



The social benefits of agricultural research

The Crawford Fund Conference on Food Security

Dr Jenny Gordon

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Agricultural R&D enables social change

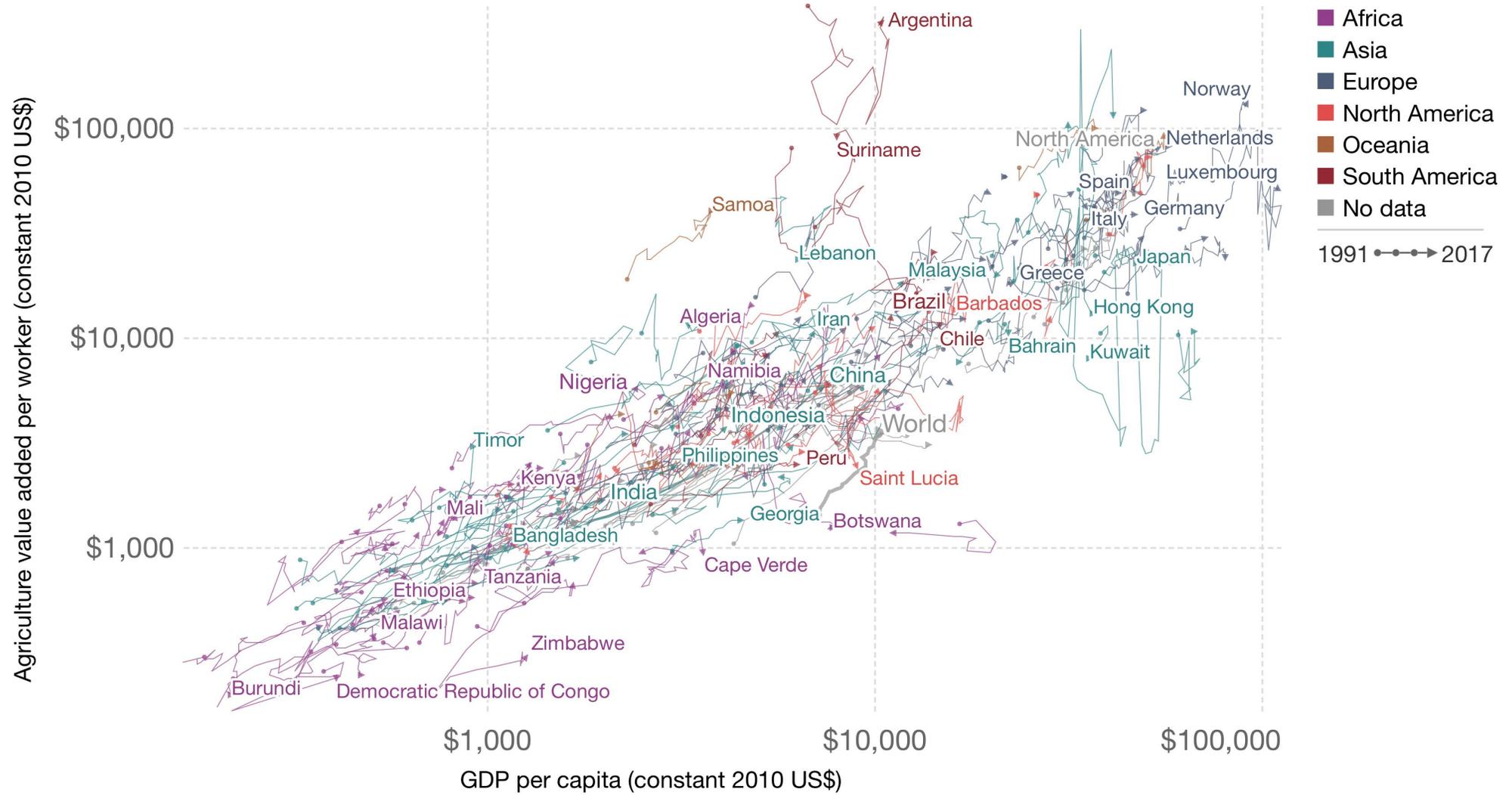
- Raises agricultural productivity and hence rural incomes
- Releases labour to be available for industrialization
- Promotes urbanization, essential to support growing populations
- Reduces food insecurity (although this has many causes) and so lowers civil unrest

