



WellBeing International® Overview

*Andrew N. Rowan, D.Phil.
President, WellBeing International®
August 27, 2019*



Who We Are

- **WellBeing International is a recently established U.S. 501(c)(3) tax exempt organization that is focusing its efforts on projects that increase the wellbeing of people, animals and the environment (the PAE Triad). Currently, our core projects include a global dog campaign, a project on the impact of humane & environmental education, a campaign addressing the problem of ocean plastic, and a program promoting corridors and connectivity for wildlife.**



Linking SDGs & Animal Welfare: A Global Perspective.



Selected SDGs & Animal Welfare

- **14 – Life Below Water** (Overfished, plastic & other pollution)
- **15 – Life on Land** (Wildlife is under great threat)
- **3 – Good Health & Well-being** (Overuse of antibiotics; Zoonotic diseases)
- **12 – Responsible Consumption** (Foods of animal origin)
- **8 – Decent Work and Economic Growth** (e.g. nature tourism – 80% of tourist trips to Africa for wildlife viewing)
- **11 – Sustainable Cities & Communities** (companion animals (manage dogs in Bosnia), wildlife conflict)



SDG 14 Life below Water



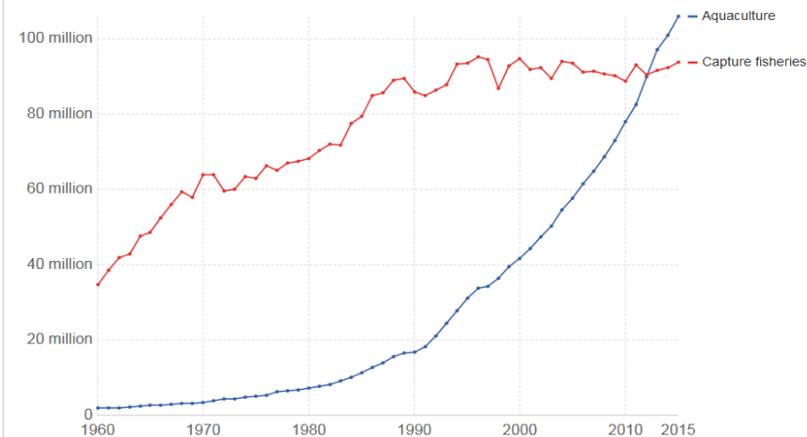


SDG 14: Life below Water - Overconsumption

- **Capture fisheries production peaked.**

Capture fisheries vs. aquaculture (farmed fish) production, World

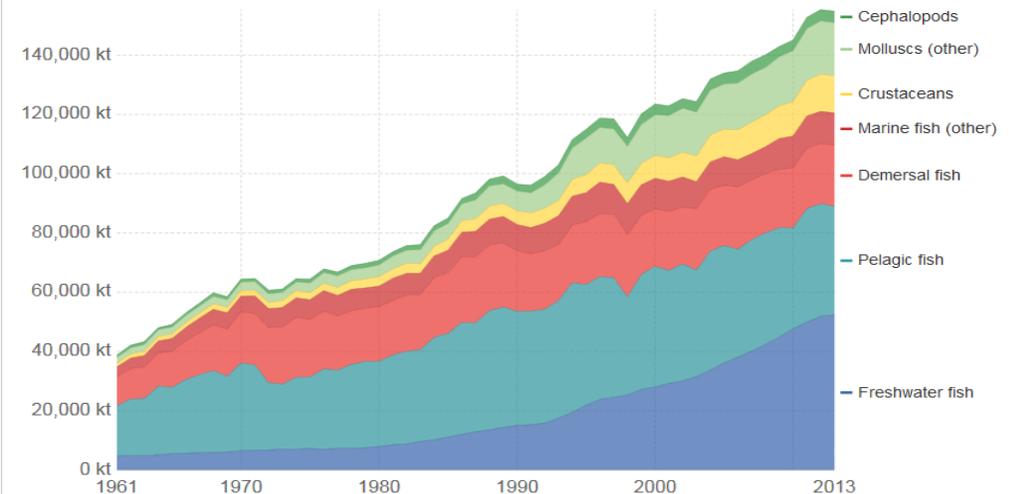
Annual production of seafood from wild-catch fisheries and aquaculture (farmed seafood) practices, measured in metric tonnes per year. Data is inclusive of all aquatic species, including aquatic animals and plants.



