Navigating a world of complexity: delivering sustainability

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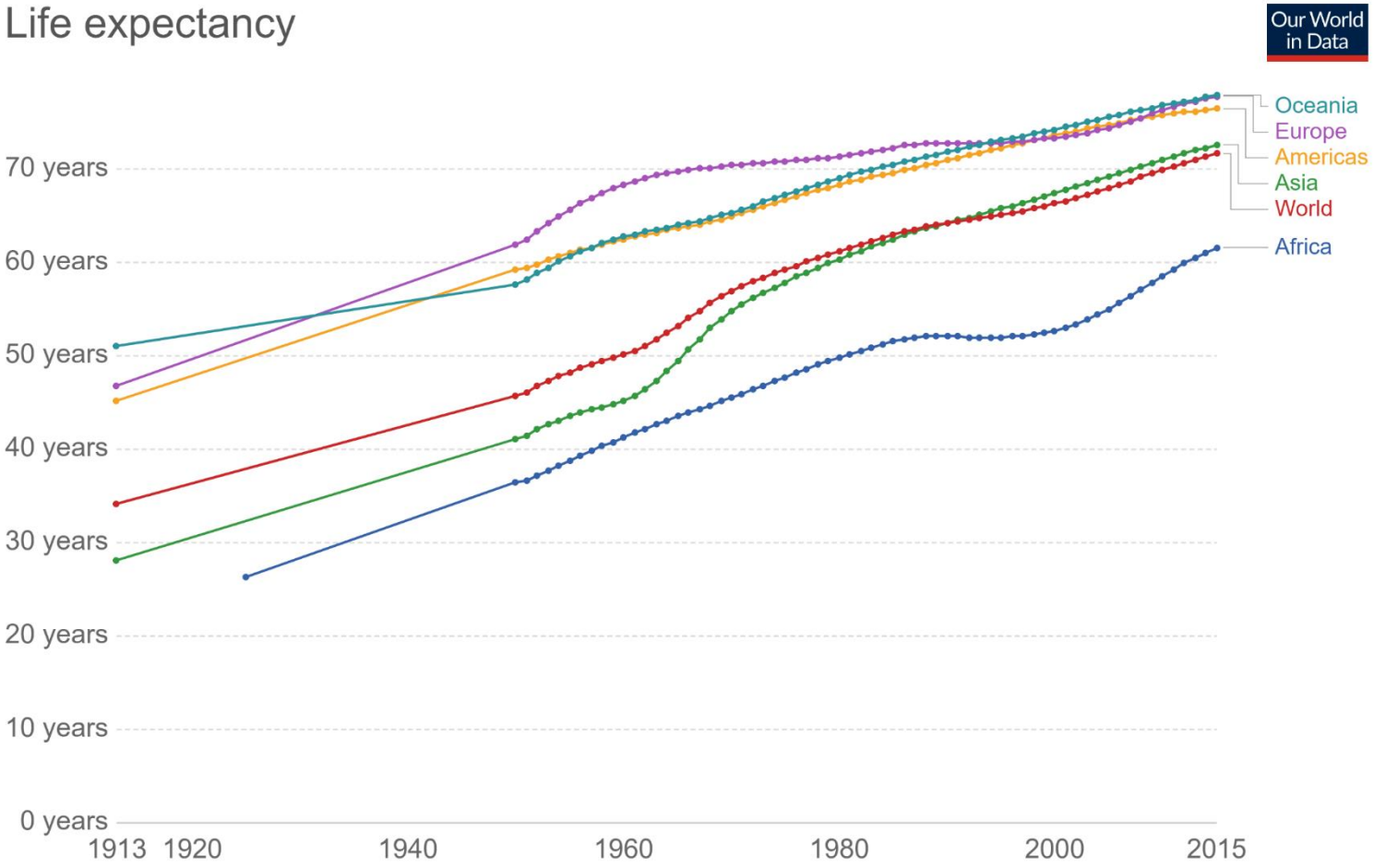
Outline