Increasingly:

- Finds ways to better protect the environment
- Values and raises the profile of Indigenous knowledge
- Supports greater gender and minority equity

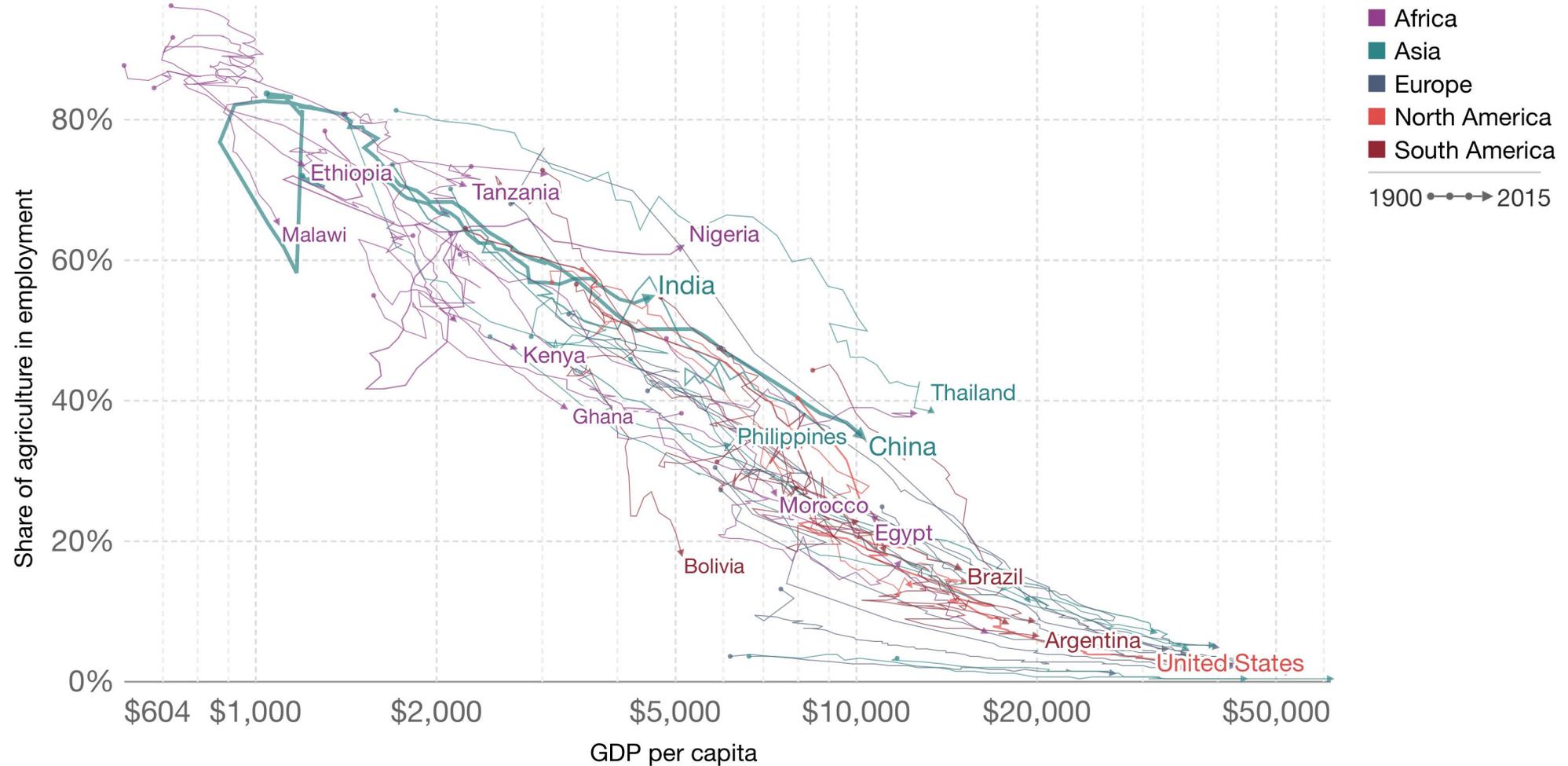
Agriculture value added per worker vs. GDP per capita, 1991 to 2017

