How Does the World Bank Tell Stories with Data

We do data from farm to table

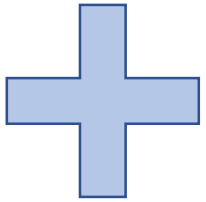
d Bank's regional aggregation | Choose countries/aggregates | Estir

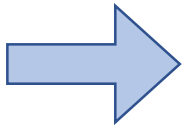
using 2011 PPP and $1.9/day poverty

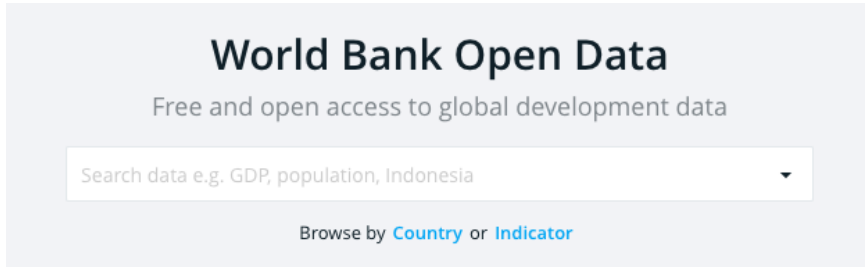
ame regional groupings of countries as in past work. The estimates are lined-up in
ee the background paper on how this is done).

Pov.line (PPP$/day)	Headcount (%)	Pov. gap (%)	Squared pov. gap	Num of poor (mil.)	Population (mil.)
1.90	3.54	0.66	0.22	71.02	2,006.15
1.90	2.15	0.57	0.27	10.30	479.07
1.90	5.40	2.60	1.82	33.59	621.98
Survey data coverage is too low, the result is suppressed					
1.90	15.09	2.79	0.79	256.24	1,698.09
1.90	40.99	15.95	8.37	388.72	948.32
1.90	12.55	3.80	1.80	766.01	6,103.68
1.90	10.67	3.23	1.53	766.01	7,178.83

Pov.line (PPP$/day)	Headcount (%)	Pov. gap (%)	Squared pov. gap	Num of poor (mil.)	Population (mil.)
1.90	7.12	1.45	0.47	141.82	1,991.81
1.90	2.42	0.65	0.31	11.53	476.57
1.90	5.55	2.62	1.81	34.14	615.13
Survey data coverage is too low, the result is suppressed					
1.90	17.51	3.37	0.98	293.30	1,675.02
1.90	42.60	16.72	8.84	393.14	922.86
1.90	14.61	4.32	2.00	880.30	6,025.33
1.90	12.41	3.67	1.70	880.30	7,092.16







data.worldbank.org/sdgatlas

An all-new 2018 edition of the Atlas of Sustainable Development Goals, featuring over 180 annotated data visualizations on trends, data and measurement issues related to the 17 SDGs.

Why an SDG Atlas?

How are the SDGs Monitored?

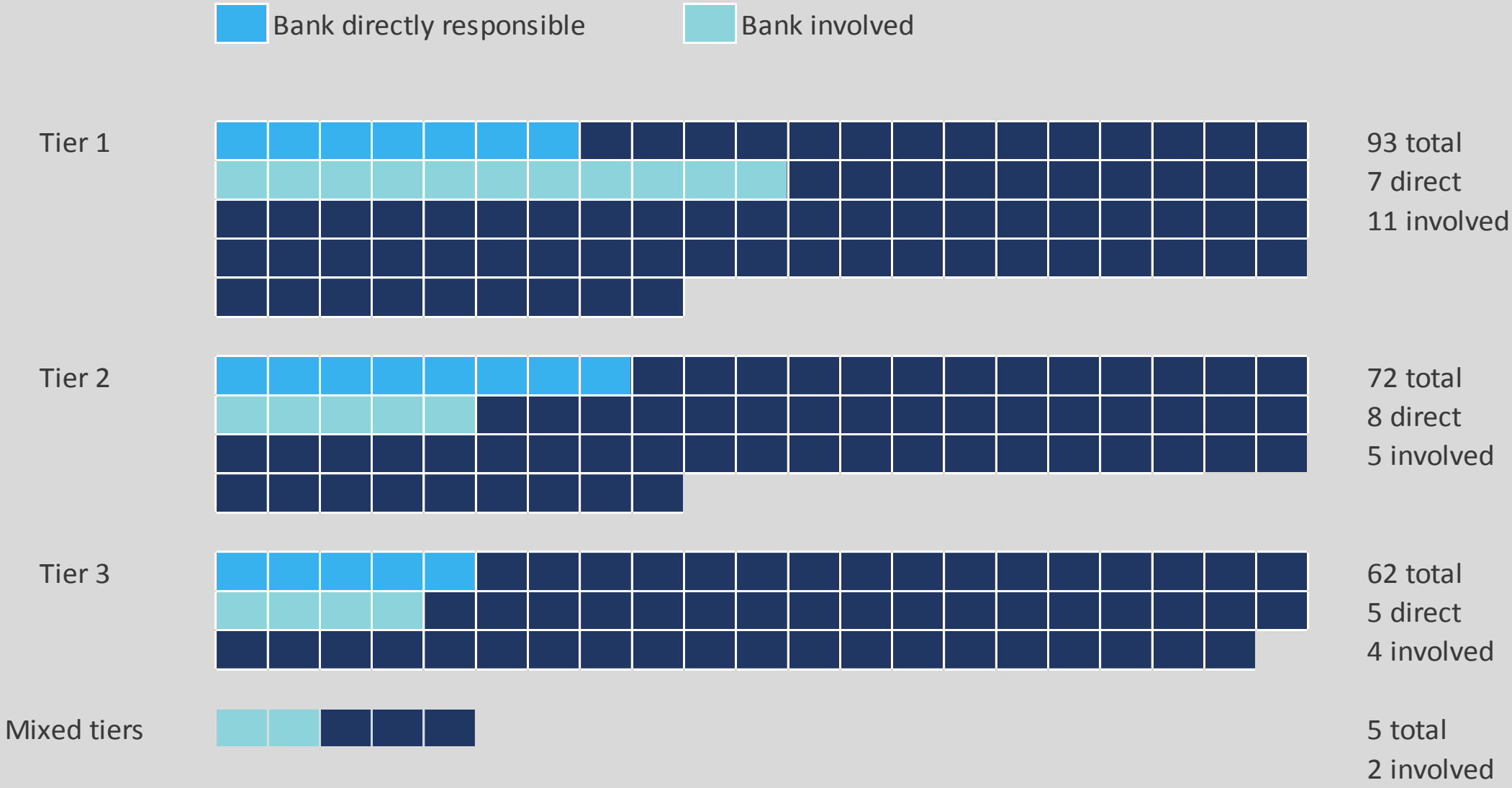
- Inter-agency and Expert Group on SDG Indicators (IEAG-SDGs)
- Develops global indicator framework
- Includes member states; regional and international agencies are observers

The Bank's SDG Indicators Group

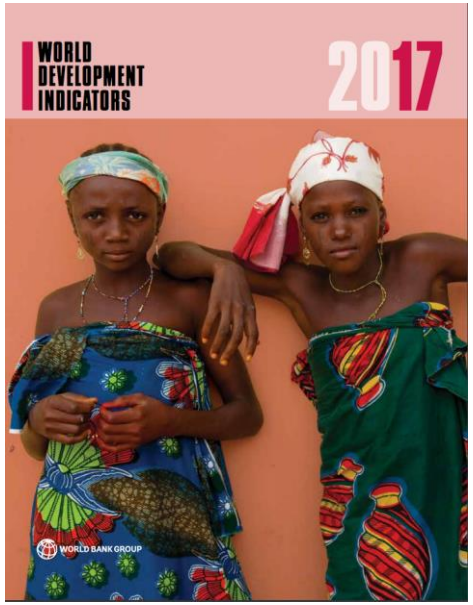
- Members from across the Bank's thematic global practices providing technical input to all 17 goals
- Bank responsible for reporting on 20 indicators covering 9 goals and involved in another 20+.
- All work closely aligned with the Bank's own Twin Goals

No	Indicator	Name	Bank Unit	Tier
1	1.1.1	$1.90 poverty	Poverty GP, DECPI, DECDG	1
2	1.2.1	Monetary poverty, national	Poverty GP	2
3	1.2.2	Multidimensional poverty, national	Poverty GP, DECPI	2
4	1.3.1	Social Protection Coverage	SPL GP	1
5	1.4.2	Land tenure security	DECAR	2
6	3.8.2	Universal Health Care	HNP & DECHD	2
7	5.1.1	Legal framework for Gender equality	DECIG	2
8	7.1.1	Electicity access	Energy GP	1
9	8.10.2	Access to Finance	DECFP	1
10	9.1.1	Rural road access	Transport & ICT GP	3
11	9.3.2	Small-scale industries with loan / credit line	DECIG	2
12	10.1.1	Growth of B40 vs average	Poverty GP	2
13	10.2.1	People under 50% median income	Poverty GP, DECDG	3
14	10.7.1	Recruitment costs	SPL GP	3
15	10.c.1	Remittance costs	Finance and Markets GP	2
16	16.5.2	Bribery	DECIG	2
17	16.6.1	Actual versus approved budget	Governance GP	1
18	17.3.2	Remittance volume / total GDP	DECDG	1
19	17.4.1	Debt service / exports of goods and services	DECDG	1
20	17.13.1	Marcoeconomic Dashboard	DECDG	3
21	17.17.1	Amount of Public Pvt Partnership	GTIAK	2

How is the World Bank involved in monitoring SDG indicators?