- Growth and Sustainability
- Who pays for trade-offs?
- Future-proofing decisions

- Trade-offs are inevitable, let’s make them strategic

Life expectancy



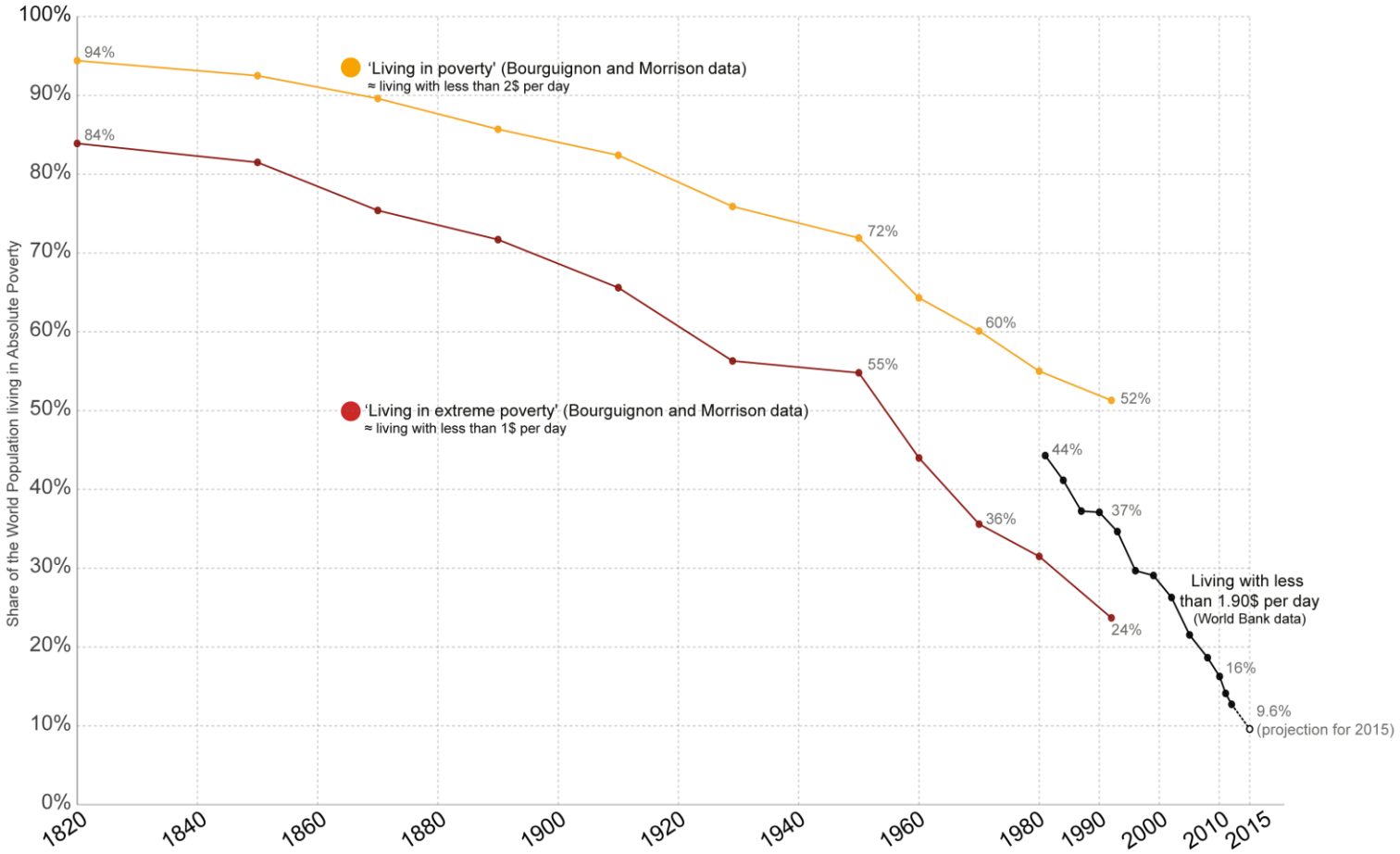
Source: Riley (2005), Clio Infra (2015), and UN Population Division (2019)

OurWorldInData.org/life-expectancy • CC BY

Note: Shown is period life expectancy at birth, the average number of years a newborn would live if the pattern of mortality in the given year were to stay the same throughout its life.

