

# Poverty, Food, Water

Current Macro High Level Facts

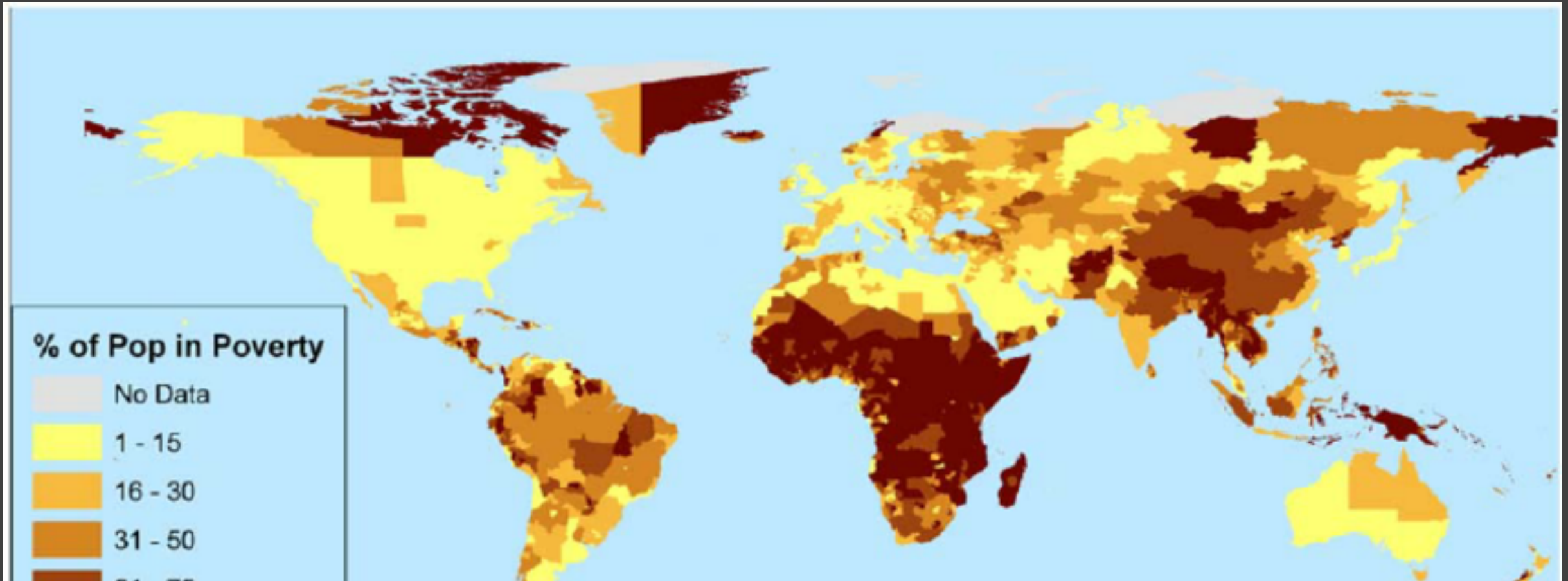
02/19/2020

# Facts on poverty

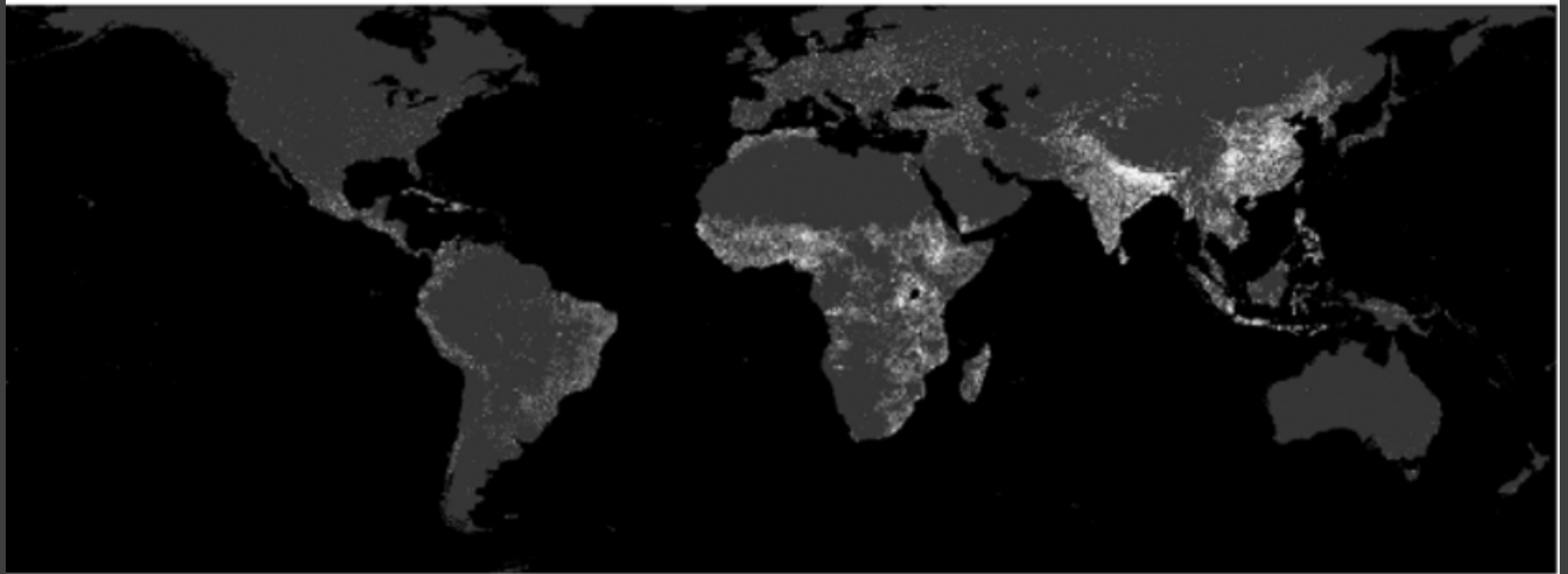
- More than 700 million people, or 10% of the world population, still live in extreme poverty. Surviving on less than US\$1.90 a day.
- Having a job does not guarantee a decent living. In fact, 8 per cent of employed workers and their families worldwide lived in extreme poverty in 2018.
- Globally, there are 122 women aged 25 to 34 living in extreme poverty for every 100 men of the same age group.
- The majority of people living on less than \$1.90 a day live in sub-Saharan Africa.
- High poverty rates are often found in small, fragile and conflict-affected countries.
- Poverty affects children disproportionately. One out of five children live in extreme poverty.
- As of 2018, 55% of the world's population have no access to social protection.
- In 2018, only 41% of women giving birth received maternity cash benefits