Source: UN IAEG-SDG and World Bank SDG Indicators Group

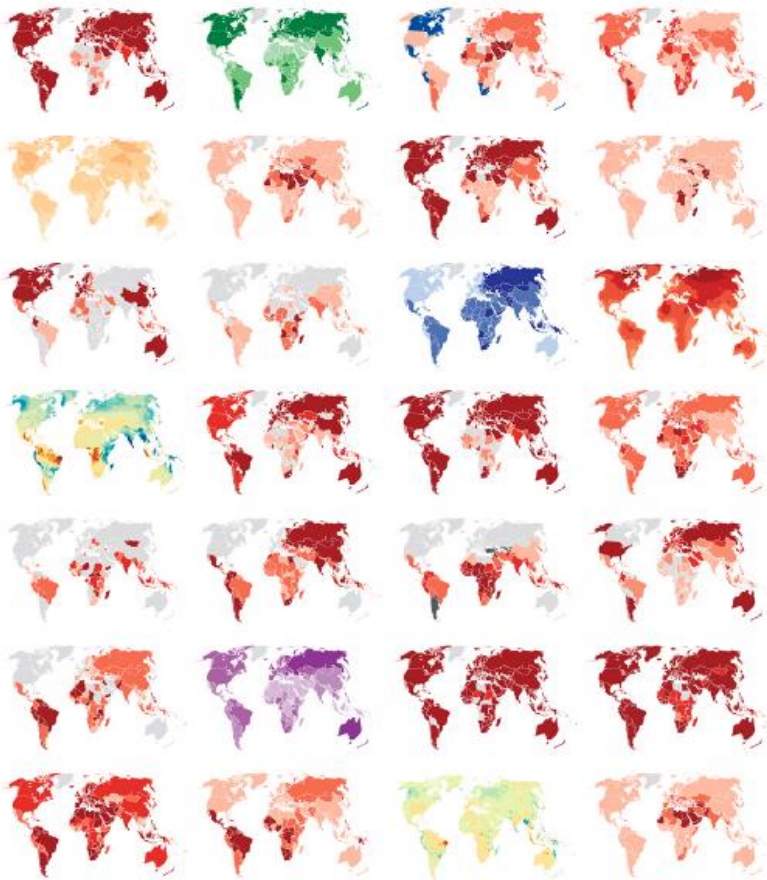

WORLD
DEVELOPMENT
INDICATORS
2017
WORLD BANK GROUP

Atlas of Sustainable Development Goals
2017
From World Development Indicators
WORLD BANK GROUP

SDG Atlas - Open data, open code

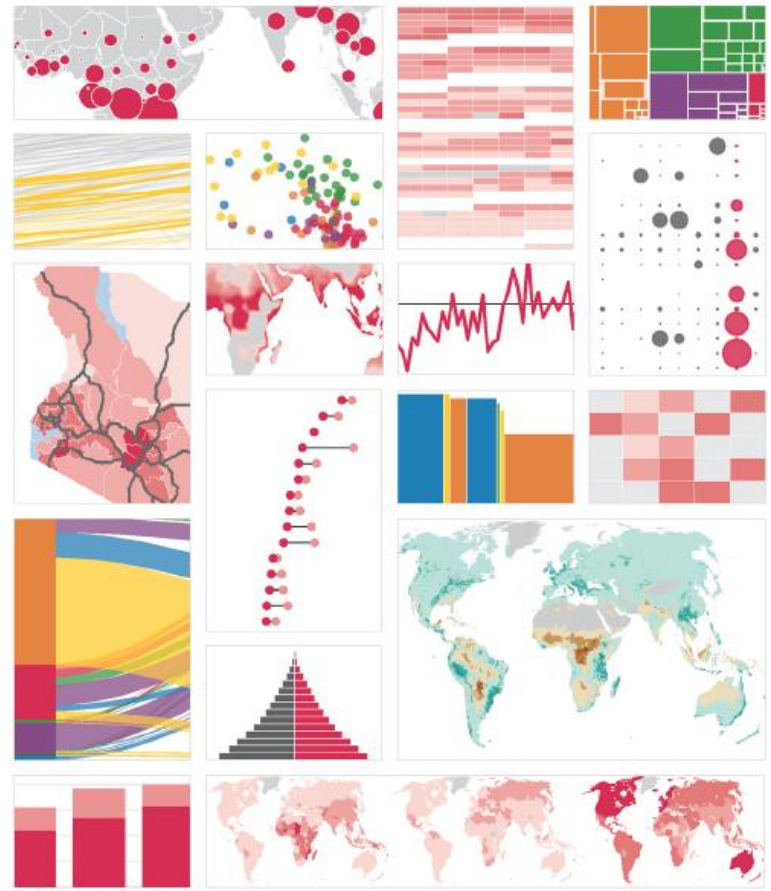
- Produced by all of the Bank
- Bank's first fully reproducible publication
- Caters to a wide audience

Atlas of Sustainable Development Goals
2017 From World Development Indicators



WORLD BANK GROUP

Atlas of Sustainable Development Goals
2018 From World Development Indicators



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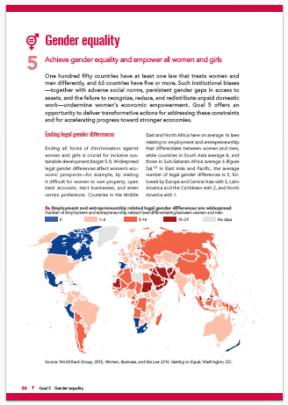

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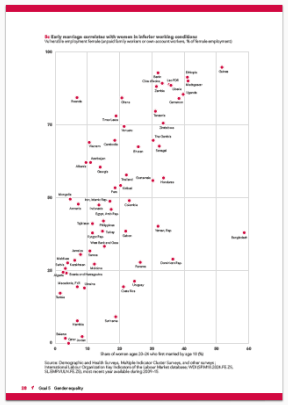

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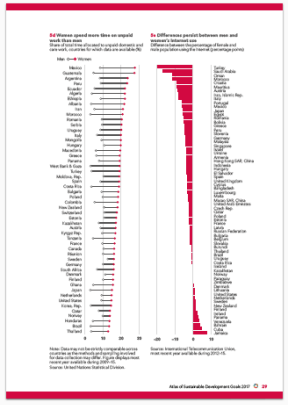

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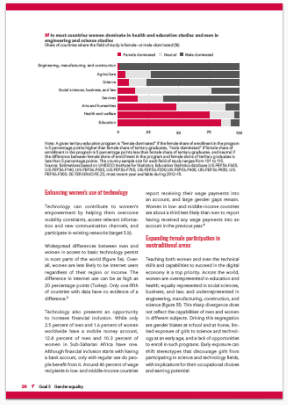

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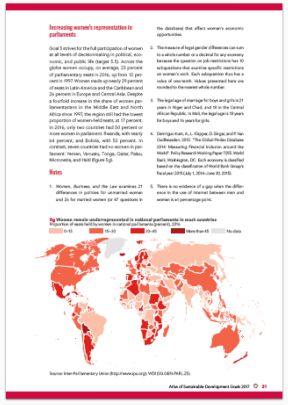

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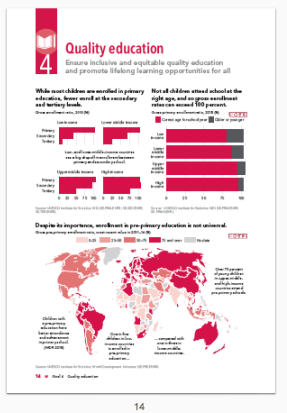

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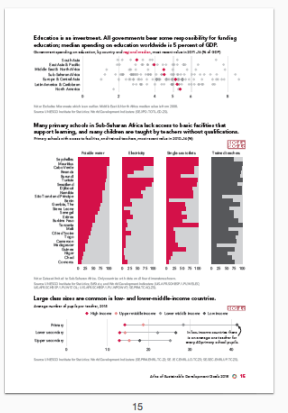

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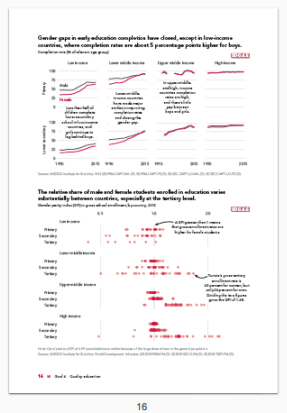

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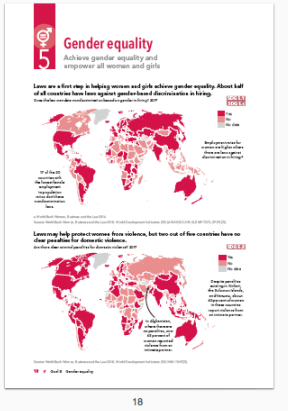

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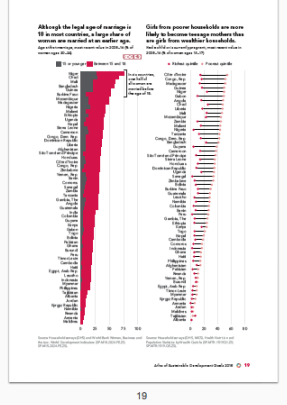

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2017

2018

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SDG Atlas 2018

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Atlas of Sustainable Development Goals

2018 From World Development Indicators

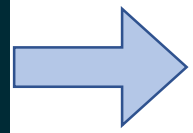
The Atlas of Sustainable Development Goals 2018 presents maps, charts, and stories related to the 17 Sustainable Development Goals. It discusses trends, comparisons, and measurement issues using accessible and shareable data visualizations.