Agriculture value added per worker versus gross domestic product (GDP) per capita, both measured in constant 2010 US\$. Agriculture value added per worker is a measure of agricultural productivity. It corresponds to the ratio between value added in agriculture (constant 2010 US\$) and number of people employed in agriculture.



GDP per head vs share of agriculture in employment, 1900 to 2015

The vertical axis shows historical estimates of the employment share in the agriculture sector. The horizontal axis shows GDP per head after adjusting for inflation and price differences across countries (figures are in 2011 international-\$).



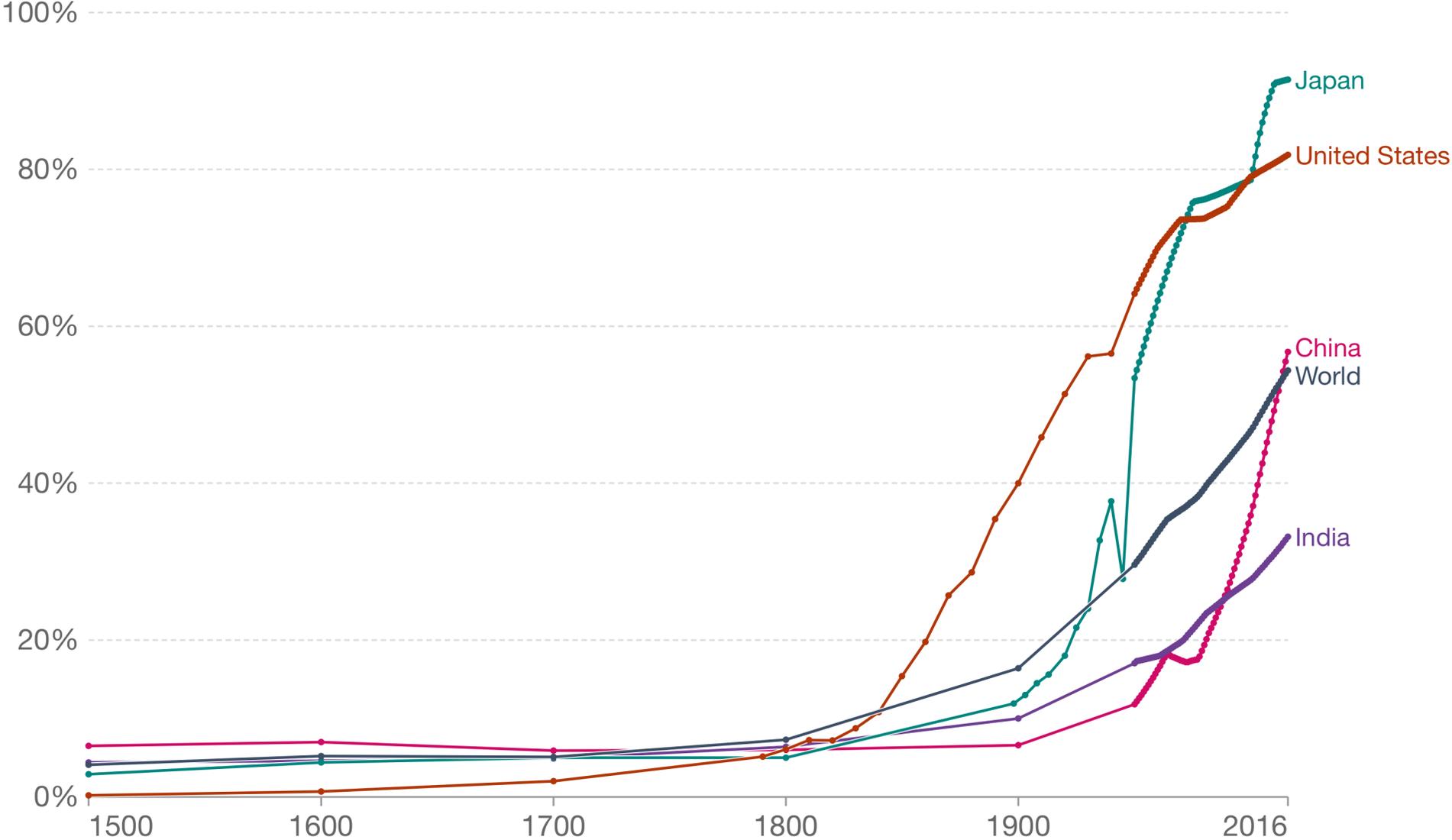
Source: Our World In Data based on Herrendorf et al. (2014) and GGDC-10 (2015), Maddison Project Database 2020 (Bolt and van Zanden, 2020)