You want this on a  
map?



You want this on  
satellite?

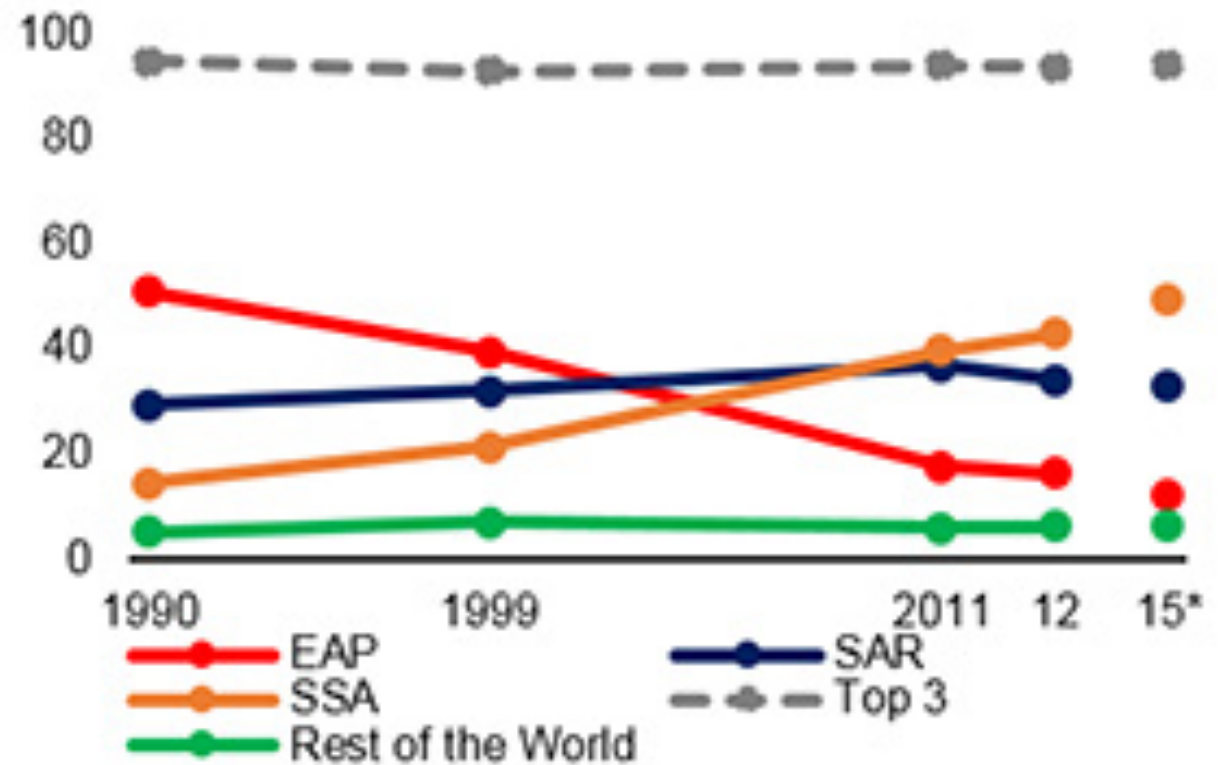


## Major Challenges

- Decline in global poverty is impressive but uneven -95% is concentrated in 3 regions (900mln people)
- Sub-Saharan Africa (43), East Asia and Pacific, South Asia.