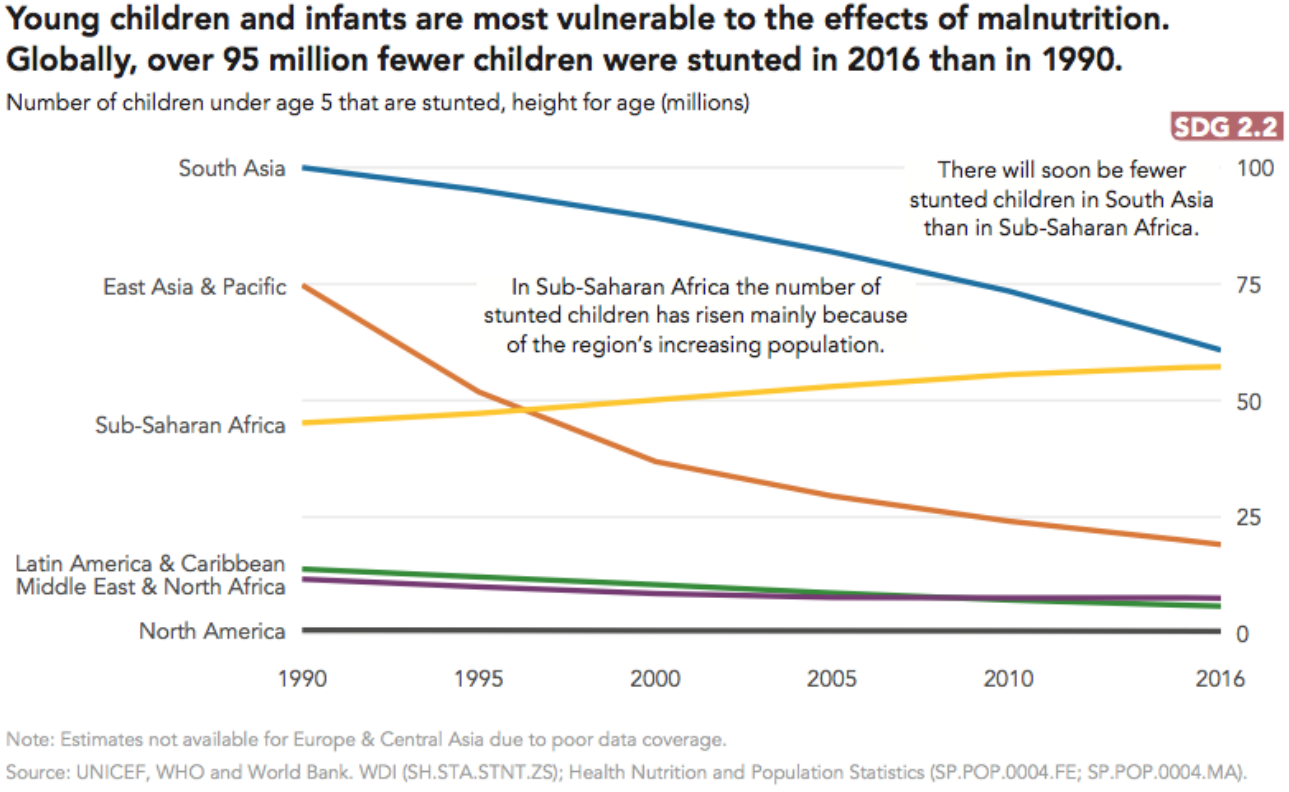
The data draw on the World Development Indicators the World Bank's compilation of internationally comparable statistics about global development and the quality of people's lives. For each of the SDGs, relevant indicators have been chosen to illustrate important ideas.

This contents of this publication are available as a PDF, the data are available in the World Bank's Data Catalog and the code used to generate the majority of figures are available on Github. The 2017 edition of the Atlas of Sustainable Development Goals can be found here.

Open Data. Open Code. All data visualizations built with R and ggplot for a computationally reproducible publication.

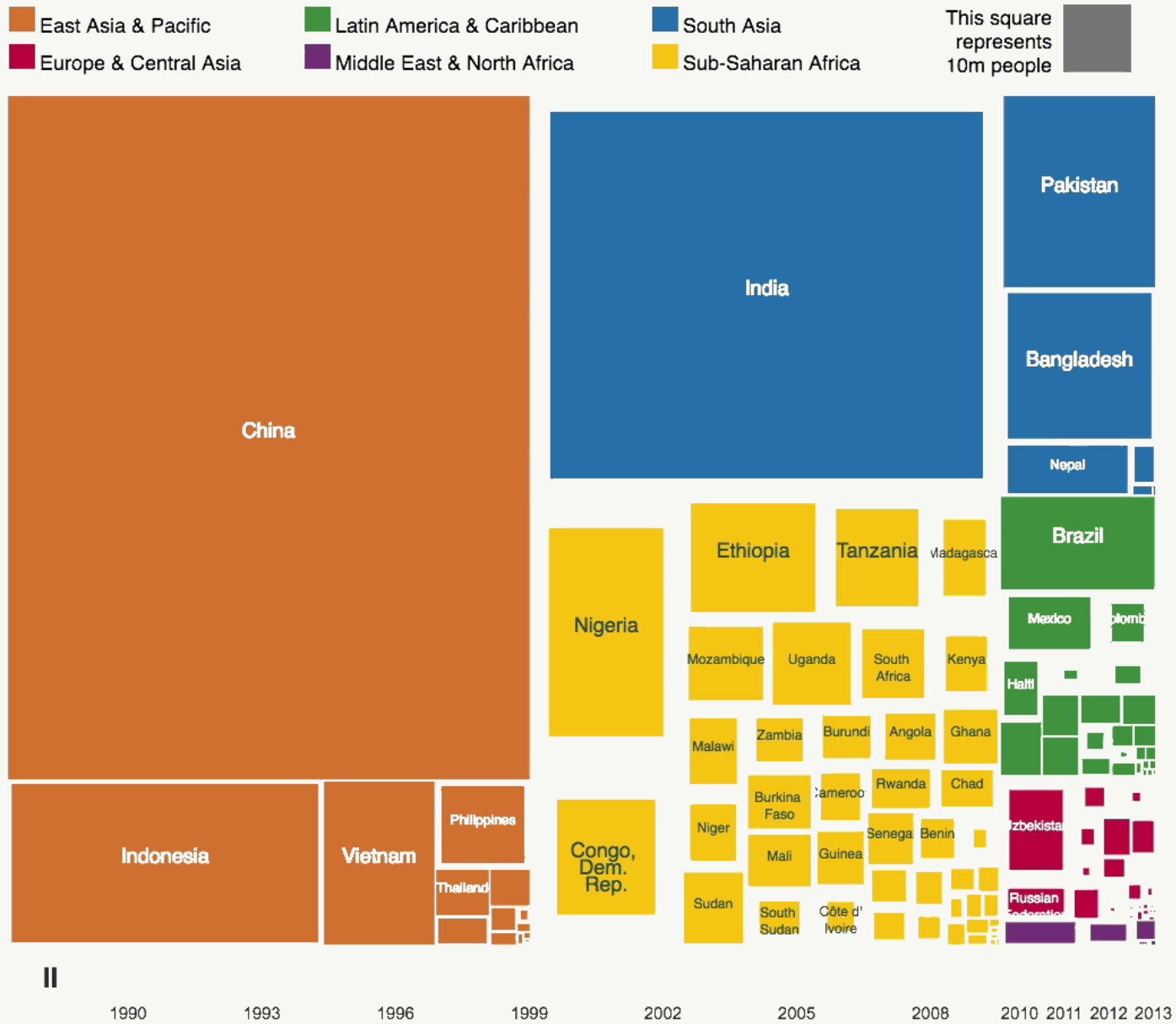
```r
#page 1
fig_sdg2_stunted_number <- function(years = 1989:2016) {

  ind <- c("SH.STA.STNT.ZS", "SP.POP.0004.FE", "SP.POP.0004.MA")
  df_raw <- wbgdata(
    country = wbgref$regions$iso3c,
    indicator = ind,
    years = years
    )

  df <- df_raw %>%
    mutate(value = (SH.STA.STNT.ZS/100) * (SP.POP.0004.FE + SP.POP.0004.MA)) %>%
    select(iso3c, date, value) %>%
    filter(complete.cases(.))

  figure(
    data = df,
    plot = function(df, style = style_atlas()) {
      p <- ggplot(df, aes(x = date, y = value, group = iso3c, color = iso3c)) +
        geom_line(size = style$linesize) +
        scale_y_continuous(
          labels = millions(),
          position="right",
          sec.axis = dup_axis(
            breaks = df %>% filter(date == min(date)) %>% pull(value) %>% repel(5e6),
            label = wbgref$regions$labels[df %>% filter(date == min(date)) %>% pull(iso3c)]
          )) +
        scale_x_continuous(breaks = bracketed_breaks(df$date),
                           expand=c(0,0),
                           limits=range(df$date)) +
        scale_color_manual(
          values = style$colors$regions,
          labels = wbgref$regions$labels
        ) +
        scale_linetype_manual(values = style$linetypes$regions) +
        style$theme()
    },
    title = "Young children and infants are most vulnerable to the effects of malnutrition. Globally, over
    note = "Note: Estimates not available for Europe & Central Asia due to poor data coverage.",
```





What does it contain?

