

Connecting the dots from climate to COVID

(Presented by Erica M. Ferrer, UCSD-SIO)



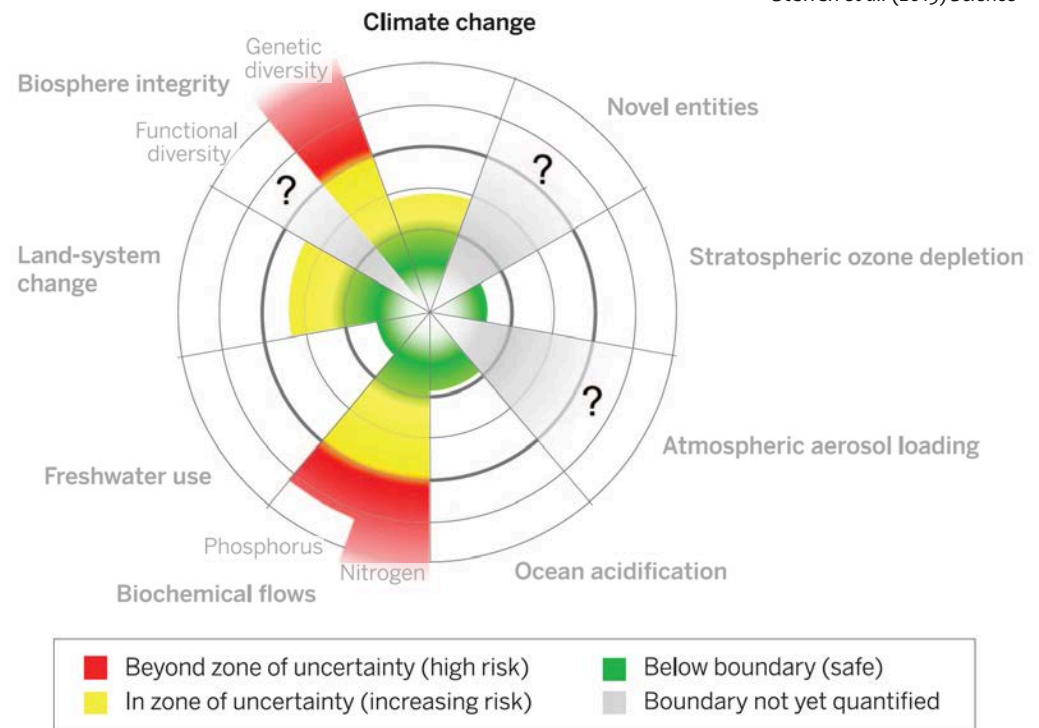
Blue Marble, Eastern Hemisphere; NASA
First picture taken in 1972

Earth's 9 planetary bounds:

First formally published by Rockström *et al.* (2009) in *Nature*



Steffen *et al.* (2015) *Science*

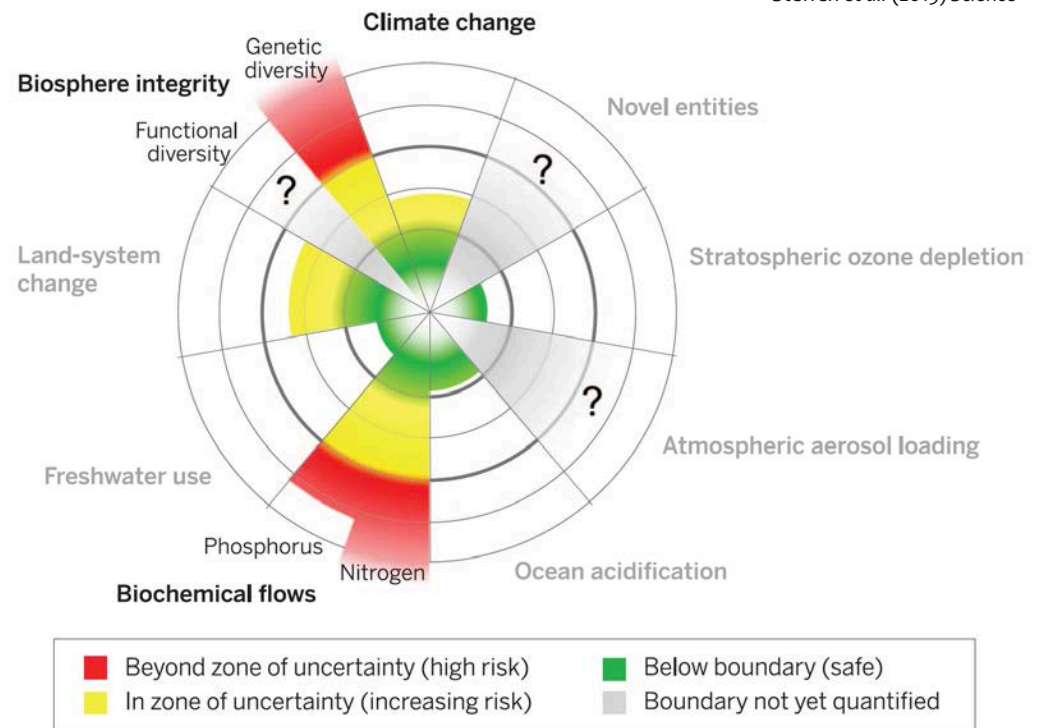


Earth's 9 planetary bounds:

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Climate Change Emergency:

At a glance

To describe this as an emergency is not hyperbole.