Source: World Bank- World Development Indicators OurWorldInData.org/meat-and-seafood-production-consumption/ • CC BY-SA

Seafood and fish production, thousand tonnes, World

Total seafood and fish production measured in thousands of tonnes (kilotonnes) per year. Seafood and fish includes both marine and freshwater species, crustaceans, cephalopods and other molluscs.



Source: UN Food and Agricultural Organization (FAO) OurWorldInData.org/meat-and-seafood-production-consumption/ • CC BY-SA

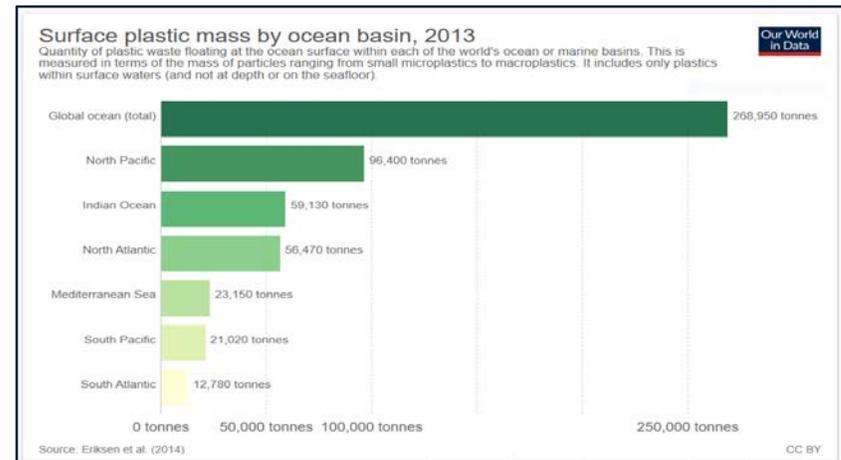
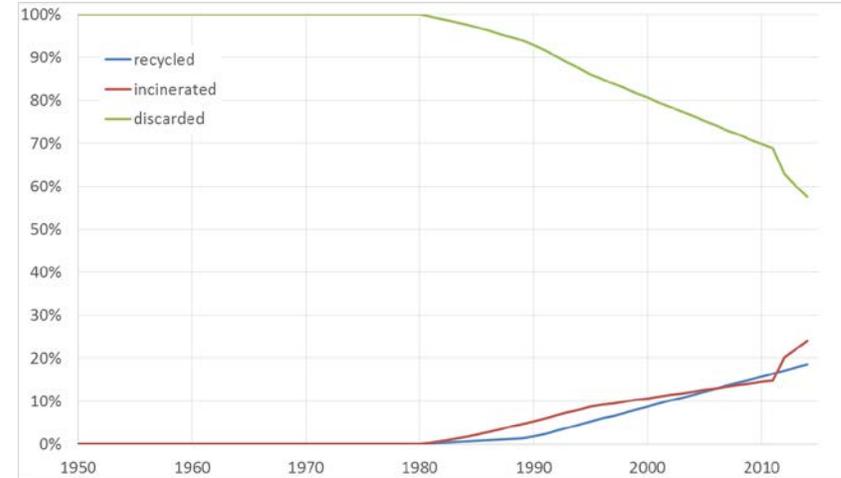
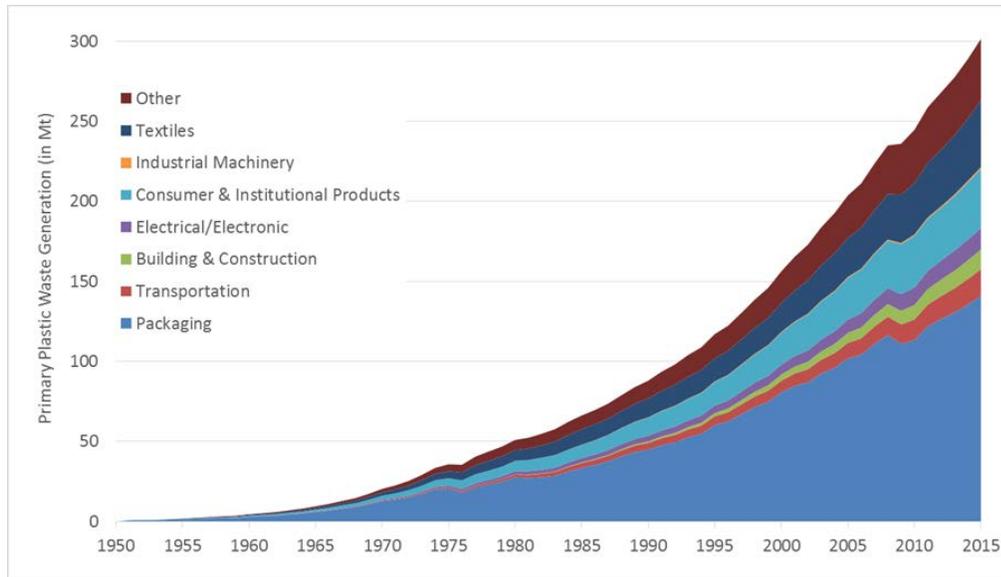
- **Aquaculture has many environmental/welfare issues.**