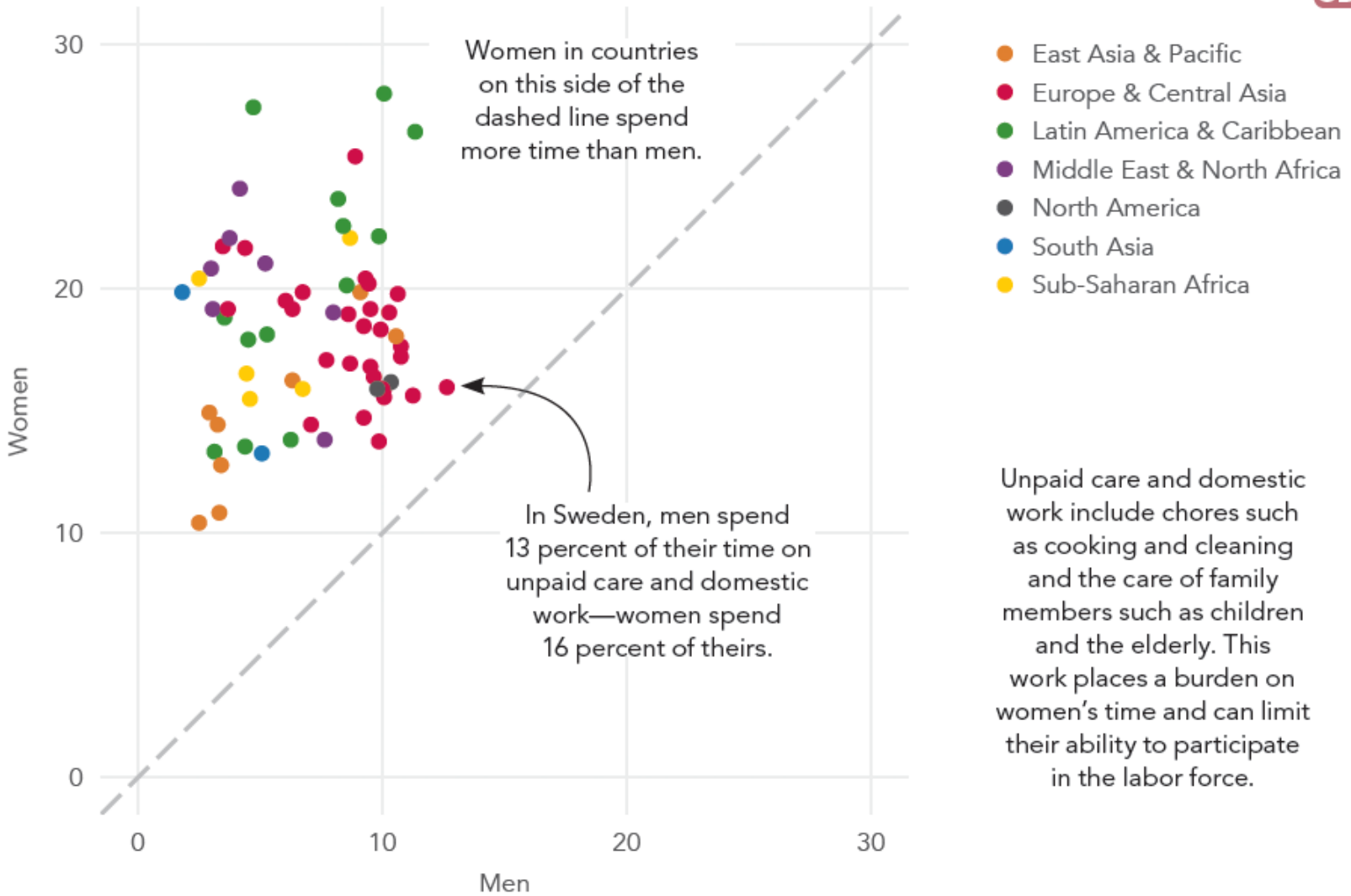
People living in extreme poverty,



Women average 2.6 times as much time on unpaid care and domestic work as men do.

Proportion of time spent on unpaid care and domestic work, most recent value in 2007–15 (% of 24 hour day)

SDG 5.4



Unpaid care and domestic work include chores such as cooking and cleaning and the care of family members such as children and the elderly. This work places a burden on women's time and can limit their ability to participate in the labor force.

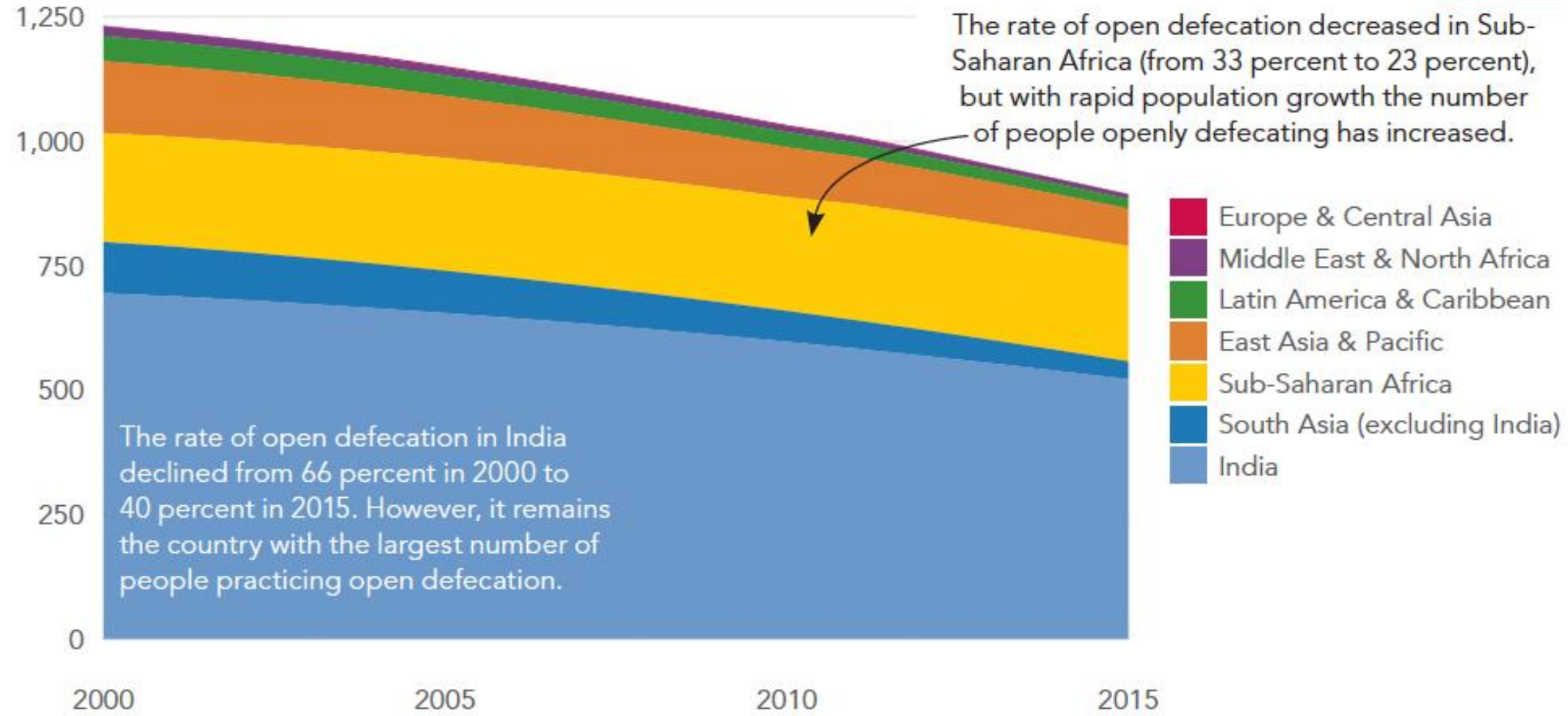
Note: 2.6 times estimate from UN Women (2018) http://www.unwomen.org/en/digital-library/sdg-report. Data may not be strictly comparable across countries as the method and sampling used for data collection may differ.

Source: UN Statistics Division. World Development Indicators (SG.TIM.UWRK.MA; SG.TIM.UWRK.FE).

India still has the largest number of people practicing open defecation.

People practicing open defecation (millions)

SDG 6.2



Note: North America is zero over the entire period; Europe & Central Asia is zero from 2013.

Source: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. WDI (SH.STA.ODFC.ZS; SP.POP.TOTL).

Drinking water is essential to life, but only 71 percent of people have water that is considered safely managed.

Access to water at different categories, 2015 (% of global population)

SDG 6.1

Safely managed water is the highest level of service. It requires an improved water source, located on premises, available when needed, and free from contamination.

Together, safely managed and basic water are referred to as at least basic water

Basic water is still improved but availability and freedom from contamination are not guaranteed, and it need not be on premises, but must be within a 30-minute roundtrip.

Limited water is water from an improved source with a roundtrip collection time of more than 30 minutes.

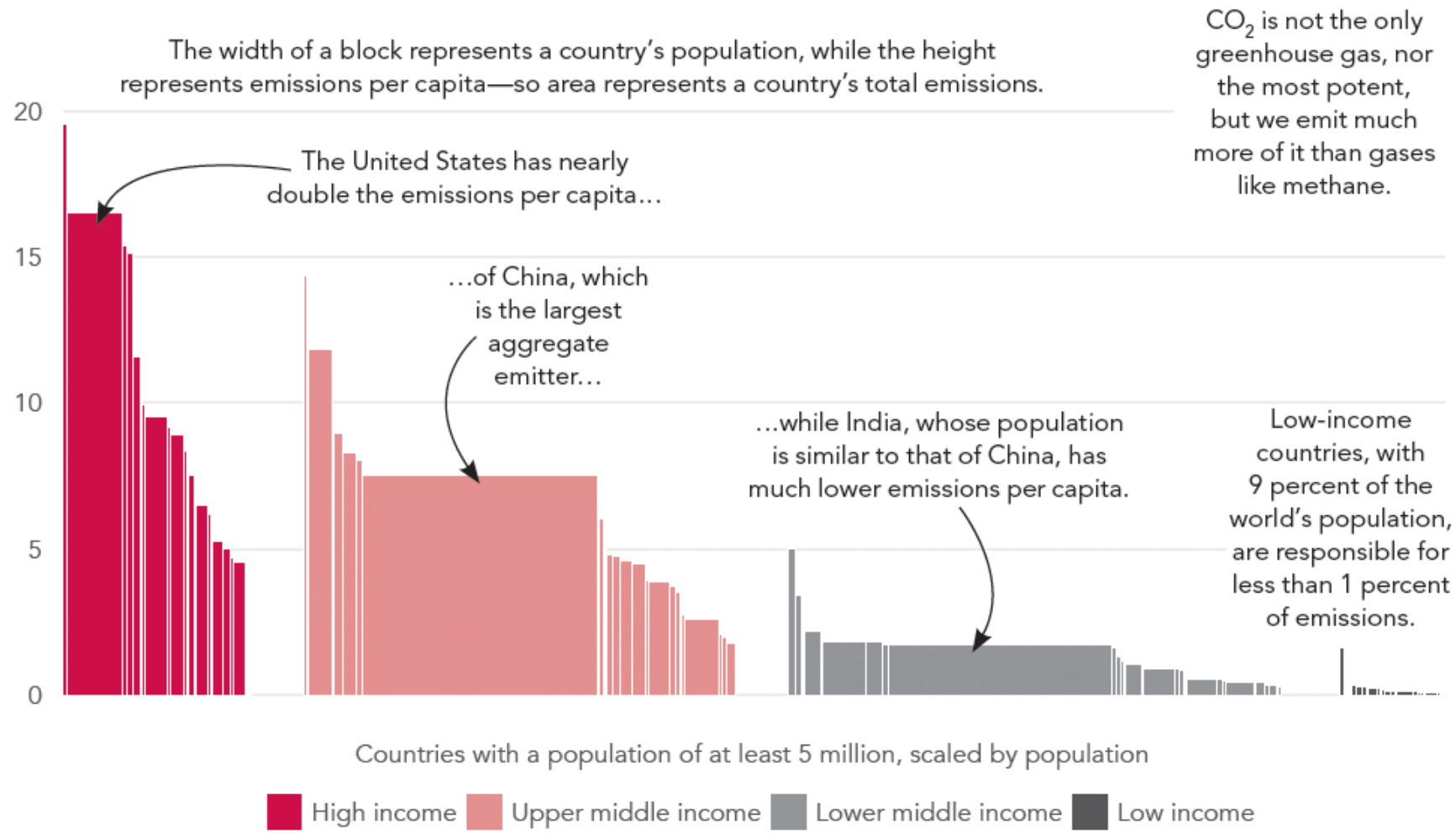
Unimproved sources have little or no protection from contamination.