Share of the World Population living in Absolute Poverty, 1820-2015

All data are adjusted for inflation over time and for price differences between countries (PPP adjustment).



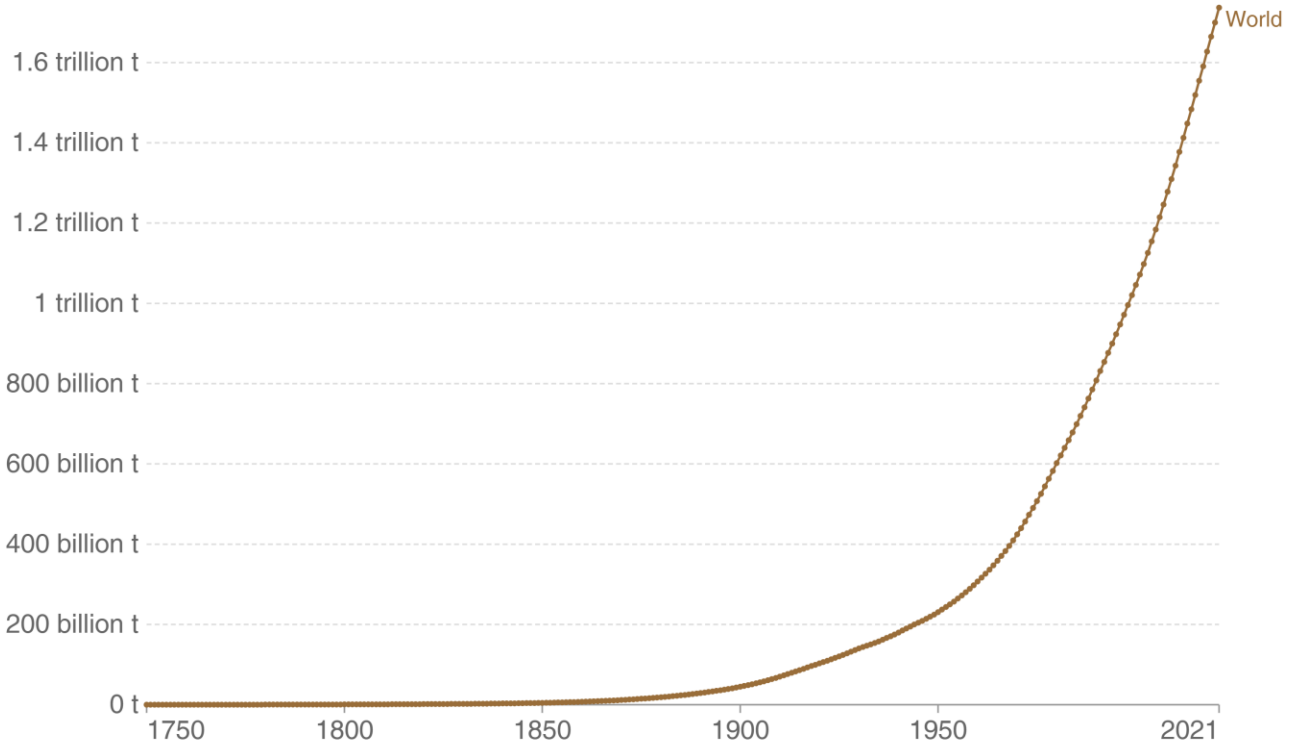
Data sources: 1820-1992 Bourguignon and Morrison (2002) - Inequality among World Citizens, In The American Economic Review; 1981-2015 World Bank (PovcalNet)

The interactive data visualisation is available at OurWorldinData.org. There you find the raw data and more visualisations on this topic.

