



Economics of the climate crisis

George Anjaparidze

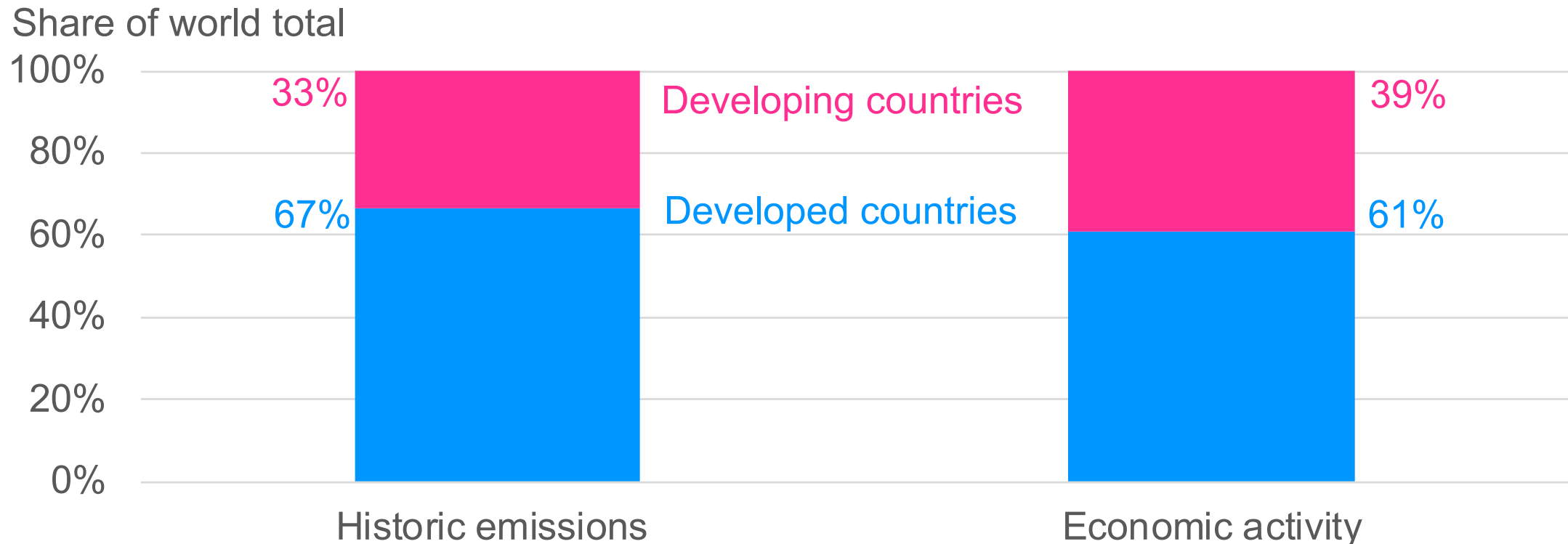
CEO, Veritas Global - www.veritasglobal.ch

19 September 2019

Key points

- Gap between collective ambition and individual actions: need 4x to 5x more action by 2030
- Scale-up in climate finance is the key: immediate 3x increase by 2020, additional \$60 bn
- Adaptation is a rising challenge with increasing needs
- Climate impacts further threaten stability and human security