Surface water (such as rivers)

Source: WHO/UNICEF JMP for Water Supply, Sanitation and Hygiene, https://washdata.org. WDI (SH.H2O.SMDW.ZS; SH.BASW.ZS).

Climate change is caused by this atmospheric CO_2 and other greenhouse gases. Emissions per capita vary across and within income groups.

CO_2 emissions, by country and income group, 2014 (metric tons per capita)

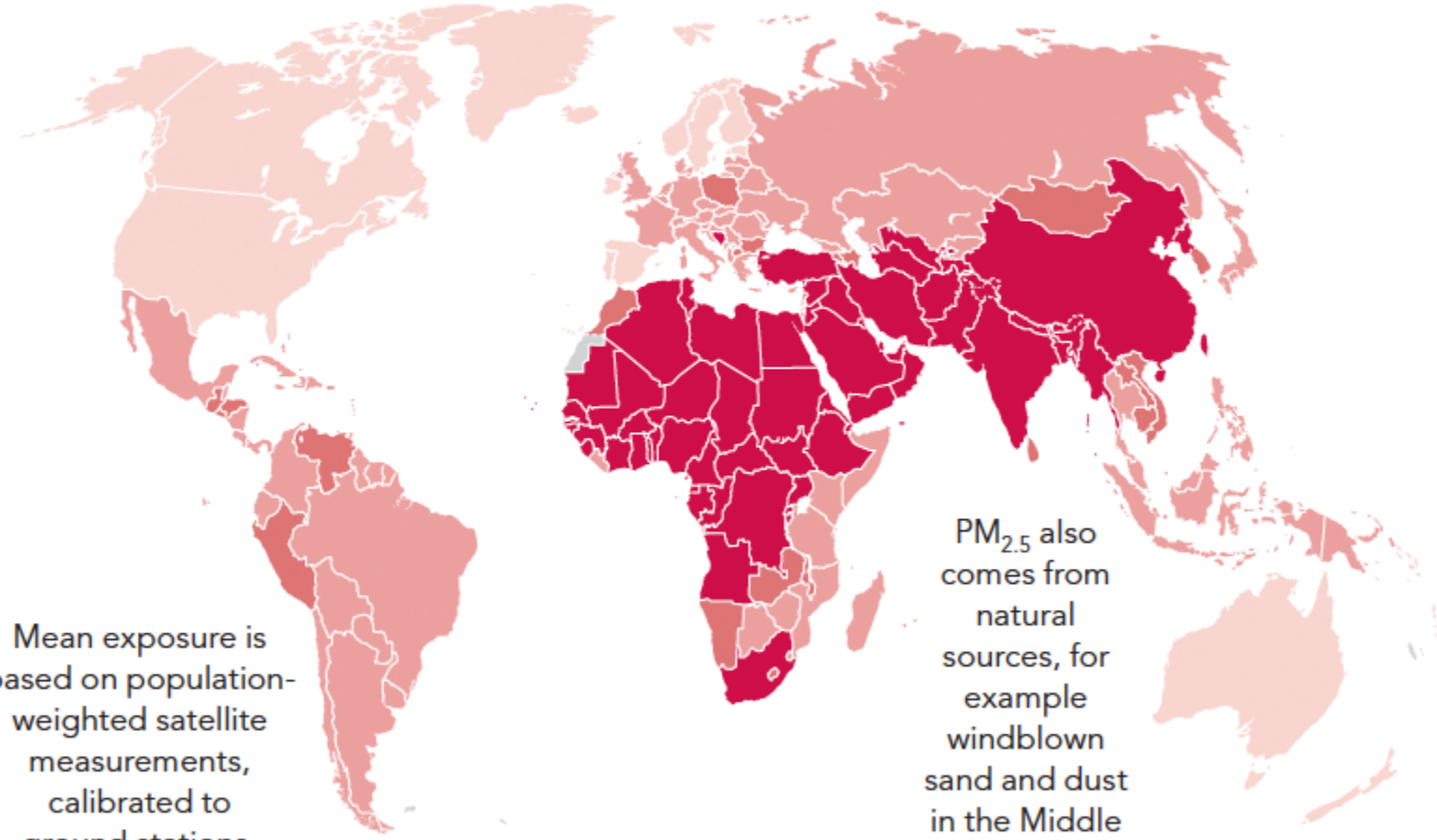


Source: Carbon Dioxide Information Analysis Center. World Development Indicators (EN.ATM.CO2E.KT; SP.POP.TOTL).

Most countries exceed safe levels of fine particulate matter ($PM_{2.5}$) pollution. Industry, transport, and household uses of solid fuels are among the sources.

Ambient air pollution, $PM_{2.5}$, annual mean exposure, 2016 (micrograms per cubic meter, $\mu g/m^3$)

SDG 11.6



Mean exposure is based on population-weighted satellite measurements, calibrated to ground stations.

$PM_{2.5}$ also comes from natural sources, for example windblown sand and dust in the Middle East and North Africa.

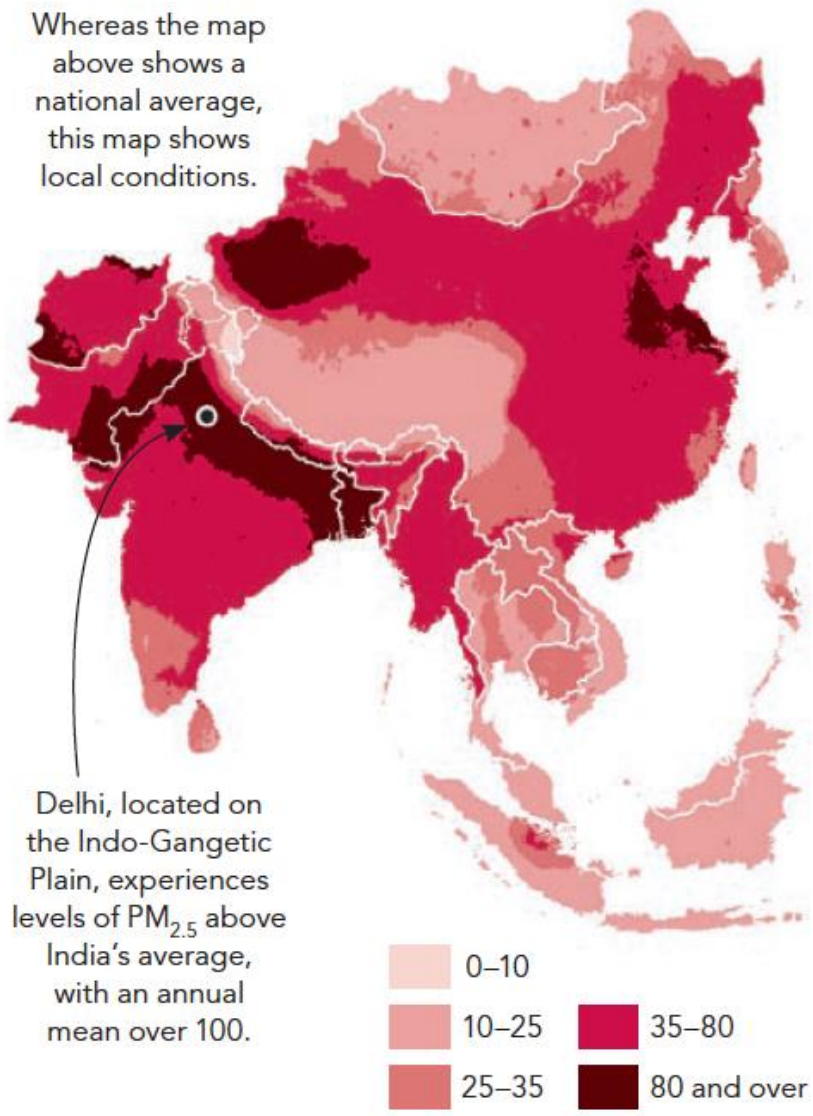
$PM_{2.5}$ particles are less than 2.5 microns in diameter and can penetrate deep into the respiratory tract.

WHO recommends that annual mean exposure to $PM_{2.5}$ pollution not exceed 10 micrograms per cubic meter.

Source: van Donkelaar and others 2016. World Development Indicators (EN.ATM.PM25.MC.M3).

But $PM_{2.5}$ measurements show local variation from the national means.