SDG 14: Life below Water - Pollution

- Plastic waste increasing dramatically

- More plastic being recycled but still too much ending up in oceans.



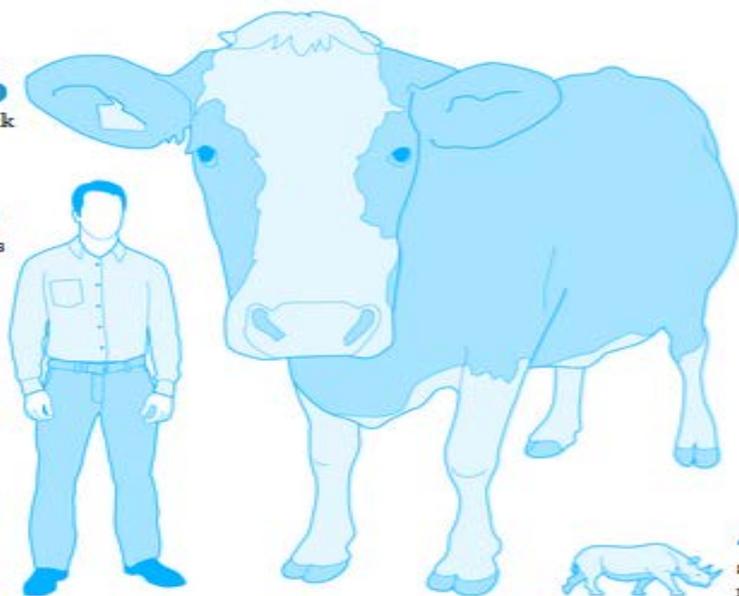
Source: Eriksen et al. (2014)

CC BY

Of all the mammals on Earth, 96% are livestock and humans, only 4% are wild mammals

60%
are livestock

36%
are humans



4%
are wild
mammals



SDG 15

Life on Land

Wildlife remarkably limited

(with thanks to Gary Tabor, VMD, MES of the Center for Large Landscape Conservation in Montana for materials on “connectivity” issues)