Figure 1. Global poverty is concentrated in three regions, with Sub-Saharan Africa's share rising

Share in global poverty, percent



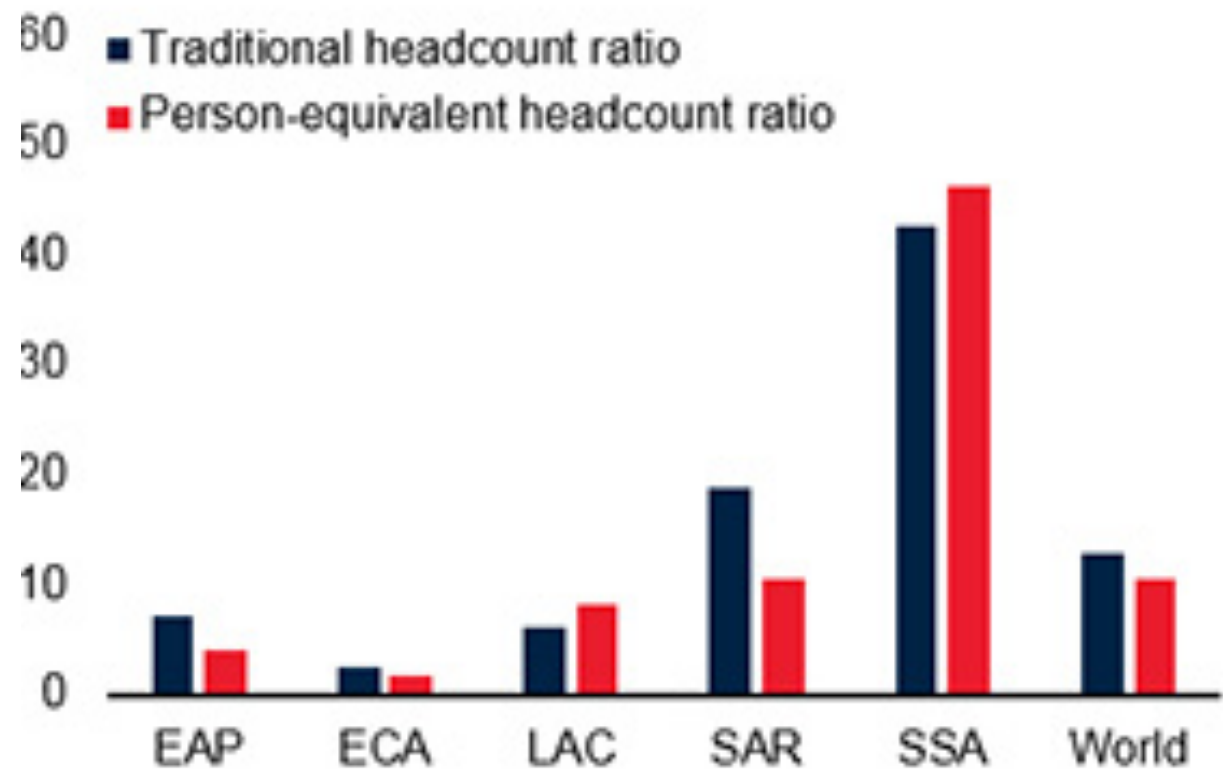
# The person Equivalent Head Count: Global Monitoring Report

- New Index: “Person Equivalent Poverty”
- Suppose that in a any base year income per day fall 40 cents below the poverty line, then a person with shortfall 80 cent counts for 2 and a person with short fall 20 cents counts for half
- Example? Suppose poverty line is 1.90 USD, what is the the head count of person with 120 cents short fall?

Depth  
charges

Figure 2. The person-equivalent headcount is significantly lower for SAR and higher for SSA

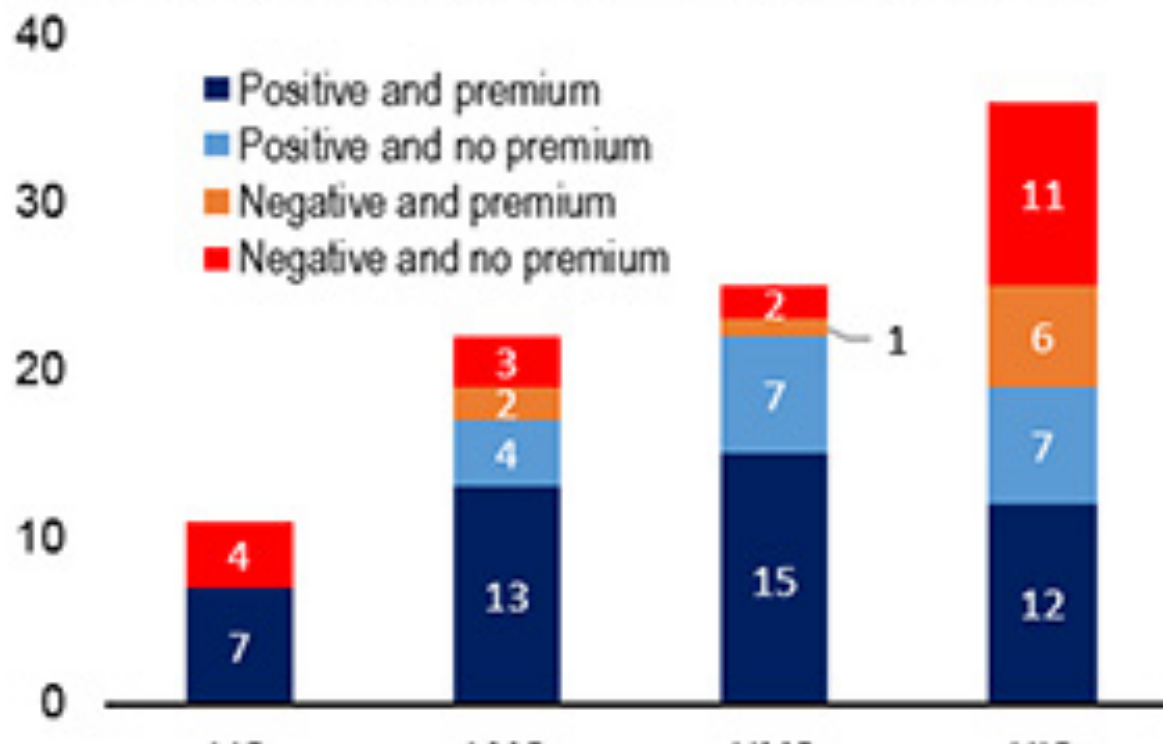
Poverty rates in 2012, percent (2011 PPP)