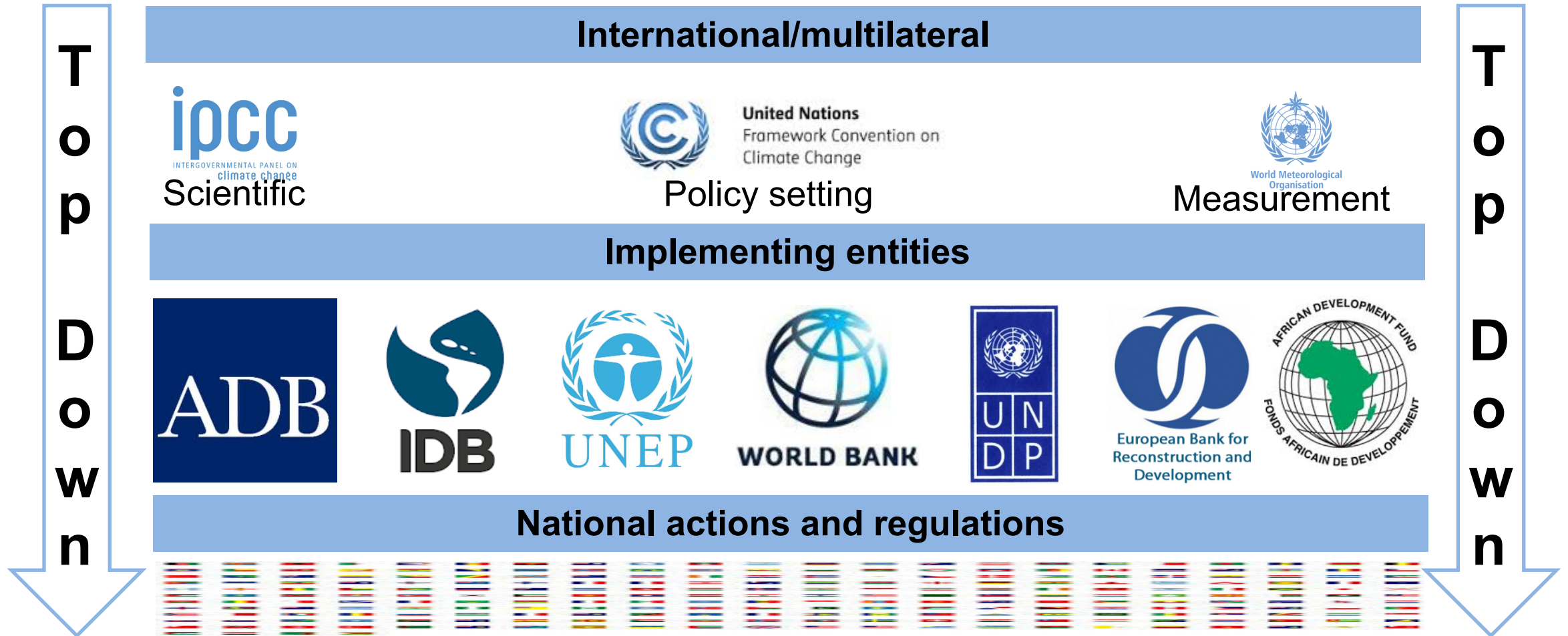
Climate change is a global challenge, developed countries take the lead



Sources: Veritas Global using data on historical emissions from Global Carbon Project, Carbon Dioxide Information Analysis Centre, Our World in Data; economic activity data sourced from IMF based on gross domestic product using current market prices.

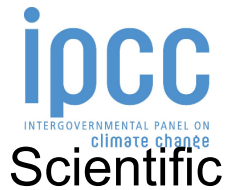
Note: Estimates are based on cumulative carbon dioxide emissions produced from fossil fuels and cement since 1751.