70%
of birds are
chickens and
other poultry



30%
are wild



SDG 15: Life on Land – Declining wildlife

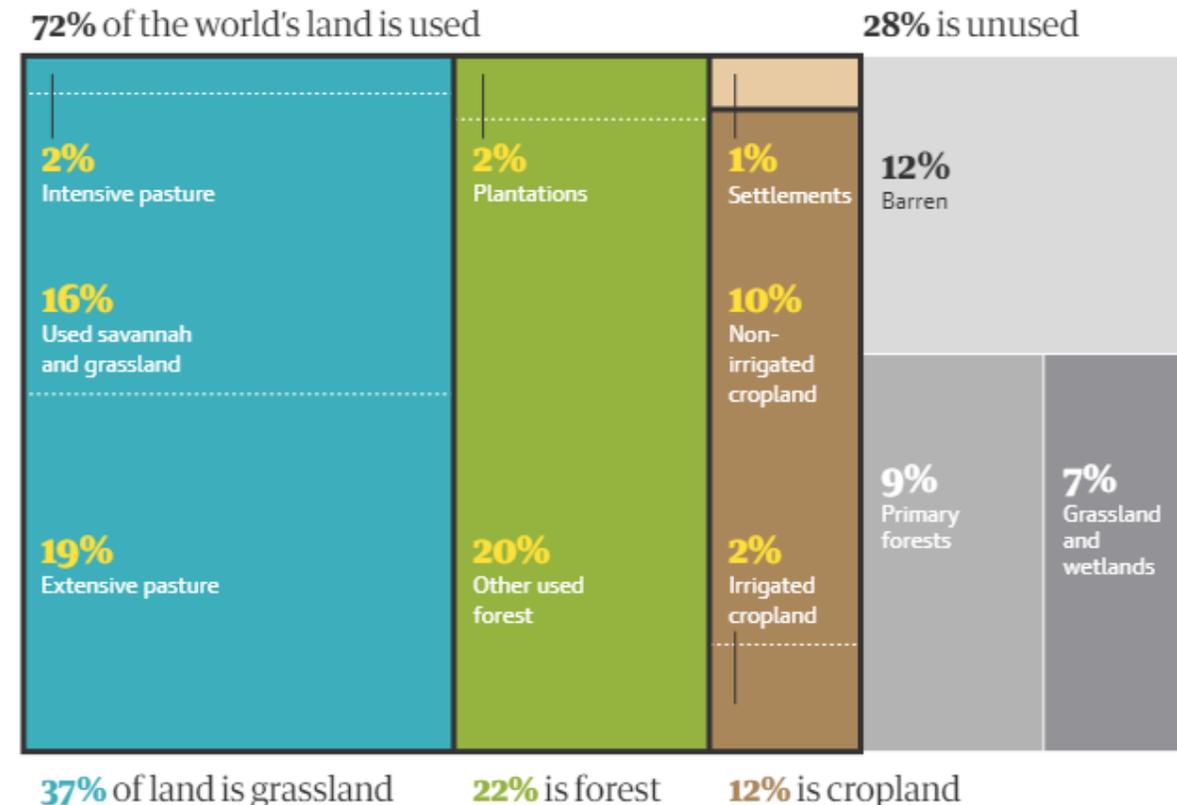
- **Living Planet Index (WWF & London Zoo) – 60% decline in 16,704 wild populations since 1970 (on top of big declines from 1900 to 1970)**
- **IPBES 2018 on land – land degradation and habitat loss continues**
- **IPCC – 72% of terrestrial area used by humans**
- **Convention on Biological Diversity – Aichi target 5 Halve the rate of loss of habitat (at least) by 2020 & reduce degradation & fragmentation**



SDG 15 – Life on Land

- IPCC Report; Aug 2019 – Must transform way world produces food & manages land.
- Not much space left for wildlife and what is available is threatened by increasing fragmentation. Must maintain/restore connections between wild lands.