Poverty is reducing

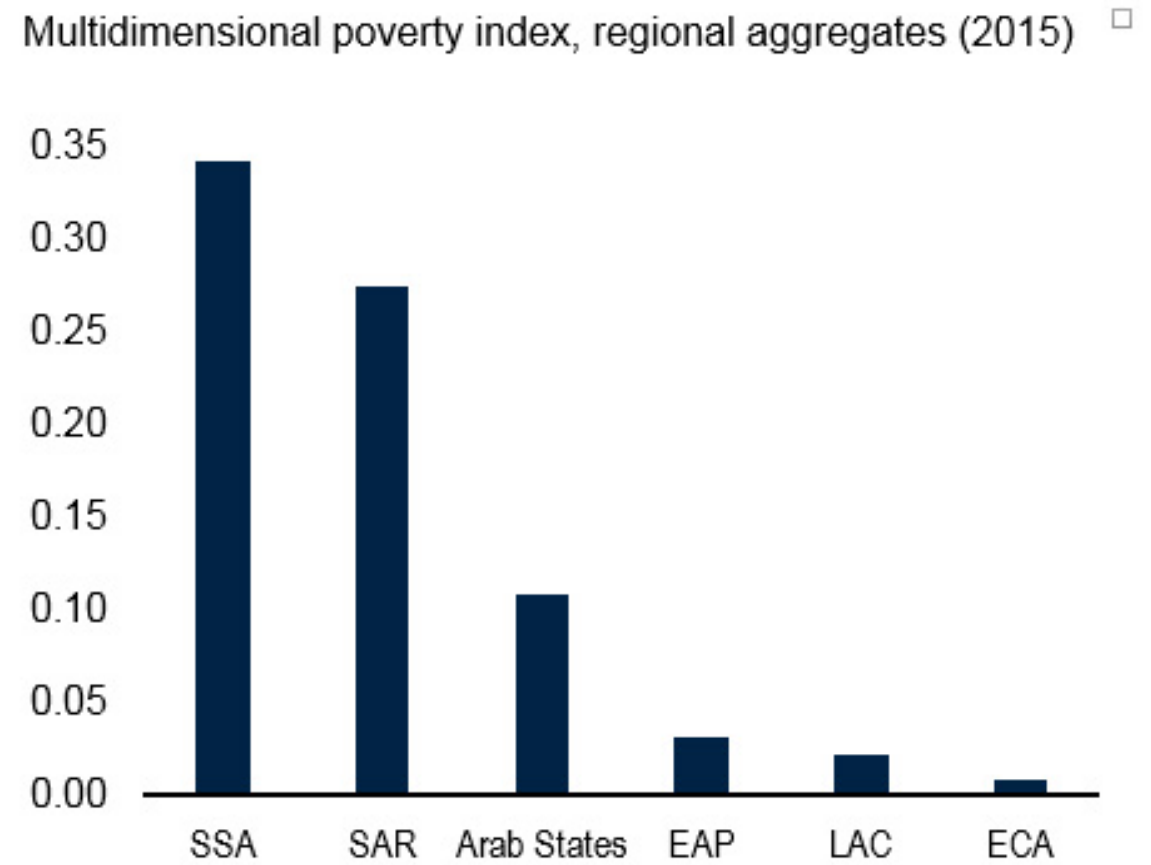
Figure 3. Most countries have recently experienced spells of shared prosperity, accompanied by reduced inequality

Number of countries, by region and type registering positive or negative B40 income growth, above or below average growth



# Breadth of Poverty

Figure 4. Sub-Saharan Africa and South Asia have the highest MPI levels



# Poverty Multidimensional

- Central aspects of both are income deprivations that restrict an individual's ability to consume certain basic goods, such as lack of access to education, health, housing, employment, personal security, and more.
- But. Close to one-fifth of all children under five remain undernourished, and some 860 million people continue to live in slums.
- Access to primary school education and literacy rates have improved, yet the quality of education remains a concern.
- Moreover, while the tide has turned on the incidence of major deadly diseases, a high number of preventable deaths persist.



# Index of Food Sustainability: Country Scores

- Food Loss and Waste, Sustainable Agriculture and Nutritional Challenges.
- FOOD LOSS AND WASTE
  - The Food Loss and Waste score is a weighted average of the indicators in the policies to respond to food loss and waste category. A higher score means that a country is on the right path to addressing food loss and waste.
- SUSTAINABLE AGRICULTURE
  - The Sustainable Agriculture score is a weighted average of the indicators in the water, land, emissions and land-users category. A higher score means that a country is on the right path to implementing a sustainable agriculture system.
- NUTRITIONAL CHALLENGES
  - The Nutritional Challenges score is a weighted average of the indicators in the health and nutrition category. A higher score means that a country is on the right path to tackling nutritional problems.