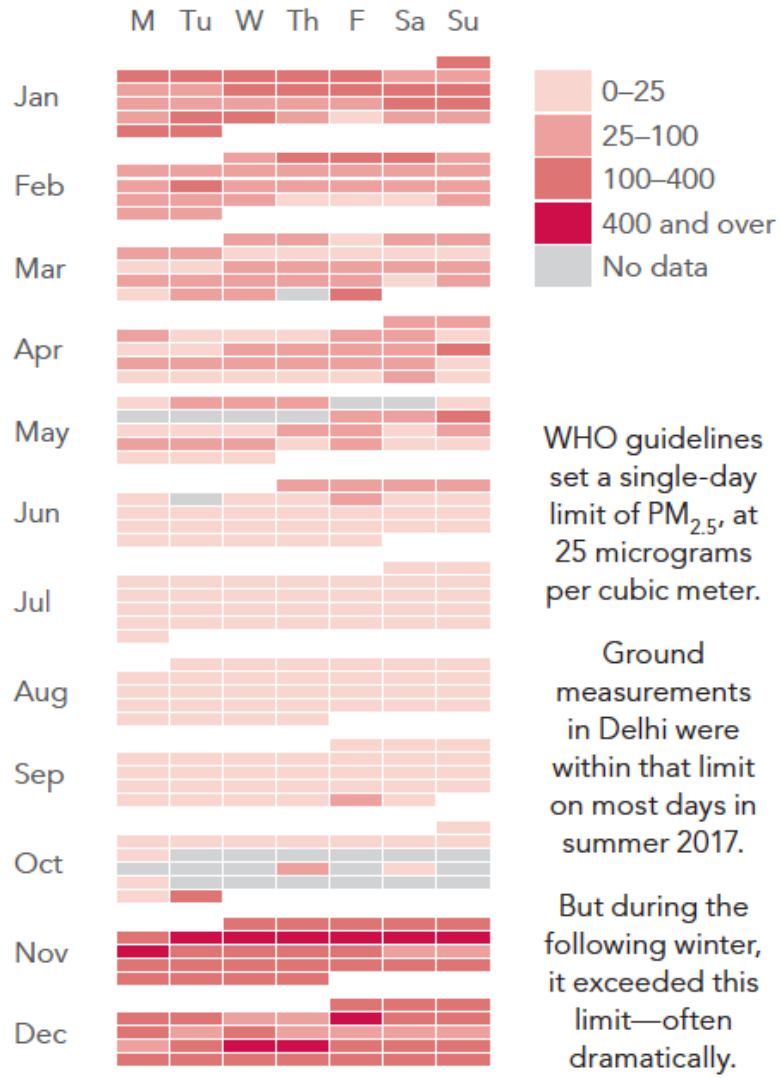
$PM_{2.5}$, gridded by 0.1 degree, 2016 ($\mu g/m^3$)



Source: van Donkelaar and others 2016. http://doi.org/10.1021/acs.est.5b05833

And even in a specific location, $PM_{2.5}$ varies with seasons and weather.

$PM_{2.5}$, daily mean, DTU[a] Delhi, 2017 ($\mu g/m^3$)



WHO guidelines set a single-day limit of $PM_{2.5}$, at 25 micrograms per cubic meter.

Ground measurements in Delhi were within that limit on most days in summer 2017.

But during the following winter, it exceeded this limit—often dramatically.

a. Sampled at Delhi Technological University (DTU).

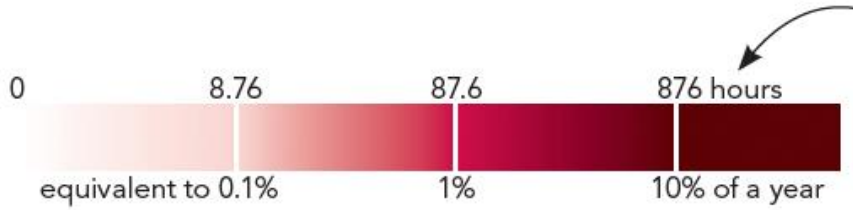
Source: India Central Pollution Control Board. https://app.cpcbccr.com

Industrial fishing takes place in more than half the world's ocean area, about four times the area of land-based agriculture.

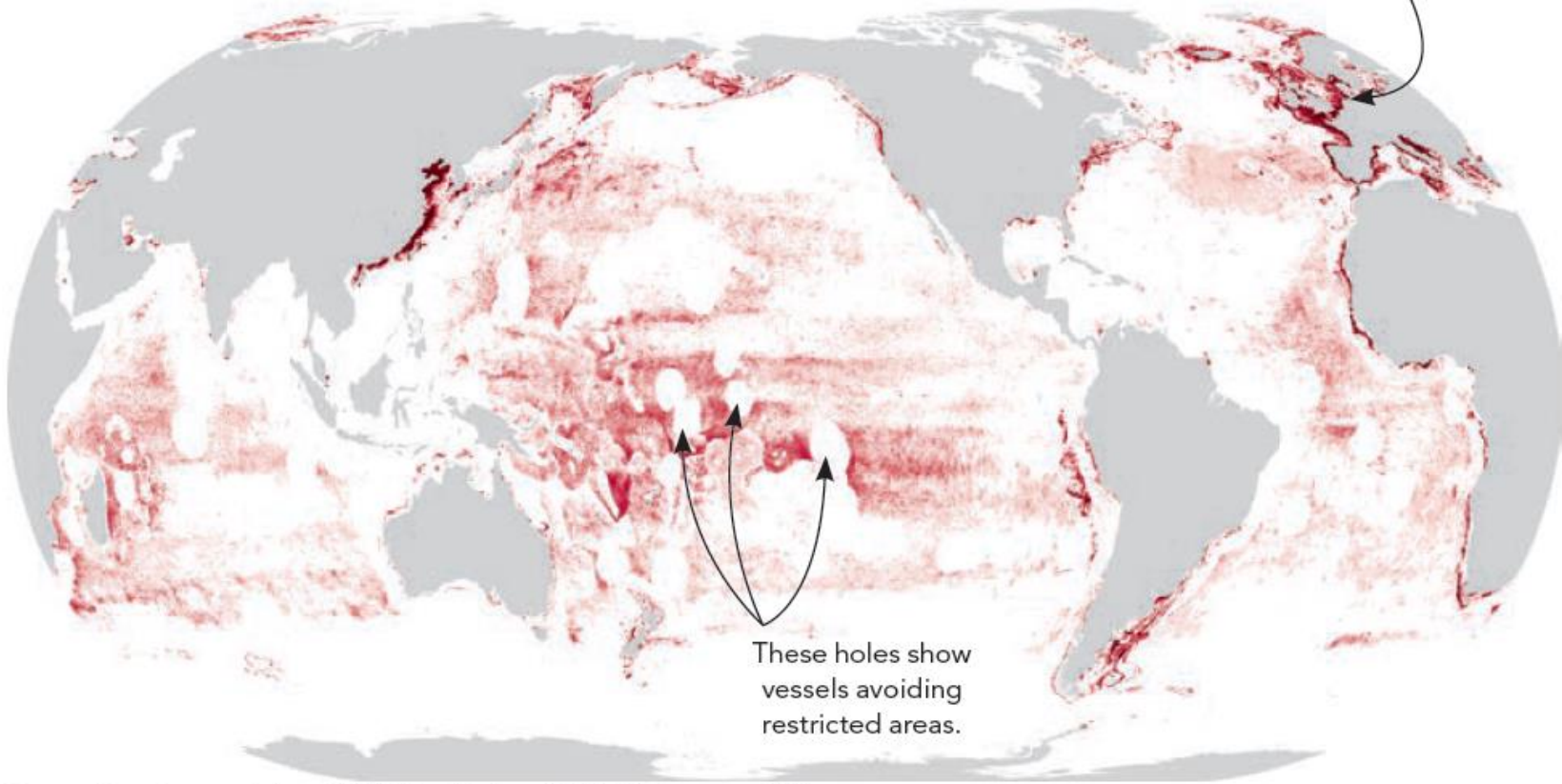
Vessel-hours of fishing activity, 2016 (per sq. km)

SDG 14.4

This recently published dataset uses radio transmissions, emitted for collision avoidance, to track fishing vessels. It excludes small vessels and, probably, illegal fishing.



Each square kilometer of the most heavily fished regions of Europe and East Asia had activity equivalent to more than 10 percent of the 8,760 hours in a year.

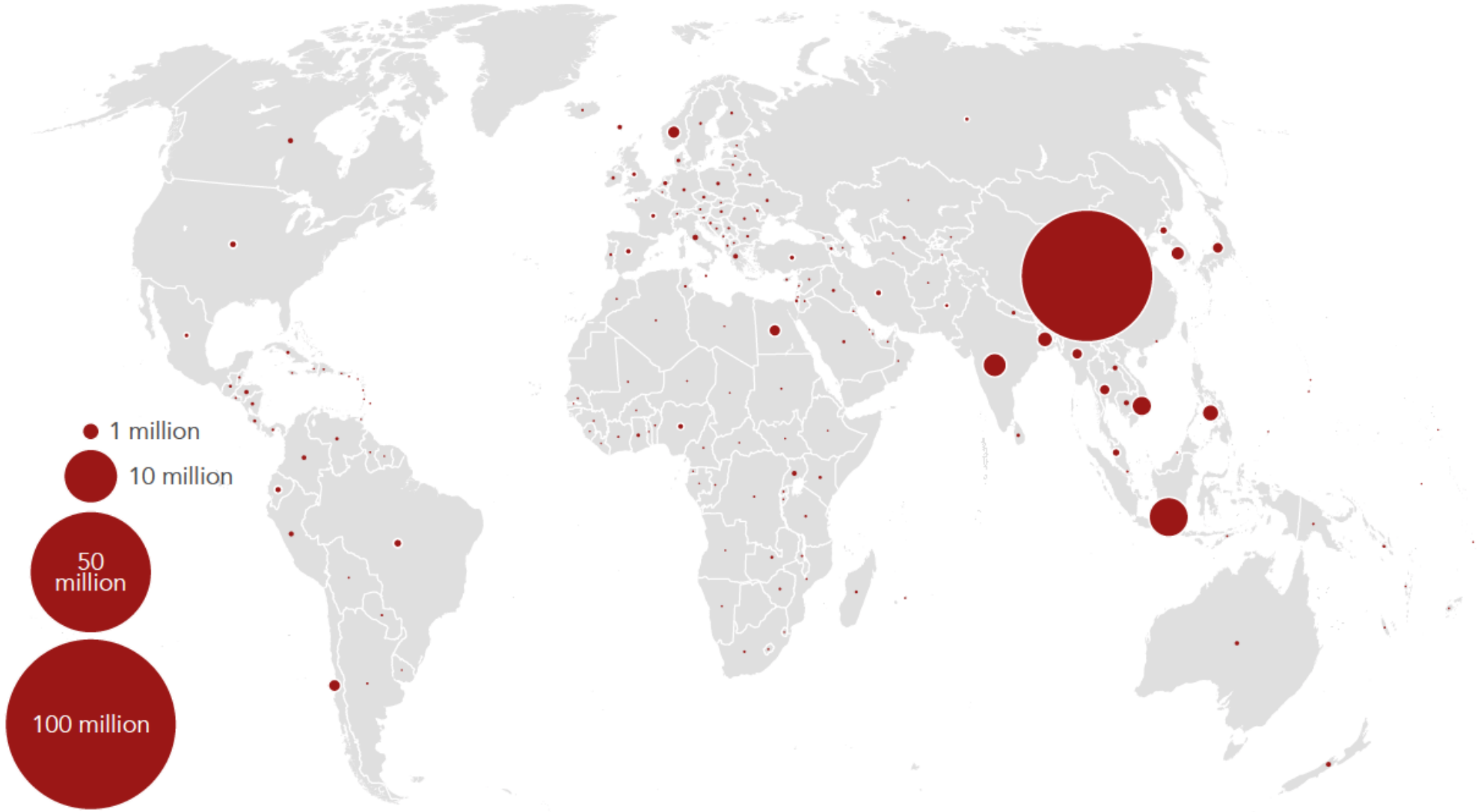


Source: Kroodsma and others 2018. http://doi.org/10.1126/science.aao5646

Which country is the largest producer of farmed fish?