Cumulative CO_2 emissions

Cumulative emissions are the running sum of CO_2 emissions produced from fossil fuels and industry[1] since 1750. Land use change is not included.

Our World in Data

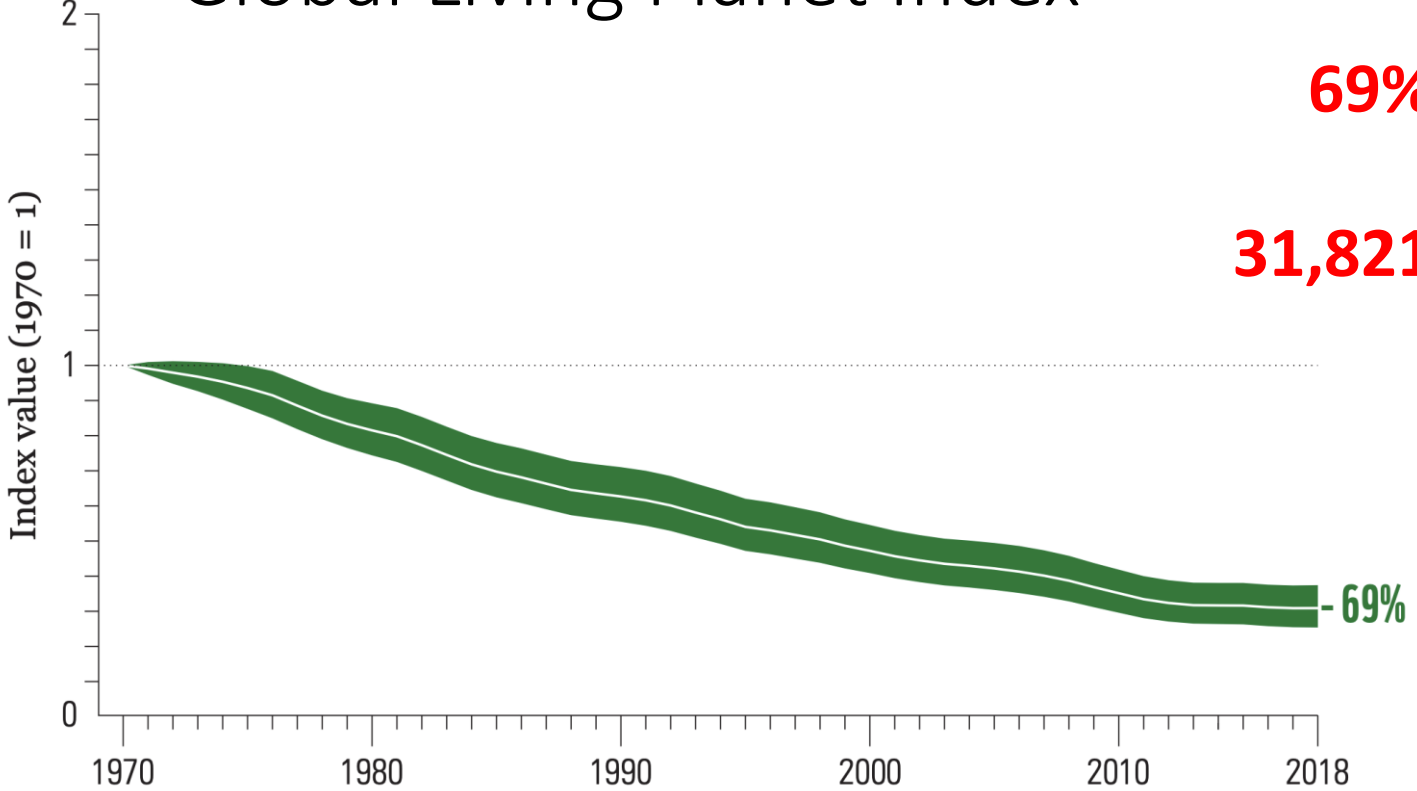


Source: Global Carbon Budget (2022)