- To achieve the Paris Agreement, which stipulates a 2°C warming above pre-Industrial average, governments must strive to meet their current NDCs (Nationally Determined Contributions) pledged under the Paris Agreement, *and some*.
- **Business as usual projections suggest that, at least pre-COVID, we are headed for ~4°C warming by 2100.**
- **Disproportionate effects** on future generations, the world's poorest people, as well as Black, Indigenous and Communities of Color...
- Earth's flora and fauna-- who cannot speak to us with words but communicate to us in so many other ways are truly suffering.

Sources: IPCC AR 5, 2014; IPCC Special Report, 2018; IPCC SROCC, 2019

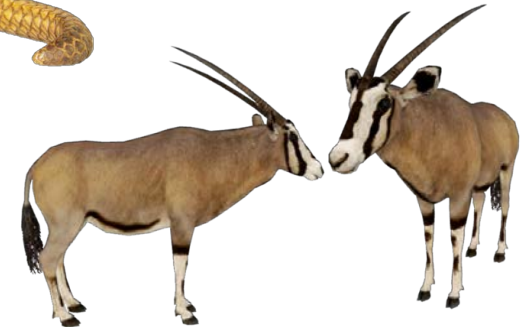




Biodiversity Crisis

Now entering Earth's "6th mass extinction"?

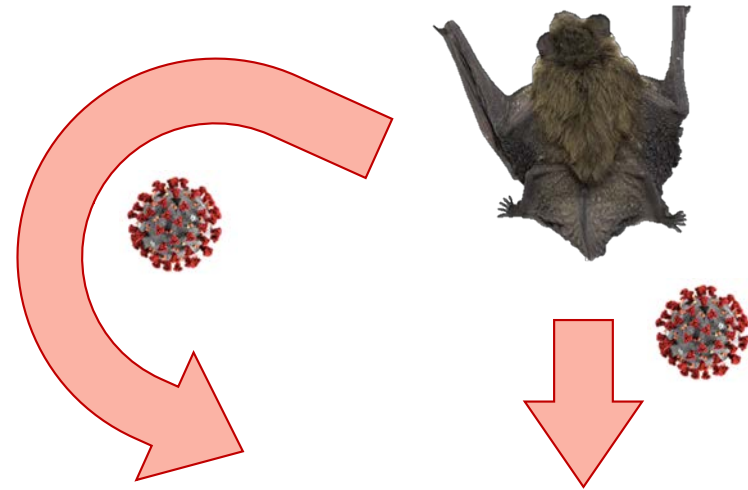
Further reading on this topic: Ceballos et al., 2015; Ceballos et al., 2017; Payne et al., 2016; Briggs, 2017; IPBES Report, 2019 (forthcoming)



Missing link? (illegal capture + distribution)

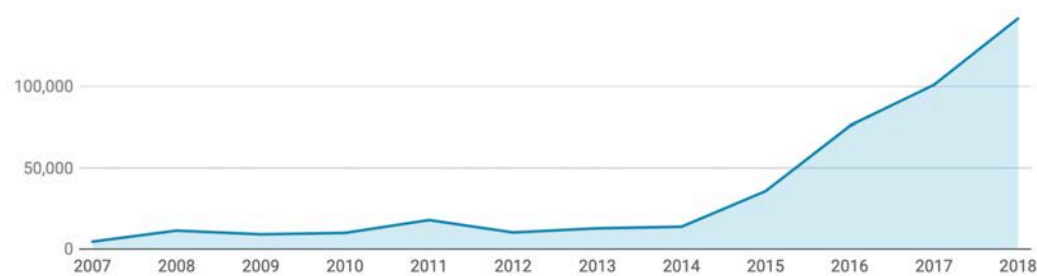


See Cyranoski, 2020 (*Nature*)



Number of Whole Pangolin Equivalents Seized Annually

There has been a sustained increase in pangolin seizures since 2014, according to data from World WISE. In 2017 alone, there were more whole pangolin equivalents seized than in 2007-2014 combined.



Note: 2018 data collection was not yet complete as of April 2020
Source: World WISE • Created with Datawrapper



A human health emergency

- This global health emergency has laid bare many of the socioeconomic disparities that exist between nations
- These inequities contribute to the tragedy of COVID-19, which contributes to the unequal effects of climate change.
- We've witnessed the disparate effects of COVID-19 on communities faced with outbreaks. We've seen how lack of preparedness and poor leadership can exacerbate the crisis.
- Many more people can now appreciate the importance of working together as a global community when faced with an existential crisis...
- But... just like with climate change, some do not.