Index is Online

<https://foodsustainability.eiu.com/country-ranking/>

# Hunger

- **Hunger**
- An estimated 821 million people were undernourished in 2017.
- The majority of the world's hungry people live in developing countries, where 12.9 per cent of the population is undernourished.
- Sub-Saharan Africa remains the region with the highest prevalence of hunger, with the rate increasing from 20.7 per cent in 2014 to 23.2 per cent in 2017.
- In sub-Saharan Africa, the number of undernourished people increased from 195 million in 2014 to 237 million in 2017.
- Poor nutrition causes nearly half (45 per cent) of deaths in children under five – 3.1 million children each year.
- 149 million children under 5 years of age—22 per cent of the global under-5 population—were still chronically undernourished in 2018.

# Food Security

- **Food security**
- Agriculture is the single largest employer in the world, providing livelihoods for 45 per cent of today's global population. It is the largest source of income and jobs for poor rural households.
- 500 million small farms worldwide, most still rainfed, provide up to 80 per cent of food consumed in a large part of the developing world. Investing in smallholder women and men is an important way to increase food security and nutrition for the poorest, as well as food production for local and global markets.
- Since the 1900s, some 75 per cent of crop diversity has been lost from farmers' fields. Better use of agricultural biodiversity can contribute to more nutritious diets, enhanced livelihoods for farming communities and more resilient and sustainable farming systems.
- If women farmers had the same access to resources as men, the number of hungry in the world could be reduced by up to 150 million.
- 840 million people have no access to electricity worldwide – most of whom live in rural areas of the developing world. Energy poverty in many regions is a fundamental barrier to reducing hunger and ensuring that the world can produce enough food to meet future demand.

# Facts for Innovative Ideas: Mozambic




**45% of Humanity**  
3.1 BILLION PEOPLE LIVE IN RURAL AREAS.  
ABOUT 2.5 BILLION OF THEM MAKE THEIR  
LIVING FROM AGRICULTURE.

## SMALL FARMERS FACE RISKS

**\$4B Lost**

The amount lost by farmers in sub-Saharan Africa each year after harvesting due to insufficient processing, storage, transit etc.

**80%**

PERCENT OF  MOZAMBIicans WITH NO ACCESS TO FORMAL FINANCIAL SERVICES. Farmers are limited by high risk, high transaction costs, and lack of information.

**50% Loss**

DUE TO CLIMATE CHAGE  
Some of the most dependent farming economies face an estimated loss of over 50% of their agricultural output by 2080.

# The Need for innovation!!

- **Problem #1: Farmers need credit with flexible terms**
- **Problem #2: Farmers lack the infrastructure to link their businesses to local, regional and global markets**
- **Problem #3: No access to training services**
- **Problem #4: No real time monitoring for sustainable management of resources**



# *UN world Development Report 2019*

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**The United Nations  
World Water Development Report 2019**