Most of the planet's land is used by humans



Guardian graphic. Source: IPCC. Note: percentage of ice-free land shown

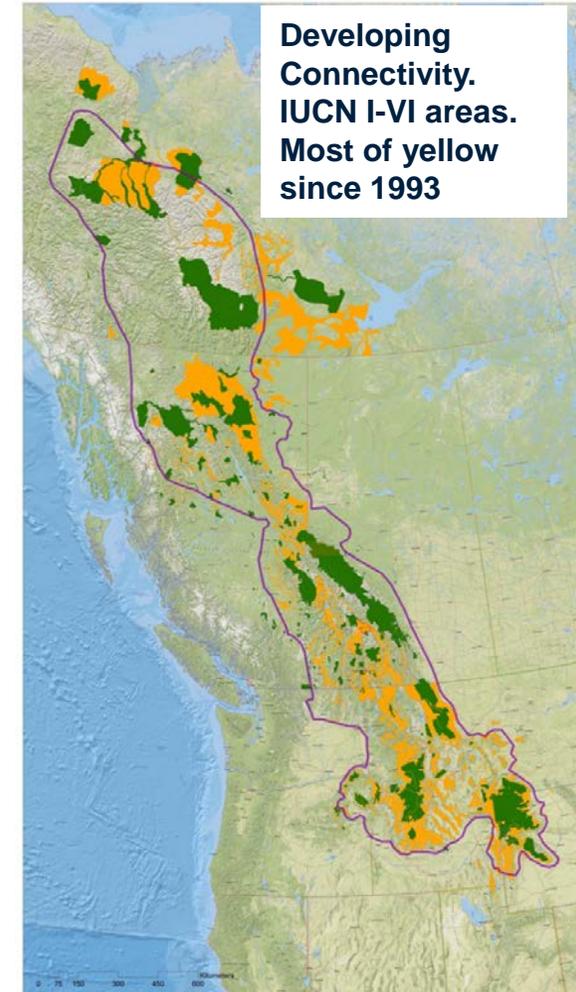
Emergence of Connectivity Conservation

- 19th Century – National Parks



- 20th Century – Ecosystem Conservation

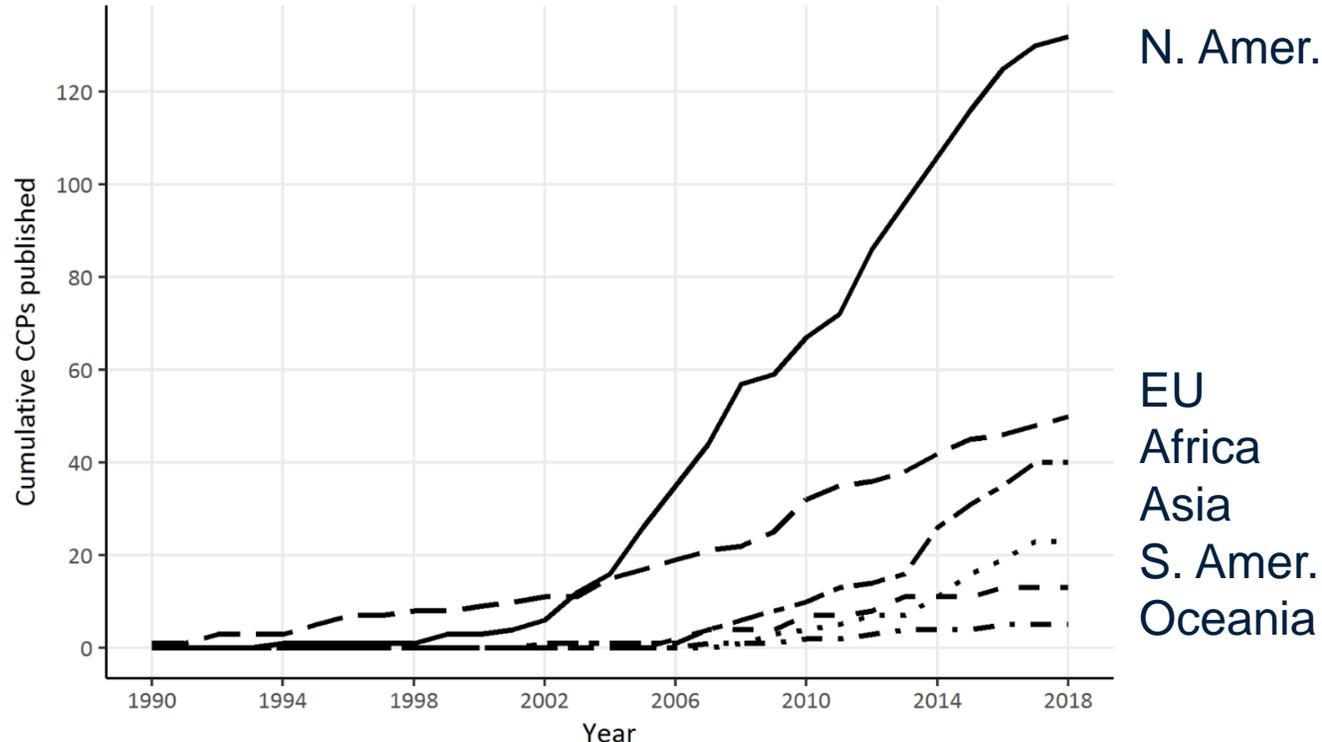
- 21st Century – Connectivity Conservation (A process – see Yukon to Yellowstone map (2013) at right.)