OurWorldInData.org/co2-and-greenhouse-gas-emissions • CC BY

1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO_2) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO_2 includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

Global Living Planet Index



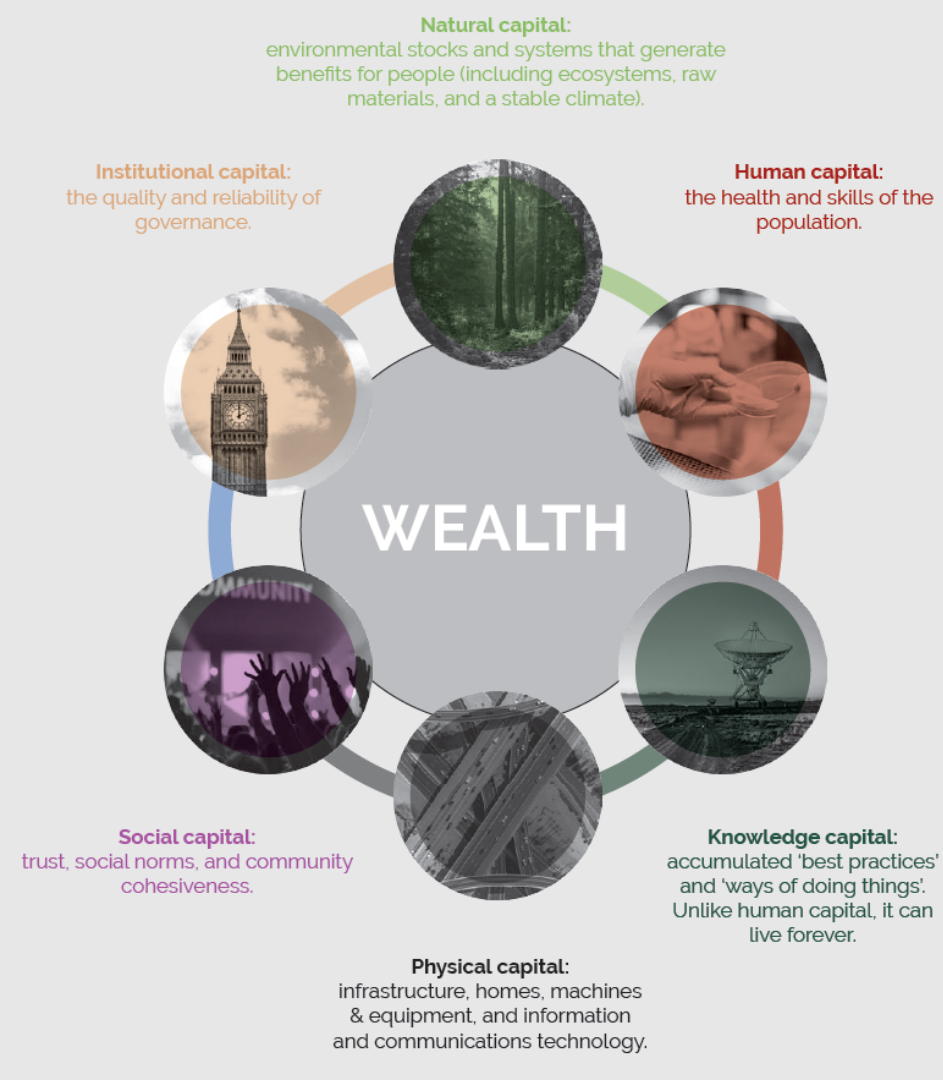
69% reduction in wildlife populations since 1970

31,821 wildlife populations examined

Source: WWF/ZSL (2022) Living Planet Report 2022. (See Figure 3)

Measure what matters

- GDP focuses on the size of the pie
- Wealth highlights the core ingredients of economic welfare