OurWorldInData.org/employment-in-agriculture • CC BY



Urbanization over the past 500 years, 1500 to 2016

Share of the total population living in urban areas.

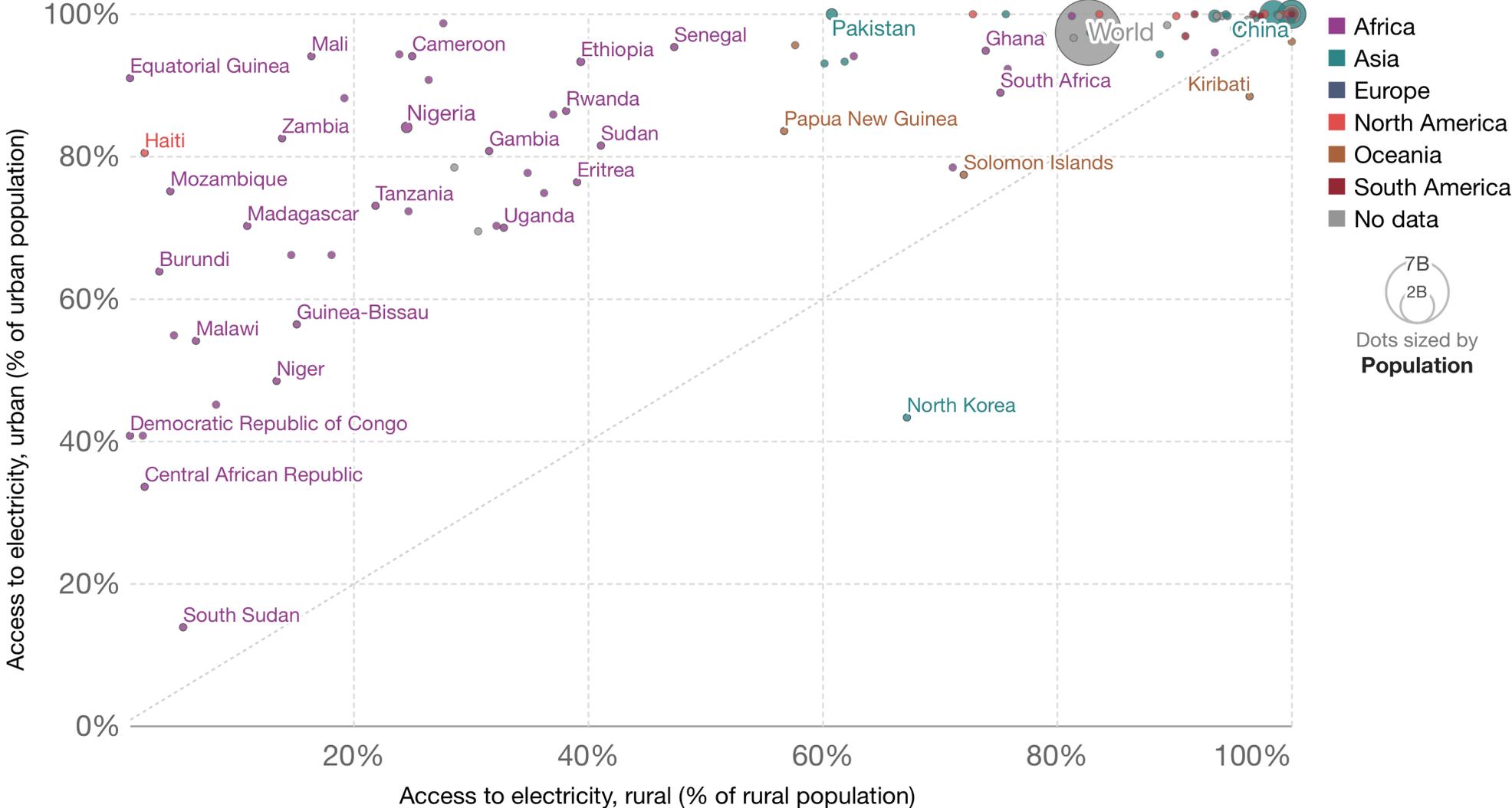


Source: OWID based on UN World Urbanization