Countries with Laws Mandating Connectivity & Growth of CCPs

- **Republic of South Africa**
- **EU (and some EU nations)**
- **Kenya**
- **Tanzania**
- **Costa Rica**
- **Bhutan**
- **Israel**
- **Romania**
- **US states – New Mexico, California, N. Hampshire & Oregon recently passed laws**



Keeley et al. 2019;
30 years of connectivity conservation plans (CCPs)



**SDGs 3, 12,
8, 11**



SDG 3: Good Health & Well-being

- Zoonotic diseases have been and are a major contributor to human morbidity and mortality.
 - Tuberculosis, Measles, Rabies
 - Modern zoonoses like AIDS, SARS, Ebola, Hanta Virus emerging as humans and wildlife interact more closely
- Antibiotic resistance – three quarters of antibiotics produced annually are fed to animals, most in sub-therapeutic doses. Ideal way to drive resistance and modern intensive farming systems perfect incubators for potential new forms of Avian flu.



SDG 11 – Sustainable Cities & Communities

- In Bosnia, UNDP surveyed communities to find out what they needed. Were surprised that many communities complained about roaming dogs.
- Partnered with IFAW to engage four communities in a process to deal with roaming dogs. Community leaders and stakeholders convened to discuss, develop and implement viable solutions.
- The communities have resolved their dog problems and a positive side-benefit was a reduction in ethnic divisions in those communities.
- UNDP is now extending the project to two additional communities.