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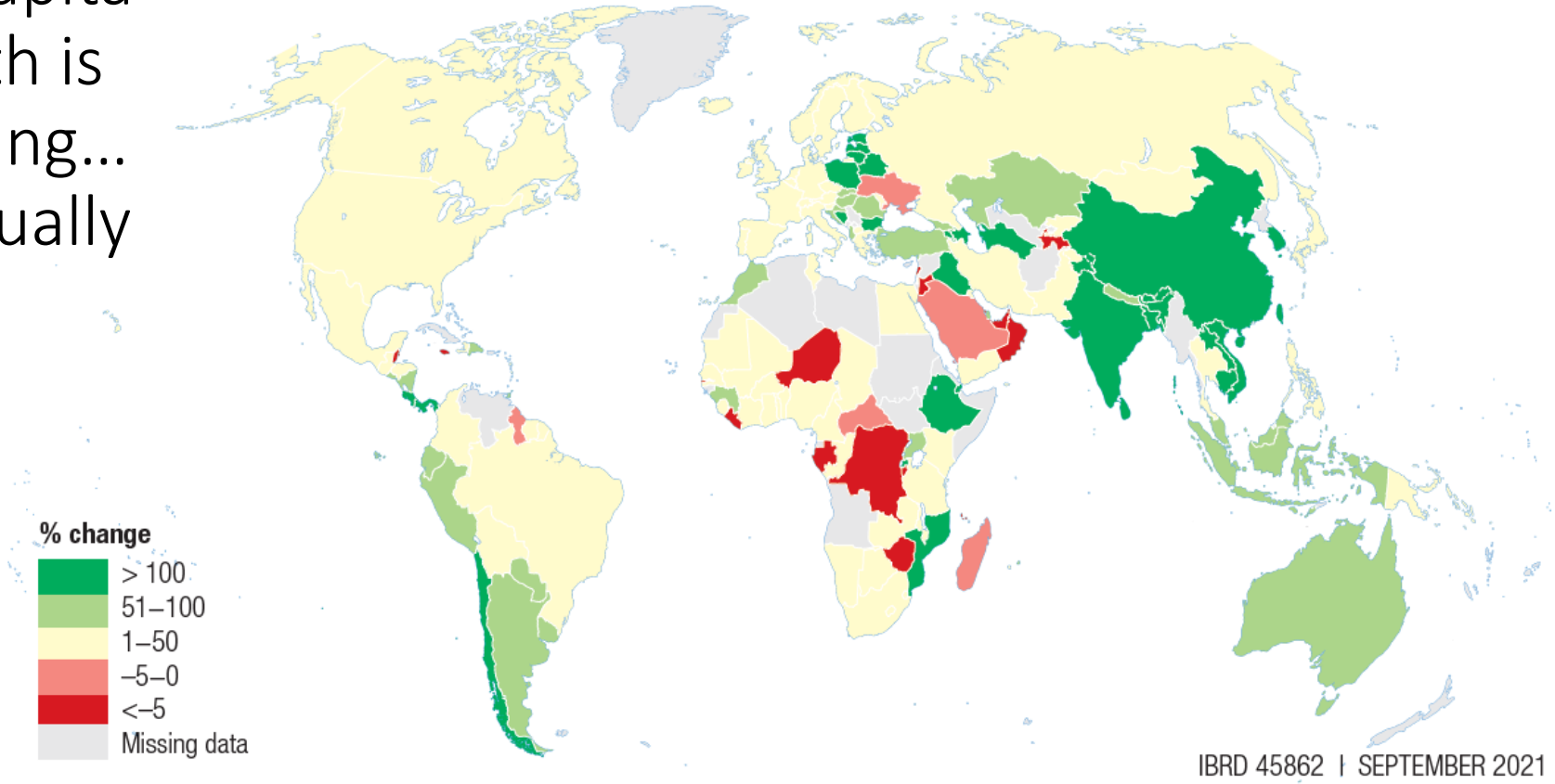