Prospects 2018 and historical sources (see Sources)OurWorldInData.org/urbanization • CC BY
Note: Urban areas are based on national definitions and may vary by country.



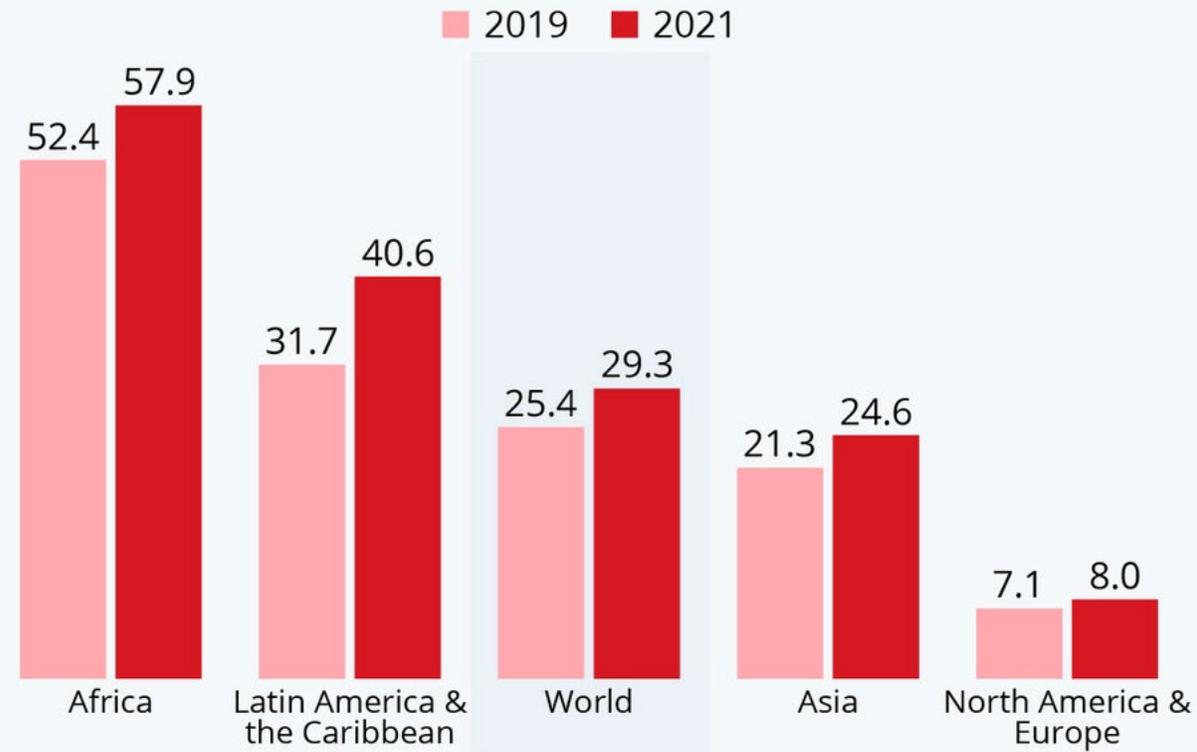
Access to electricity, urban vs. rural, 2020

