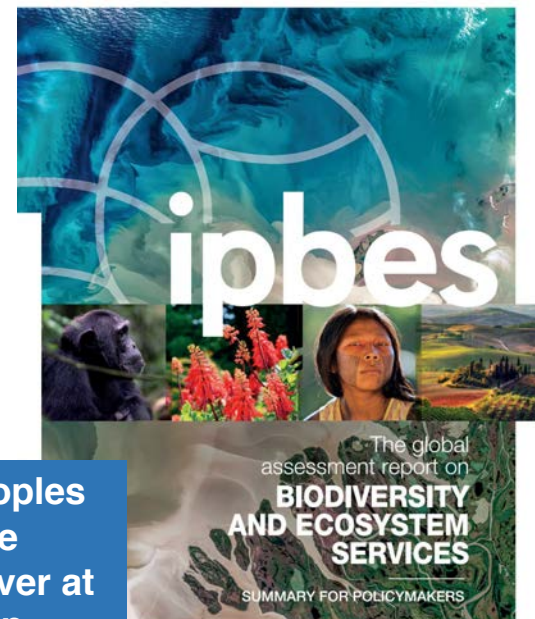


Fig. 1 | Global map of lands managed and/or controlled by Indigenous Peoples (percentage of each degree square mapped as Indigenous in at least one of 127 source documents; Supplementary Information section 2).



Indigenous Peoples manage or have tenure rights over at least ~38 million km² in 87 countries or politically distinct areas on all inhabited continents.

Representing over > ¼ of the world's land surface.

Obstacles to transforming global environmental science

1. Fear of anti-science and anti-environmentalism
2. Commitment to a singular global reality
3. Post-politics and science-policy lock-inns

▪ Taken from Lahsen and Turnhout, under review ERL

1 A fear of anti-science & anti-environmentalism

Back into the ivory tower?

More than ever, we need scientists as guardians of the truth ...

Van Dijck and Saarloos 2017, translated from Dutch

We should reawaken the spirit of the Enlightenment, a respect for science and rationality

Nurse 2012

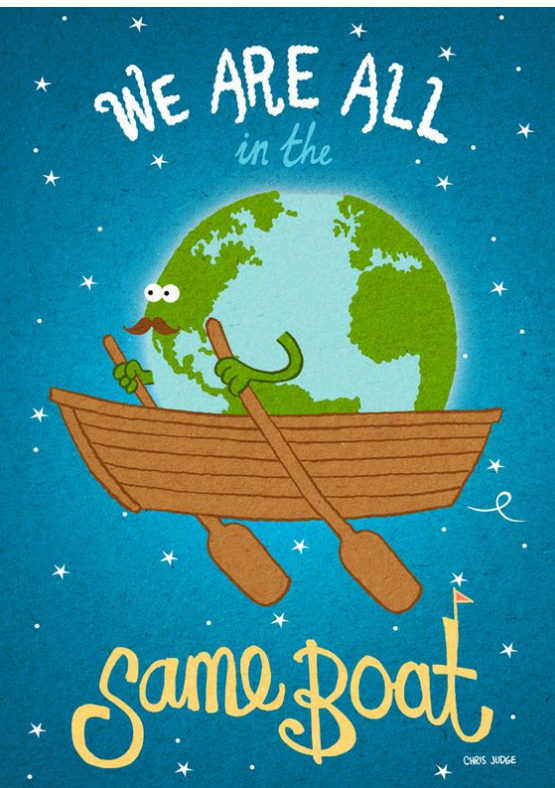
The fear of the mob

Behind the cold epistemological question —can our representation capture with some certainty stable features of the world out there?— the second, more burning anxiety is always lurking: can we find a way to keep the people off limits?

Latour 1999. “Do you believe in reality?” —news from the trenches of the Science Wars.