14e China is the largest aquaculture producer

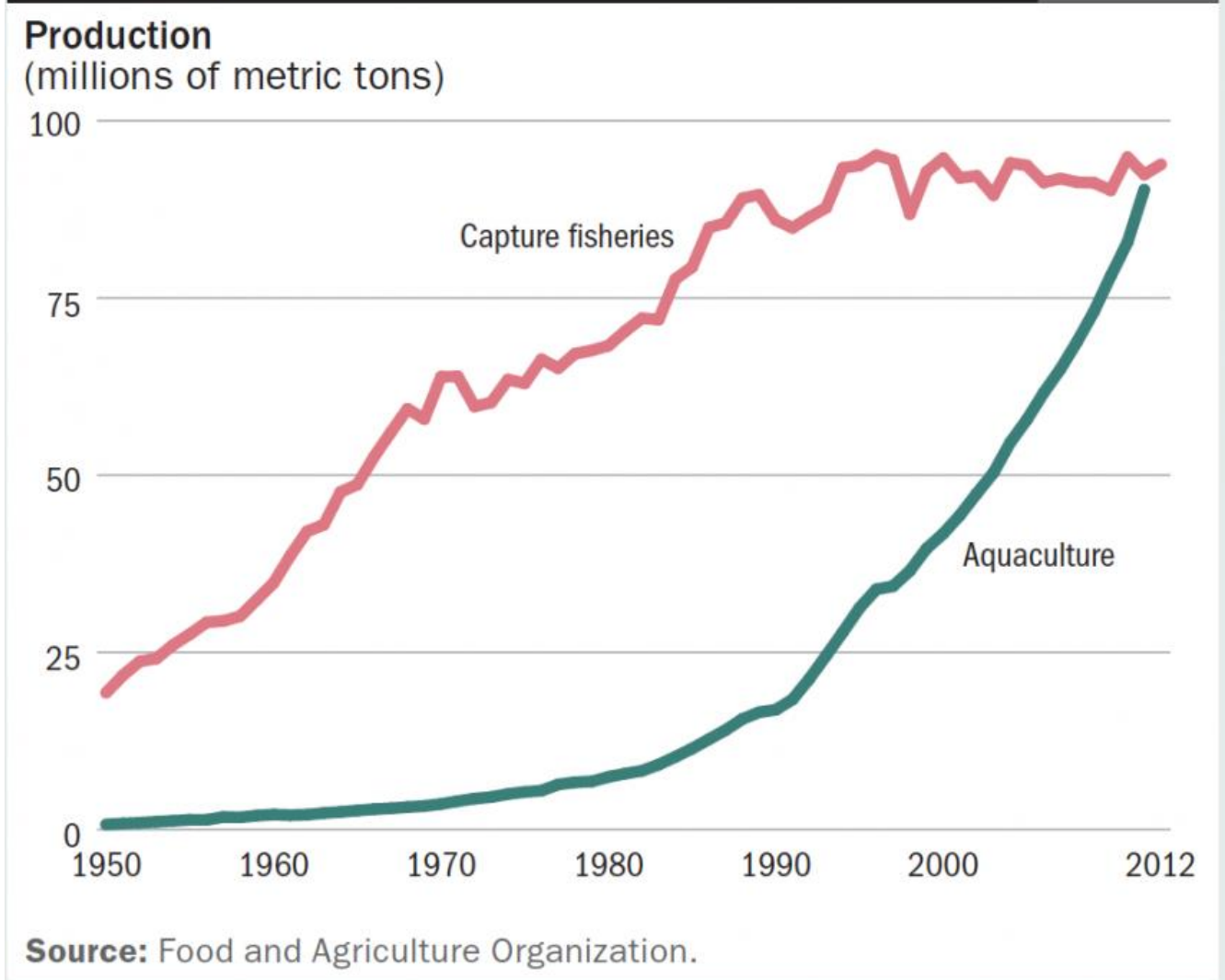
Aquaculture production (metric tons)



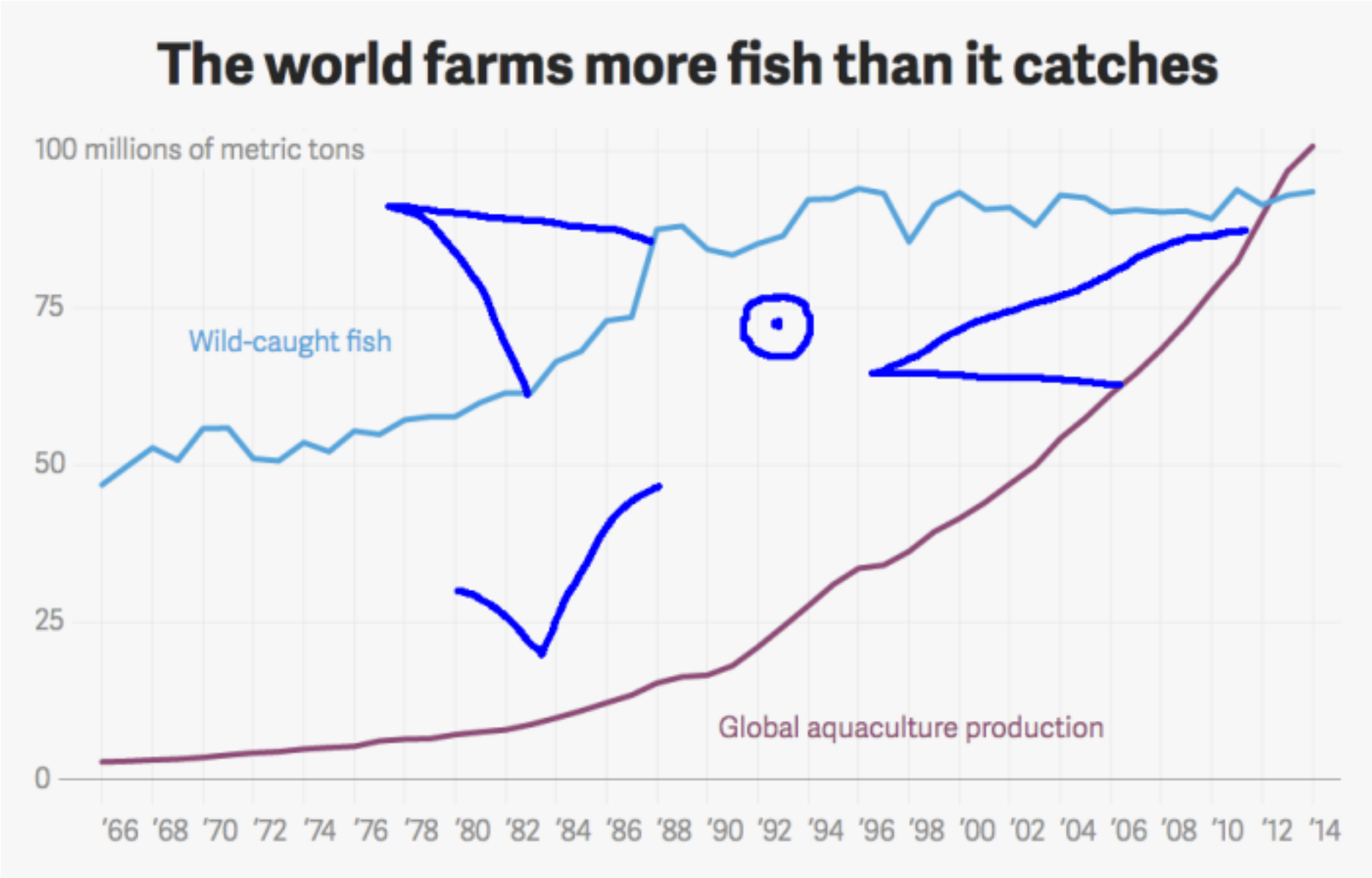
Source: Food and Agriculture Organization; WDI (ER.FSH.AQUA.MT).

Capture fisheries have stagnated, while aquaculture has increased

14a

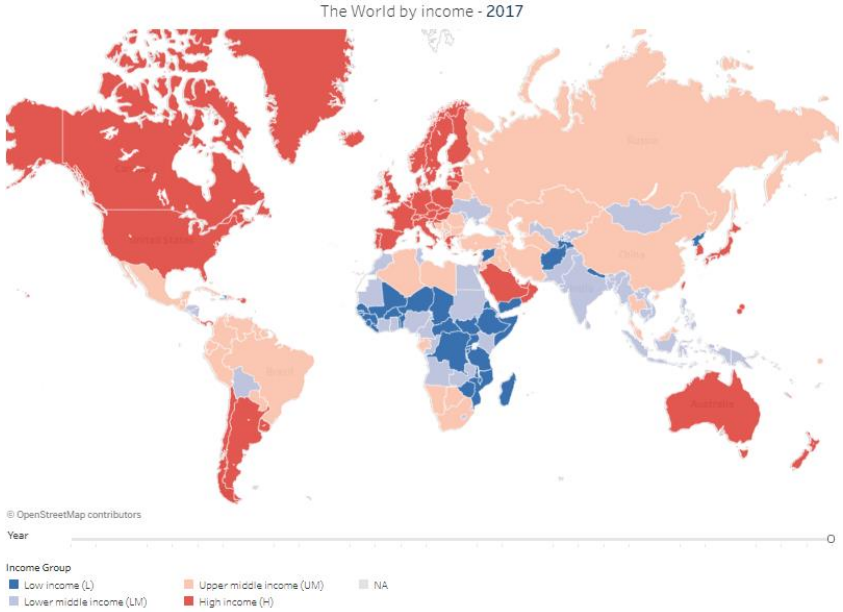


Source: Food and Agriculture Organization.