Concluding Comments

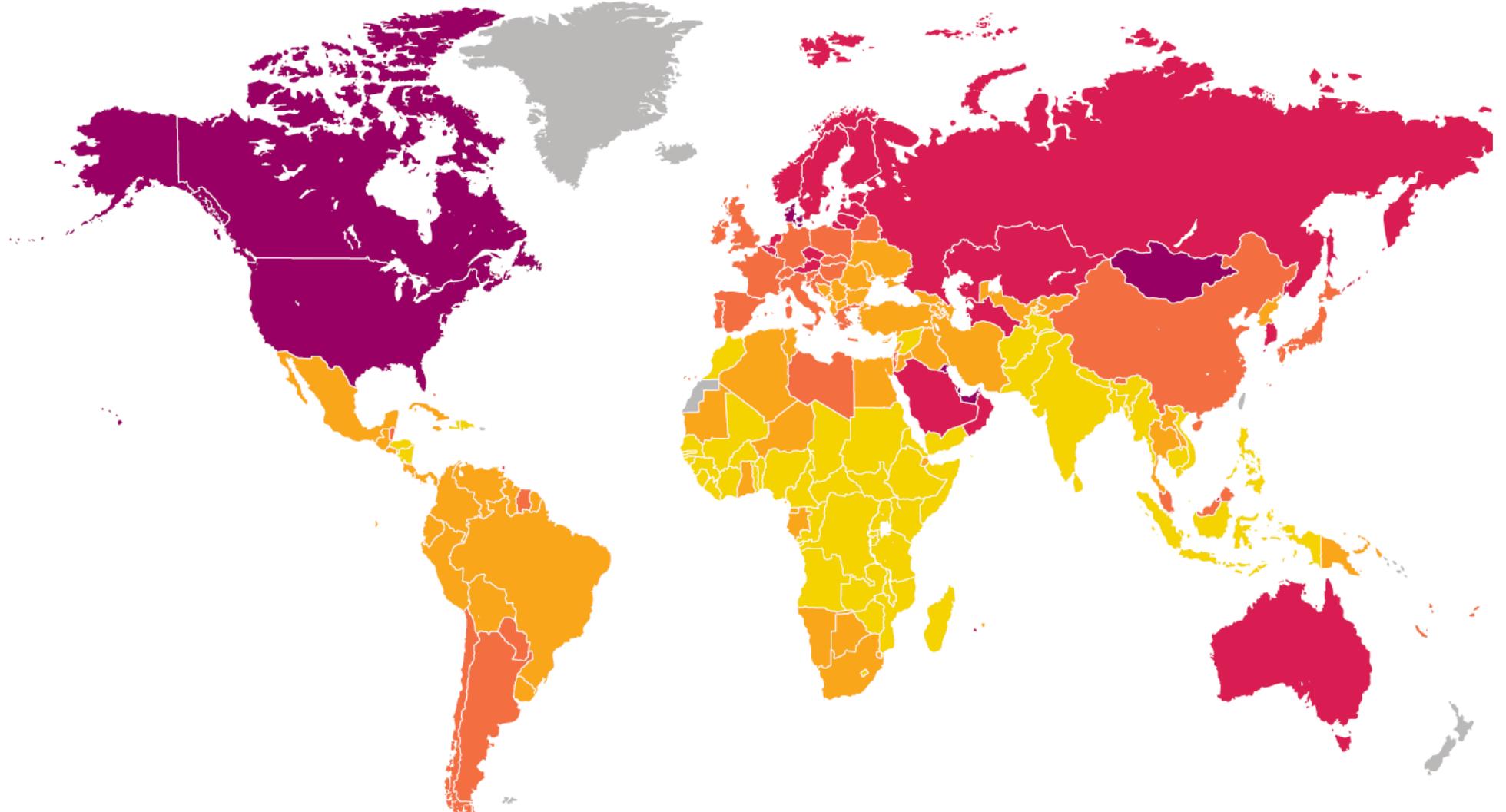


Consumption: Africa & South Asia lowest consuming regions

Figure 4: Global map of Ecological Footprint of consumption, 2014
Total Ecological Footprint is a function of both total population and rates of consumption. A country's consumption includes the Ecological Footprint it produces, plus imports from other countries, minus exports¹².

Key

- < 1.75 gha
- 1.75 - 3.5 gha
- 3.5 - 5.25 gha
- 5.25 - 7 gha
- > 7 gha
- Insufficient data





Population Growth

- Low variant assumes **minimal** number of unplanned pregnancies.
- Not “pie-in-the-sky.” Rwanda’s fertility rate dropped 25% in 5(!) years following introduction of family planning initiatives.
- People, animals & environment **all benefit** from a reduction in the human footprint.