Post 1997 (Kyoto) a top down framework was adopted



Post 2009 a bottom up framework started to emerge

International/multilateral



United Nations
Framework Convention on
Climate Change

Policy Coordination



World Meteorological
Organisation

Measurement

Implementing entities



GREEN
CLIMATE
FUND



WORLD BANK



European Bank for
Reconstruction and
Development



National actions and regulations



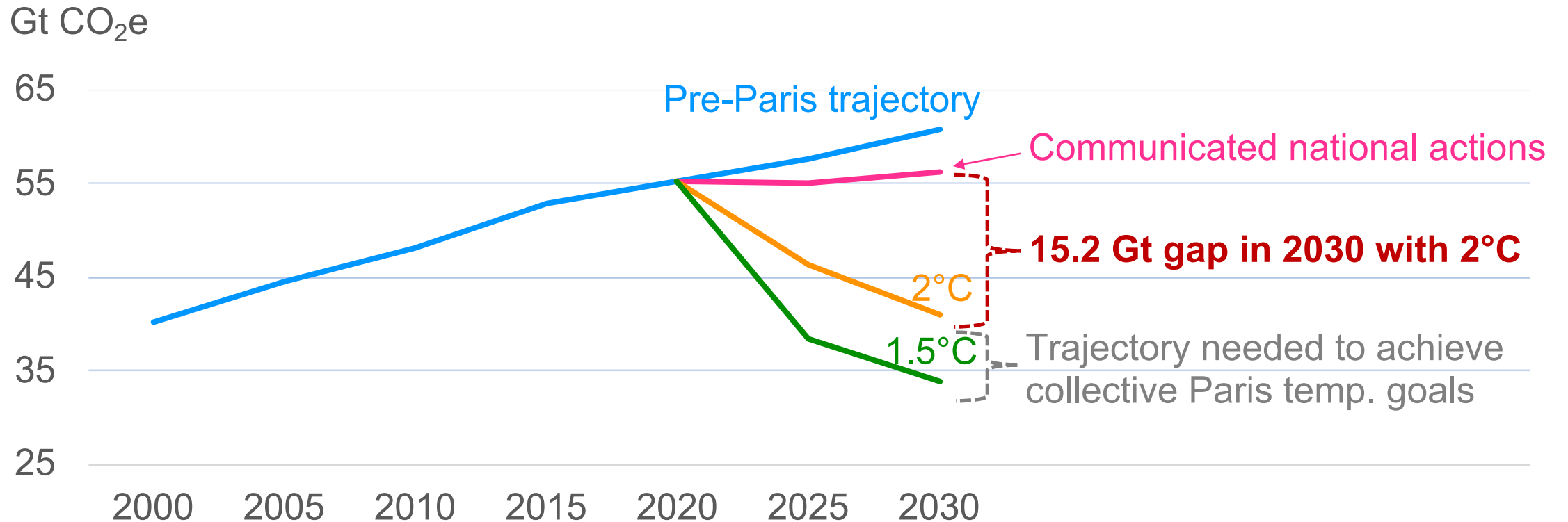
B
o
t
t
o
m

U
p

B
o
t
t
o
m

U
p

Inconvenient gap between ambition and reality: 4x to 5x increase needed

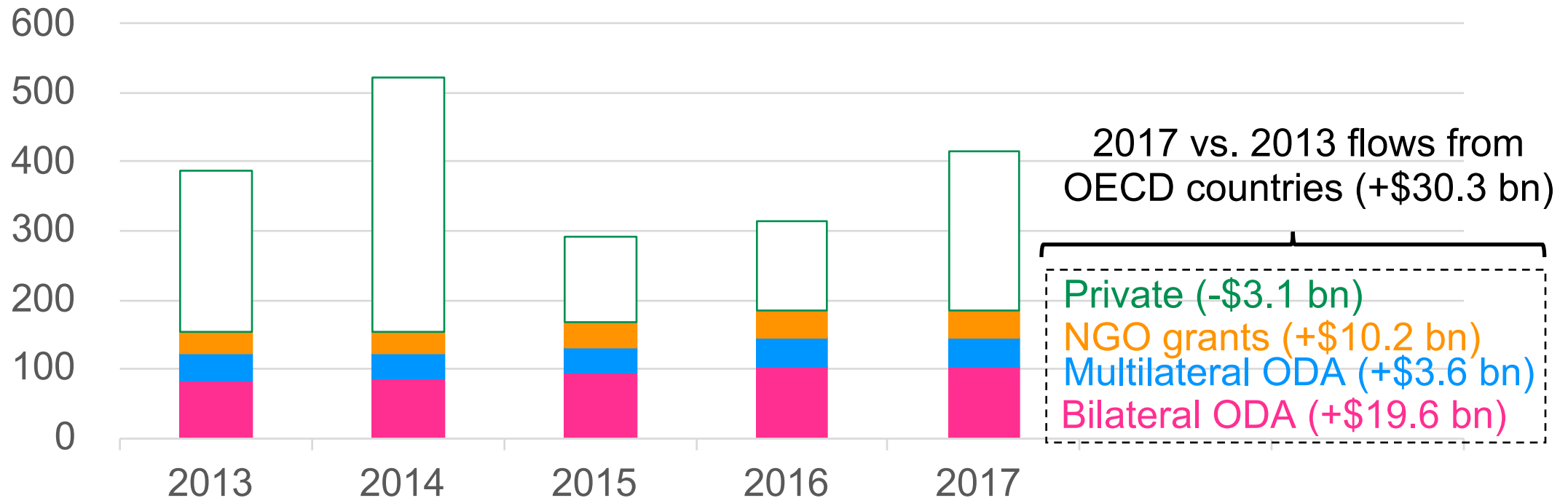


Source: Veritas Global using data sourced from UNFCCC