The world farms more fish than it catches
100 millions of metric tons
75
50
25
0
Wild-caught fish
Global aquaculture production
'66 '68 '70 '72 '74 '76 '78 '80 '82 '84 '86 '88 '90 '92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '12 '14

Online guide to the World Development Indicators

A new way to discover data on development



Agriculture				
Indicator	**Code**	**Time coverage**	**Region coverage**	**Get data**
Agricultural land (% of land area)	AG.LND.AGRI.ZS			
Land under cereal production (hectares)	AG.LND.CREL.HA			
Cereal yield (kg per hectare)	AG.YLD.CREL.KG			
Agriculture, value added per worker (constant 2010 US$)	NV.AGR.EMPL.KD			
Climate				
Indicator	**Code**	**Time coverage**	**Region coverage**	**Get data**
CO2 emissions (metric tons per capita)	EN.ATM.CO2E.PC			
PM2.5 air pollution, mean annual exposure (micrograms per cubic meter)	EN.ATM.PM25.MC.M3			
PM2.5 air pollution, population exposed to levels exceeding WHO guideline value (% of total)	EN.ATM.PM25.MC.ZS			
Average precipitation in depth (mm per year)	AG.LND.PRCP.MM			

Data Themes

POVERTY AND INEQUALITY
poverty, prosperity, consumption, income distribution

PEOPLE
population dynamics, education, labor, health, gender

ENVIRONMENT
agriculture, climate change, energy, biodiversity, water, sanitation

ECONOMY
growth, economic structure, income and savings, trade, labor productivity

STATES AND MARKETS
business, stock markets, military, communications, transport, technology

GLOBAL LINKS
debt, trade, aid dependency, refugee, tourism, migration

Featured Stories

The feature stories highlight key development data issues. The WDI helps data users find information related to all aspects of development, both historical and current, and to follow trends and monitor progress towards a myriad of goals and targets. The database is compiled from officially-recognized sources and includes national, regional, and global estimates.

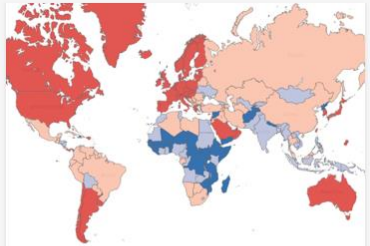
MORE STORIES

OCT 08, 2018
A changing world population

OCT 07, 2018
Tracking poverty in its many forms

OCT 06, 2018
Adjusting for price differences across the world

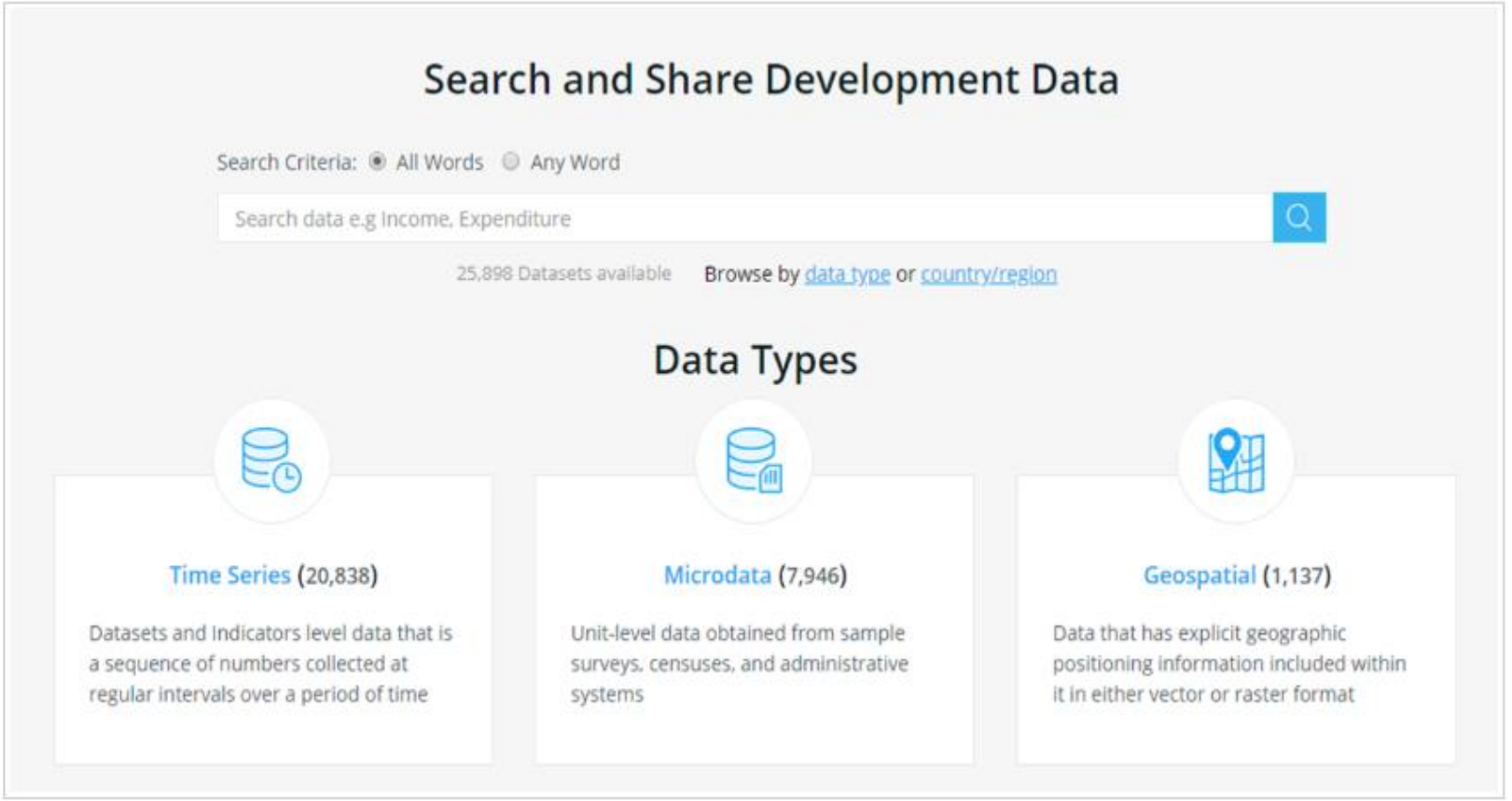
OCT 05, 2018
World Development Indicators: The Story



OCT 04, 2018
Classifying countries by income

World Bank’s Integrated Data Catalog

Continue to make sure data is shared and reused.



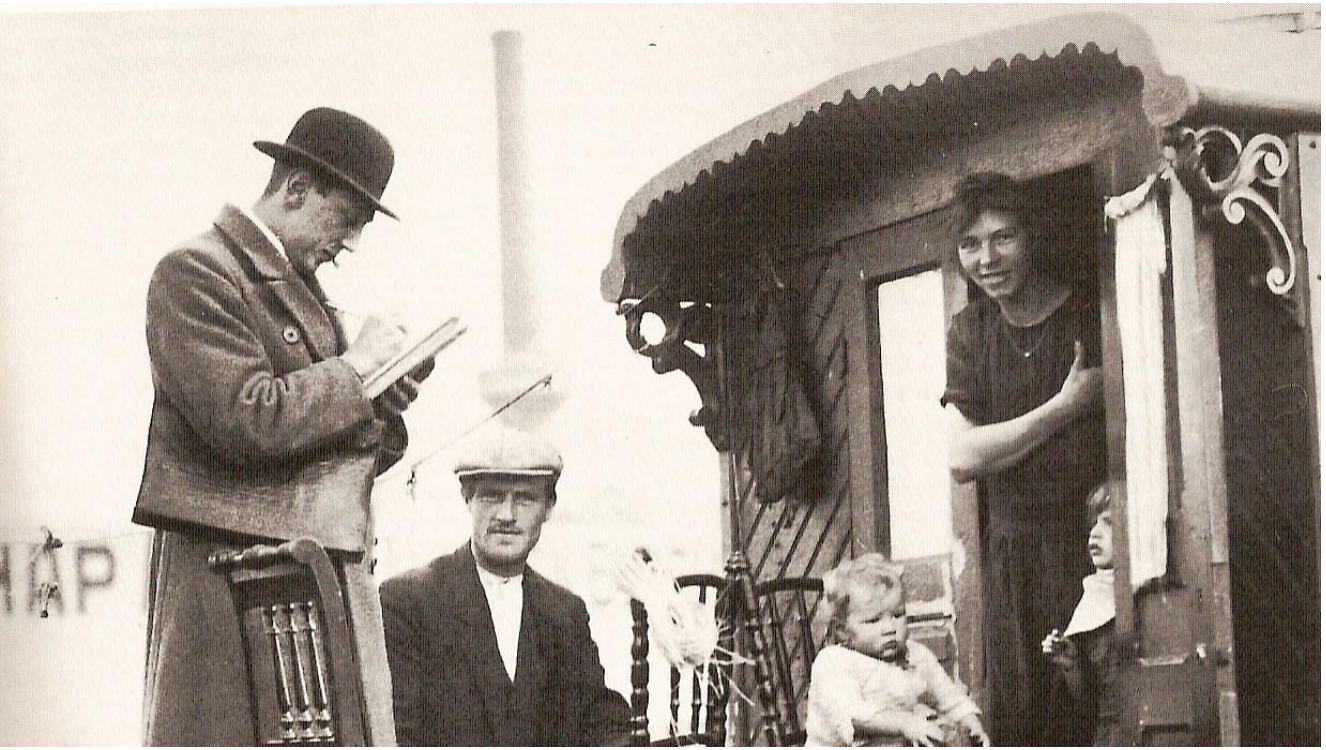
What’s next?

Integrating data into the fabric of development

Improving understanding and insights through

- New data science tools and skills
- New types of data and methods
- And …

… don’t forget surveys



29 + 28 + 20 = 77

World Bank Data
@worldbankdata

Following

Using data to improve development outcomes in #Sudan: how @DFID_UK & @worldbankdata are supporting #dataliteracy wrld.bg/TsDk30bck4z

UKaid
from the British people

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Thank You!

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