# **Leaving no one behind**

**Facts and Figures**

## *Definition of Sustainable Water*

*“The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.”*

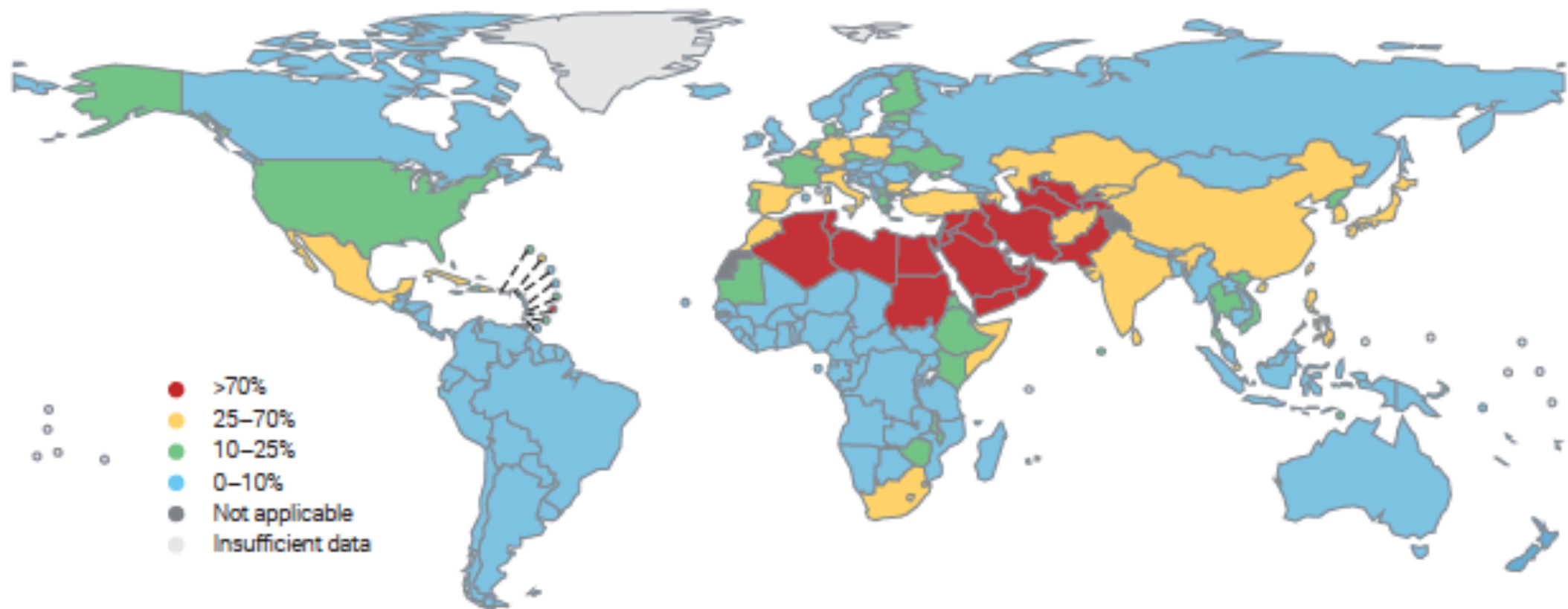




**Thirsting for a Future**



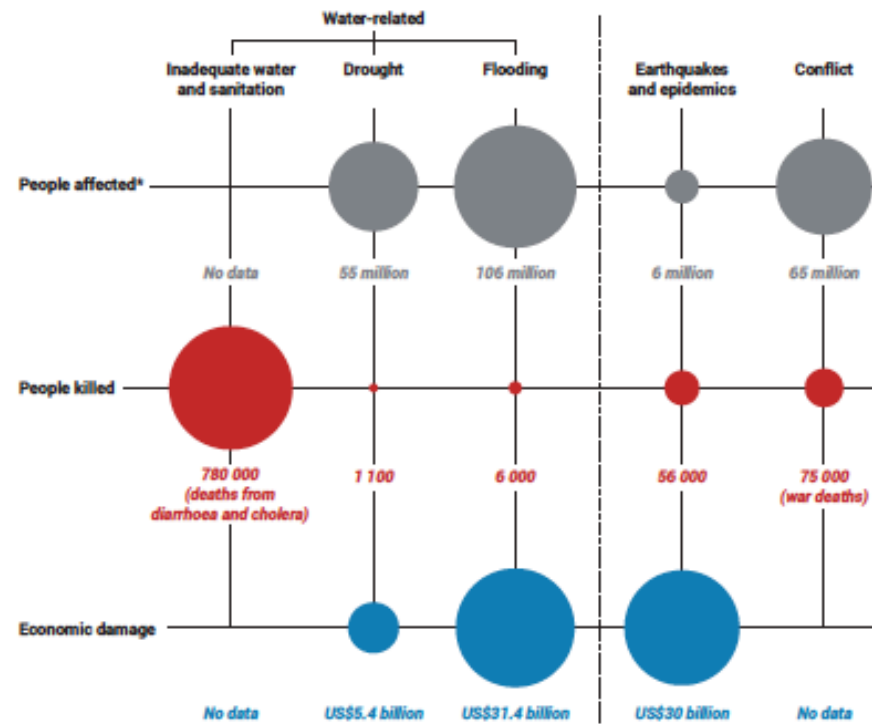
**FIGURE 1** Level of physical water stress



Source: UN (2018a, p. 72, based on data from AQUASTAT). © 2018 United Nations. Reprinted with the permission of the United Nations.

# What kills you more?

**FIGURE 2** Average annual impact from inadequate drinking water and sanitation services,<sup>3</sup> water-related disasters, epidemics and earthquakes, and conflicts



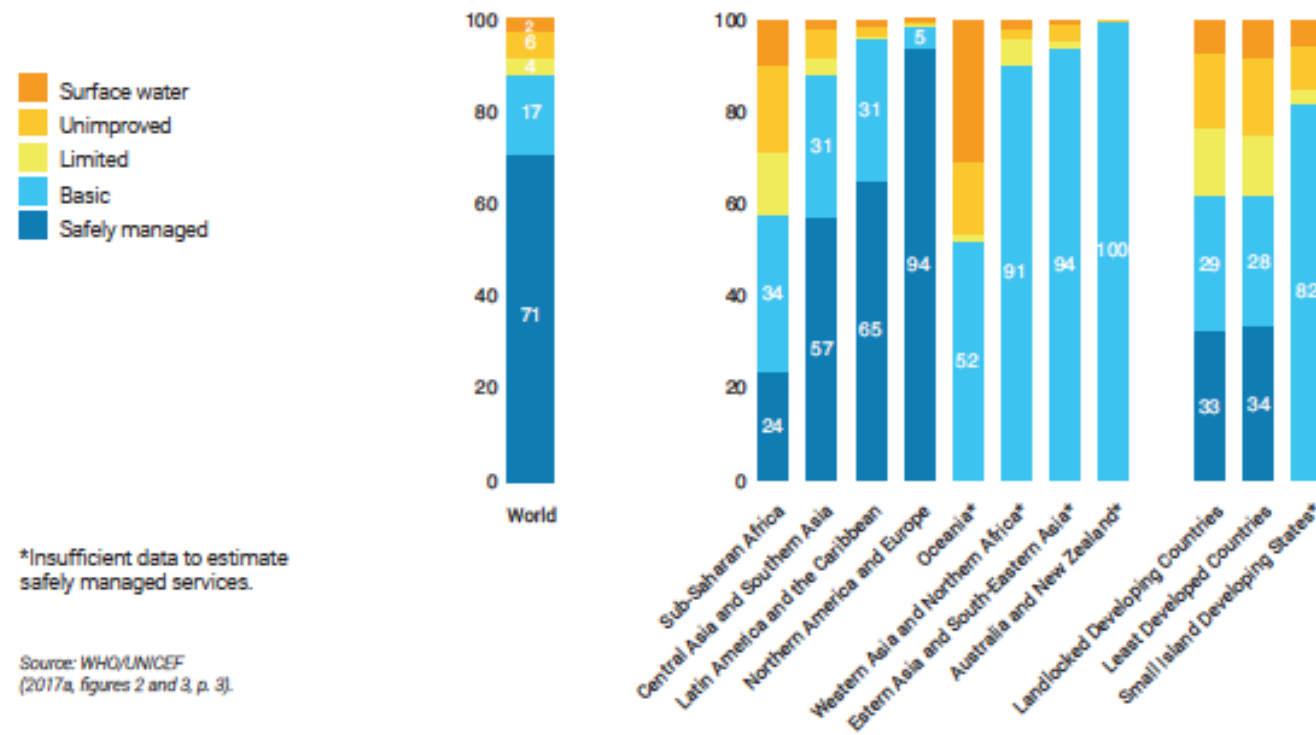
\*People affected are defined as those requiring immediate assistance during a period of emergency; this may include displaced or evacuated people.