Pandora's Hope

2 Commitment to a singular global reality

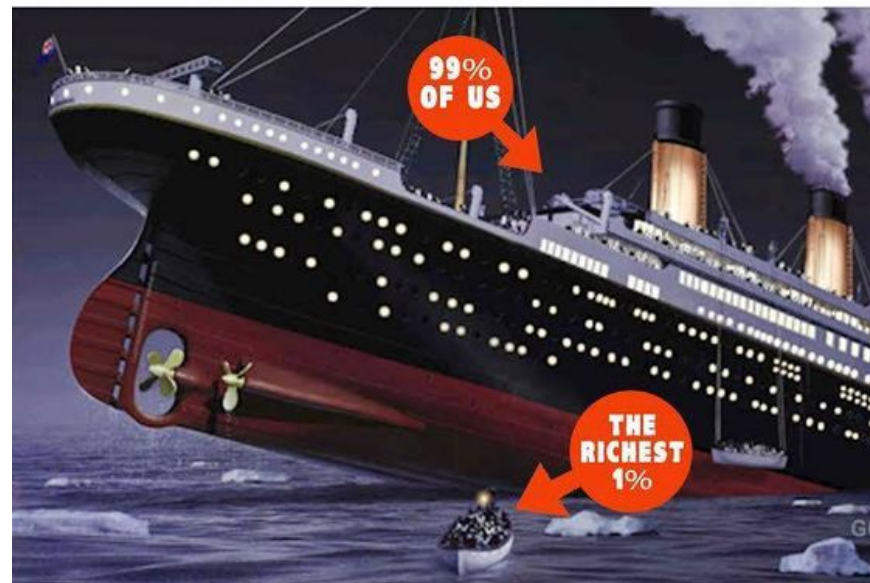


CLIMATE CHANGE DOES NOT RESPECT
NATIONAL BORDERS. WE ARE ALL IN THE
SAME BOAT; A HOLE AT ONE END WILL SINK
US ALL.

- KOFI ANNAN -

LIBQUOTES.COM

WHEN IT COMES TO CLIMATE DISASTERS



WE ARE NOT ALL IN THE SAME BOAT

3 Post-politics and science-policy lock-inns

The continued reproduction of the linear model of science society relations IPBES is not just convenient for experts, it is also demanded by policy makers and institutionalized in the rules and procedures that govern assessment processes; global environmental science and global governance are locked into a shared belief in a singular world for science to represent and assess, and for policy makers to govern

Lahsen and Turnhout under review ERL

We have to question why UN organisations “have become so involved in research rather than policy making?”

Boehmer-Christiansen, 1994, Global Environmental Change

Revisiting the contract: transforming global environmental science

- When policy offloads political responsibility on science, this creates incentives to critique science
- **Diversifying expertise**, coproducing knowledges and options, recognizing plural epistemologies and ontologies
- **Democratic norms** for global environmental science: accountability, transparency, diversity, contestation, humility
- **Questioning user needs**: do all user needs warrant research effort? Who are we and should we be empowering with research?



Decolonization

- *Any cosmopolitanism or global proposal that is constructed through ... abstract universalism ... will not be able to avoid becoming another global imperial/colonial design. If universal truth is constructed through the epistemology of a particular territory or body ... and through the exclusion of others, then the ... global proposal that is constructed ... will be inherently imperialist/colonial.*
- *if the only tradition of thought with this capacity for universality and with access to truth is the Western tradition (inferiorizing all non-Western knowledge), then there can be no abstract universalism without epistemic racism. Epistemological racism is intrinsic to a Western “abstract universalism” which conceals who speaks and from where they speak.*

Grosfoguel 2012, Transmodernity

Decolonization

“So the question is: How can we escape the dilemma between isolated provincial particularisms and abstract universalisms camouflaged as “cosmopolitan,” but equally provincial? How can we decolonize Western universalism?”

Grosfoguel

Or, how can ‘**epistemic disobedience**’ (Mignolo, 2009, Theory, Culture and Society) be incorporated in global knowledge and its transformative potential be harnessed

A collage of various colorful insects, including beetles, flies, and dragonflies, arranged around a central text box. The insects are shown in various poses and colors, including blue, green, yellow, orange, and red. Some insects have numbers next to them, such as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Thank you