Related reading: Ervin, 2020; Lorentzen et al., 2020; Quamenn, 2020

Changing Geopolitics & the Struggle for International Cooperation

I contend that...

- We cannot let Interactionalism fail at the hands of Protectionism and Xenophobia. The stakes are too high.
- If we are to abate phenomena such as climate change and loss of biodiversity, we need to be able to work together and to draft coherent policy across borders.

[Photo from Climate March in Madrid, Dec. 2019 >](#)

Related reading: Thanki, 2019



The UN climate talks ended in deadlock. Is this really the best the world can manage?

Aruna Chandrasekhar

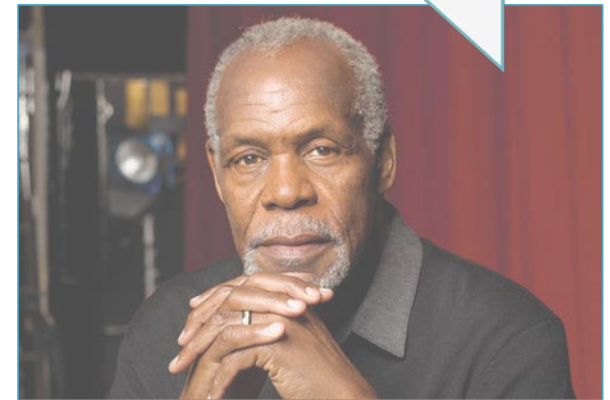


The Need for Socially-Just Environmentalism

- In the same way that we cannot ignore the intersections of natural resources and environmentalism, we cannot ignore the intersections of environmentalism and social justice.
- The struggle for socially-just environmentalism is rooted in a dark history of colonial, classist, and racialized oppression that is inextricably linked to the cultivation, conquest, and control of natural resources.

Related reading: Fofak, 2019; Newkirk, 2018, Cai, 2019

“If we talk about the environment, for example, we have to talk about environmental racism - about the fact that kids in South Central Los Angeles have a third of the lung capacity of kids in Santa Monica.”



Danny Glover (Actor, Producer, UNICEF Goodwill Ambassador)

The Need for Socially-Just Environmentalism

“4 reasons coronavirus is hitting black communities so hard”

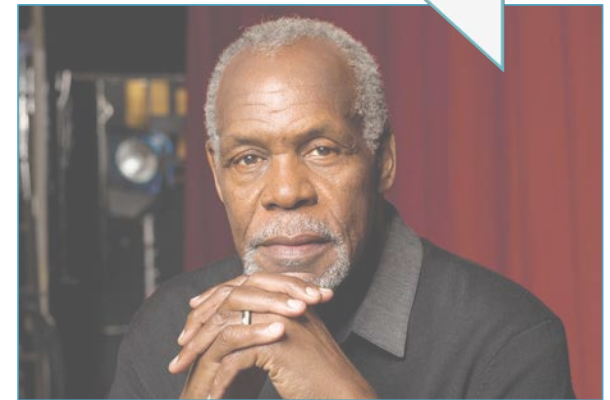
– April 10th, *The Washington Post*

“Latinos now twice as likely as whites to get coronavirus in L.A. County”

– July 10th, *The Los Angeles Times*

Related reading: Fofak, 2019; Newkirk, 2018, Cai, 2019

“If we talk about the environment, for example, we have to talk about environmental racism - about the fact that kids in South Central Los Angeles have a third of the lung capacity of kids in Santa Monica.”



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The Trillion(s) Dollar Question: *How?*

- **Science** (data): to understand where we're headed
- The realization and **will to change**
- **Rules, laws, and precedent** *based on science*
- **Infrastructure and funding**: to uphold them
- The will to **hold people accountable**
- A **redistribution of social and economic power** to those most affected (i.e., support “equity, diversity, and inclusion”)

- For all to do, but in particular KIDS: **TALK ABOUT CLIMATE CHANGE!**
(Evidence shows that people are not talking about this issue but that kids change minds.)



References & Related Reading:

Rockström et al. (2009) in *Nature*
Steffen et al. (2015) in *Science*

IPCC AR 5 (2014)
IPCC Special Report (2018)
IPCC SROCC (2019)

Ceballos et al. (2015) in *Scientific Advances*
Ceballos et al. (2017) in *PNAS*
Payne et al. (2016) in *Science*
Briggs (2017) in *Biological Journal of the Linnaean Society*
IPBES Report (2019)

Cyranoski (2020) in *Nature*

Ervin, J. (2020) in the *United Nations Development Program*
Lorentzen et al. (2020) in *Danish Medical Journal*
Quammen (2020) in *The New York Times*

Thanki (2019) in *The Ecologist*

Fofack (2019) in *Brookings Institute*
Newkirk (2018) in *The Atlantic*
Cai (2019) in *The Duke Chronicle*



Fin

Many thanks to the members of my academic family who have helped me to understand the topics discussed here.



For more information on these ideas and/or articles, please feel free to contact me at:
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