The definition used in international statistics adopts a very low cutoff for what it means to 'have access to electricity'. It is defined as having an electricity source that can provide very basic lighting, and charge a phone or power a radio for 4 hours per day.



Covid Exacerbates World Hunger

Share of population experiencing moderate/severe food insecurity, by region (in percent)

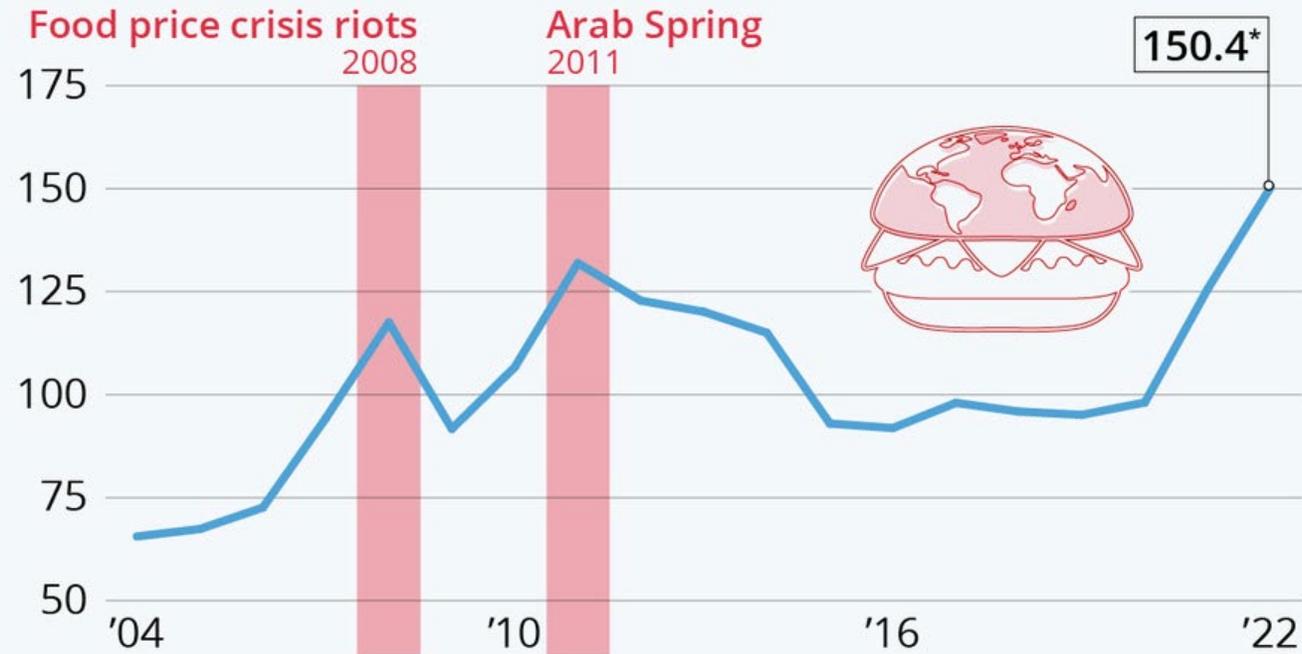


Source: FAO | The State of Food Security and Nutrition in the World 2022



The Link Between Soaring Food Prices and Political Instability

Development of the FAO World Food Price Index and occurrence of widespread unrest since 2004