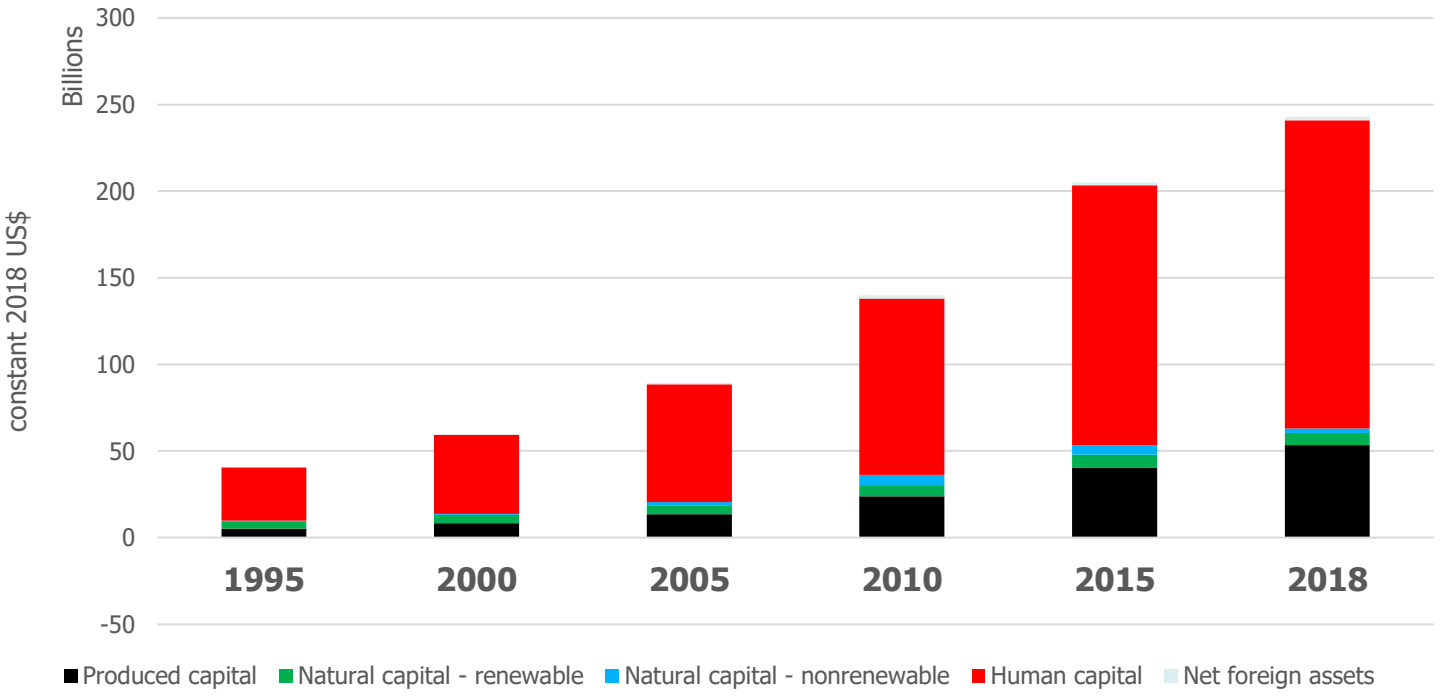
Per capita wealth is growing… unequally