Source: Adapted from PBL Netherlands Environmental Assessment Agency (2018, p. 14). Licensed under Creative Commons Attribution 3.0 Unported (CC BY 3.0).

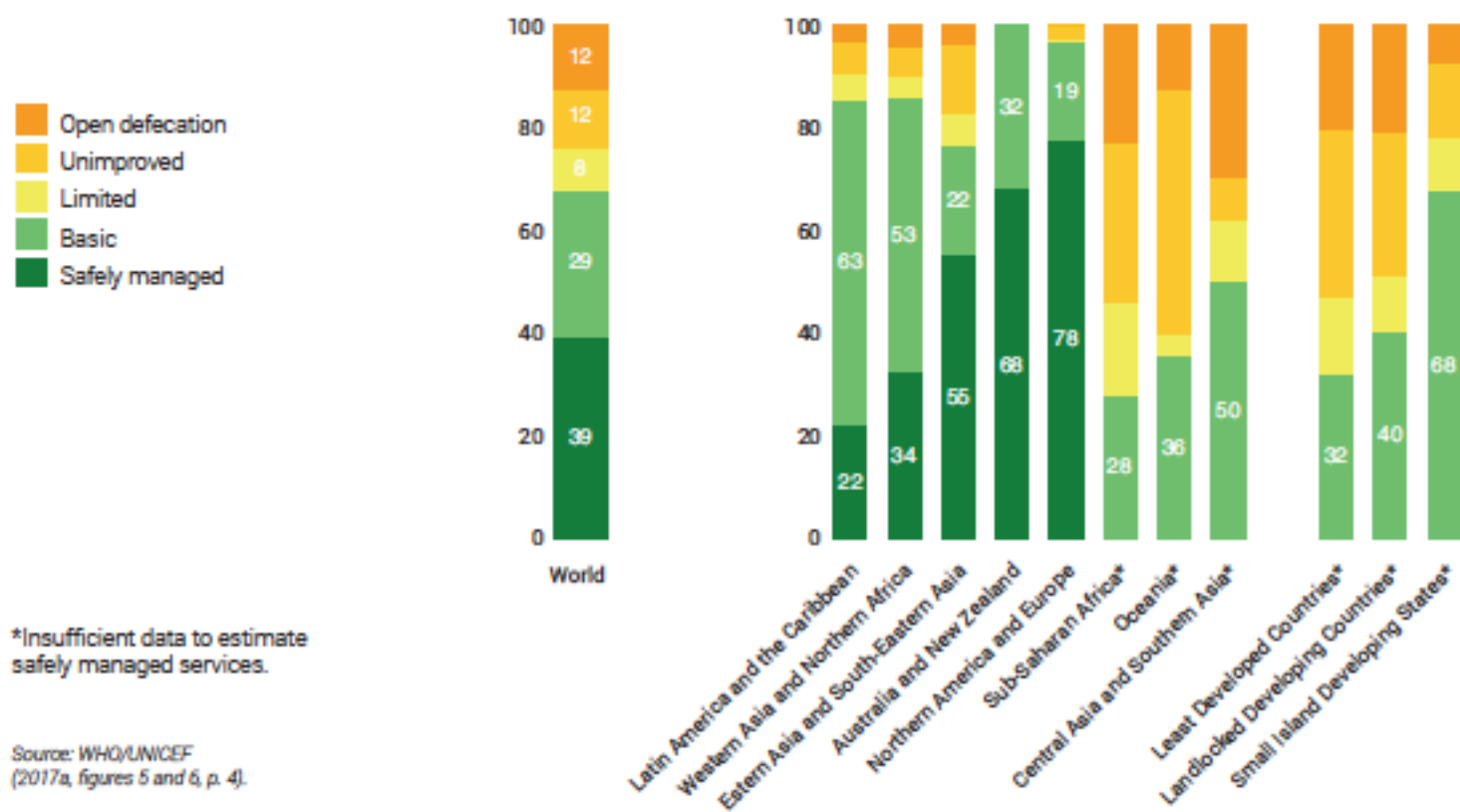
# Sanitation Crisis: Facts

- **The sanitation crisis is still massive:** 4.2 billion people still live without safely managed sanitation – more than half the global population – and 673 million people still practice open defecation. (A ‘safely managed sanitation service’ is a hygienic, private toilet that safely disposes of people’s waste).
- **Lack of sanitation is a major killer:** Inadequate sanitation is estimated to cause 432,000 diarrhea deaths every year and is a major factor in diseases such as intestinal worms, trachoma and schistosomiasis.
- **Vulnerable people bear the brunt:** The people who live without safely managed sanitation tend to face multiple forms of discrimination based on factors such as gender, race, religion, caste and economic status. These groups can be left behind as they try to access and manage sanitation services or improve their current facilities.
- **Children are some of the worst affected:** 297,000 children under five are estimated to die each year from diarrhea as a result of unsafe drinking water, sanitation, and hand hygiene.