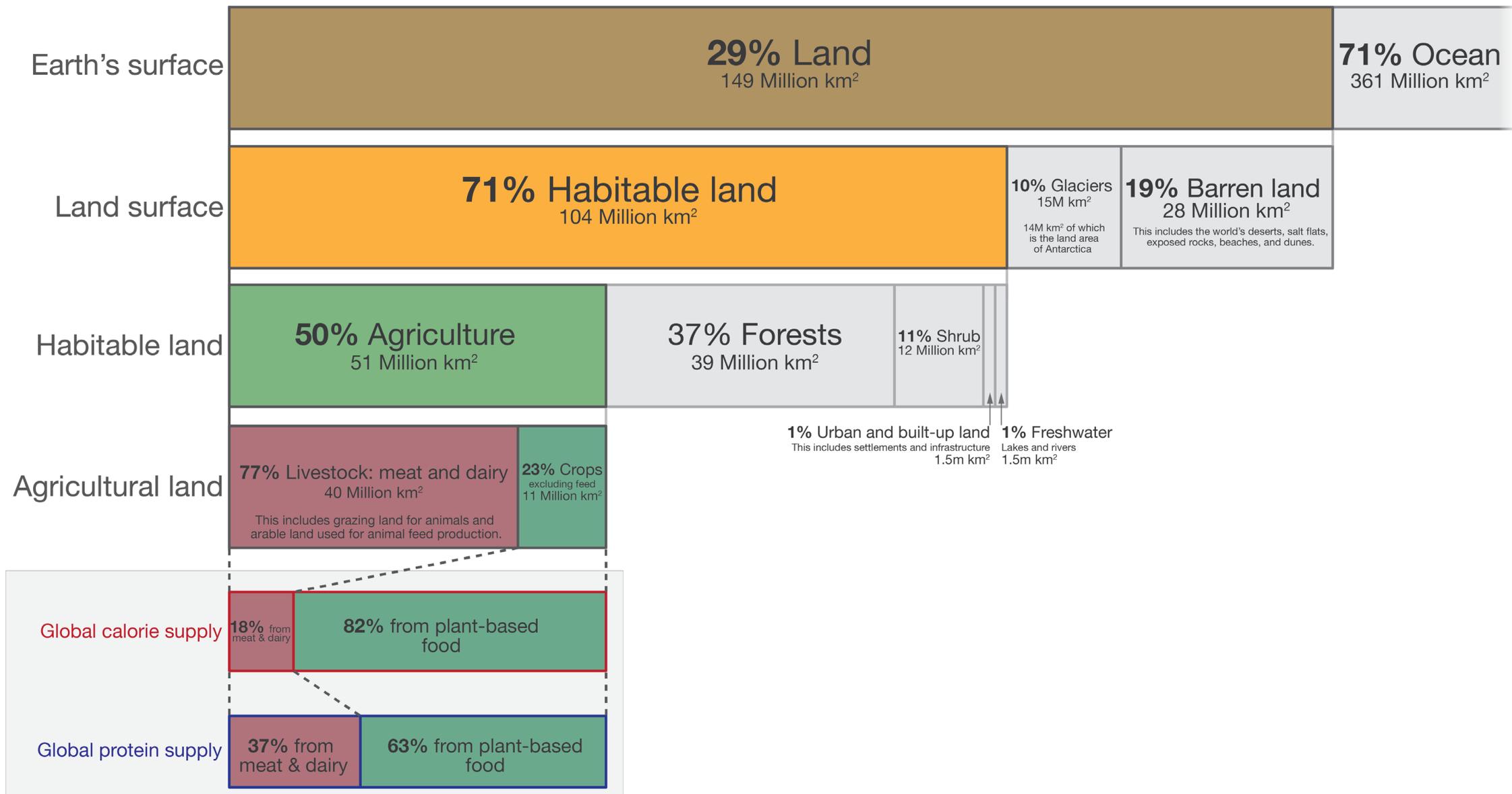
100 = average price 2014-2016

* Jan-May 2022

Source: FAO



Global land use for food production



Data source: UN Food and Agriculture Organization (FAO)

OurWorldinData.org - Research and data to make progress against the world's largest problems.

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