% change in per capita wealth by country (1996 – 2018)



Source: World Bank.

Wealth in China



The Upshot?

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Nature generates hidden, but genuine economic value.
The longer we ignore it, the poorer we will be.

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Who pays, and how?

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Somebody
always
pays

If somebody always pays, policy let's us decide ***who***

Polluter pays	• Carbon tax, fines for oil spills, or farm pollution
Beneficiary pays	• Public money for public goods, raised through general taxation
Greatest net benefit	• Best return on investment

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The past is a poor predictor of the future

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Transitions can be fast: but this one much faster

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New York 1900

New York 1913

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Rapid transitions

Finance & economics | Free exchange

Sun, wind and drain

Wind and solar power are even more expensive than is commonly thought

Jul 29th 2014

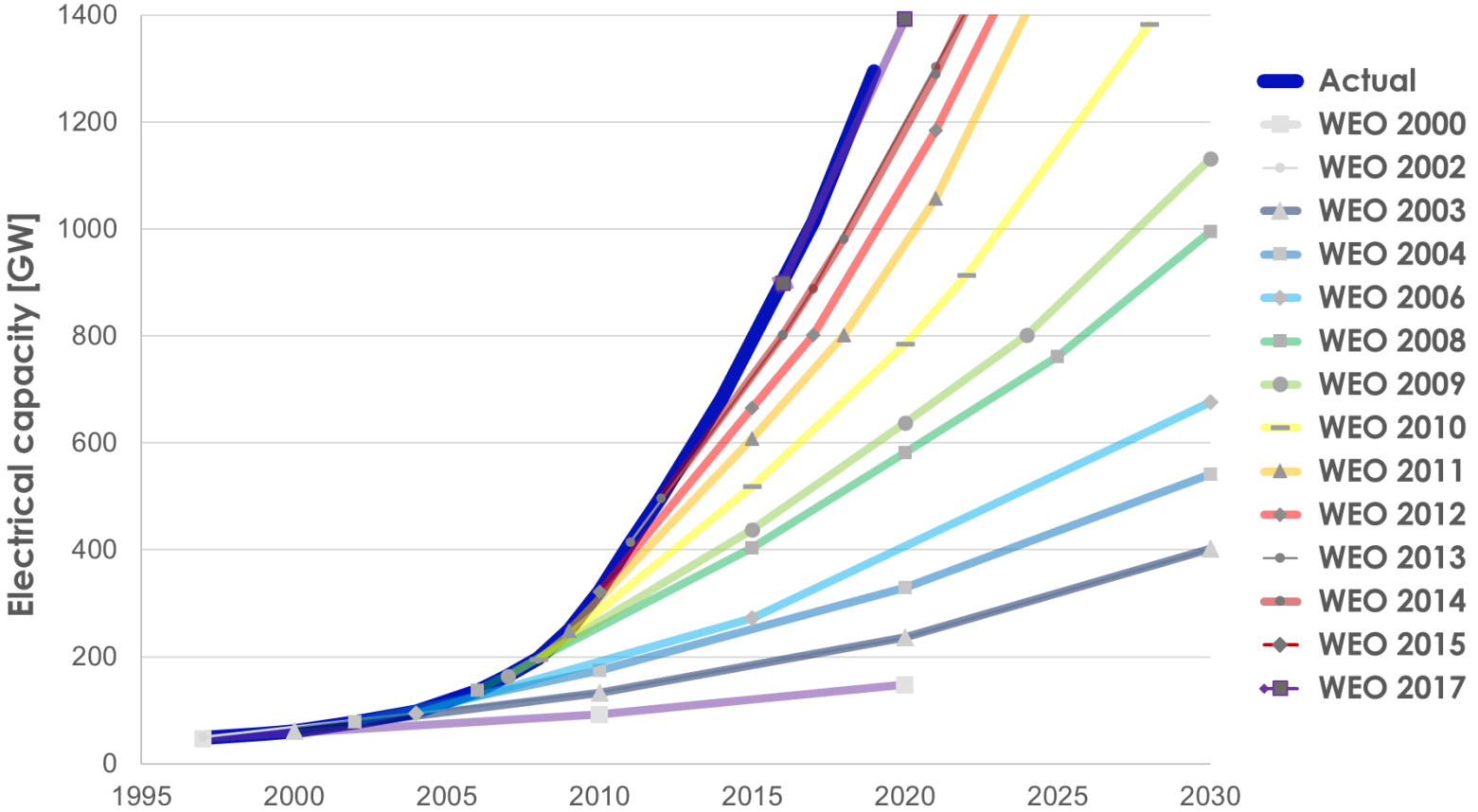
Economist 2014, Solar PV

“the most expensive way to reduce carbon emissions”

IEA 2020

“the cheapest electricity in history”

New renewable capacity, ex-hydro power



Source: Energy Watch Group, IEA

Capital is forward looking.

Thank you

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