**FIGURE 3** Global and regional drinking water coverage, 2015 (%)

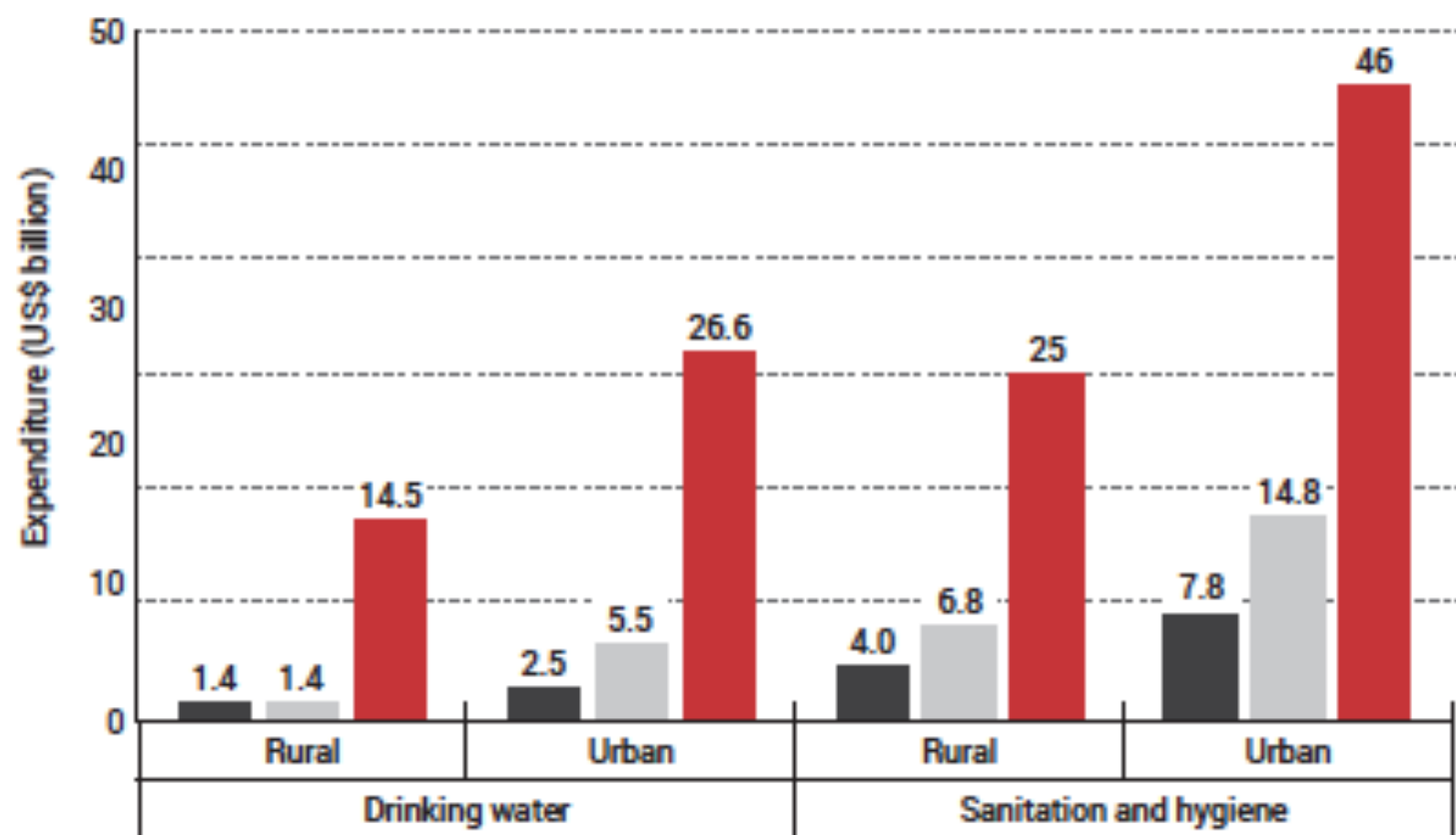


**FIGURE 4** Global and regional sanitation coverage, 2015 (%)



**FIGURE 5** Additional resources needed to meet targets for basic and safely managed WASH services

- Annual spending, 2000–2015
- Annual requirements to meet basic WASH by 2030
- Annual requirements to meet safely managed WASH by 2030



Source: World Bank/UNICEF (2017, fig. 2.5, p. 7).  
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# Innovation in Water Protection

- Lake Tahoe Total Maximum Daily Load (TMDL). The Lake Tahoe TMDL is a science-based plan initiated to better understand the causes of clarity loss, determine how much pollution needs to be reduced to reinstate historic clarity levels, and develop a workable, cost-effective implementation strategy (227 Indicators!)



# Most Polluted Waters in the World





# Dhaka, Bangladesh





# Guatemala





# Mumbai





# Wenzou



# Greenland





# Gladstone, US



# Philosophy Lesson of Day: Hunger is a Very Old Issue

- “And it will often happen that a man with wealth in the form of coined money will not have enough to eat; and what a ridiculous kind of wealth is that which even in abundance will not save you from dying with hunger!”

Aristotle, Politics, 384-322b.c.