Notes: To illustrate the emission trajectory, a straight line extrapolation of emissions is presented between each of the available data points. Emission scenarios are based on central scenarios selected by UNFCCC, which sometimes represents an aggregation of scenarios from IPCC AR5. Pre-NDC scenario includes international bunkers.

Scale-up in finance needed, immediate 3x increase by 2020

Net financial flows from OECD, billions \$2016 (not only climate finance)

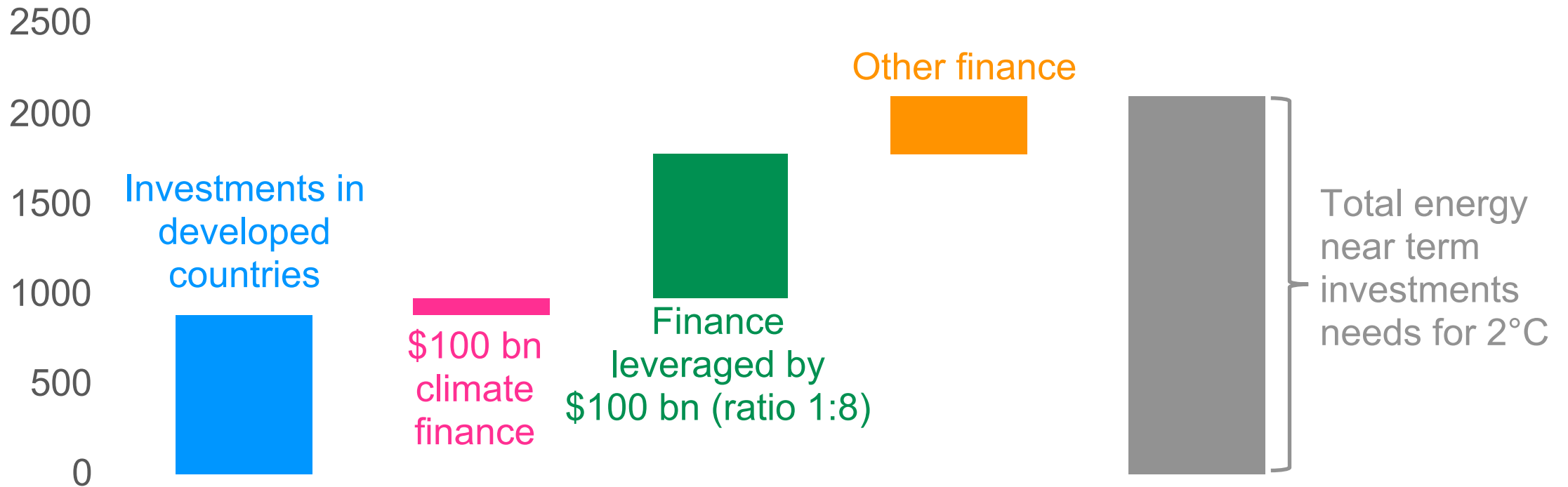


Source: Veritas Global using data from OECD DAC

Note: Figures are in 2016 \$ using total DAC deflator, excludes export credits and other official flows

\$100 bn can crowd-in and leverage needed investment

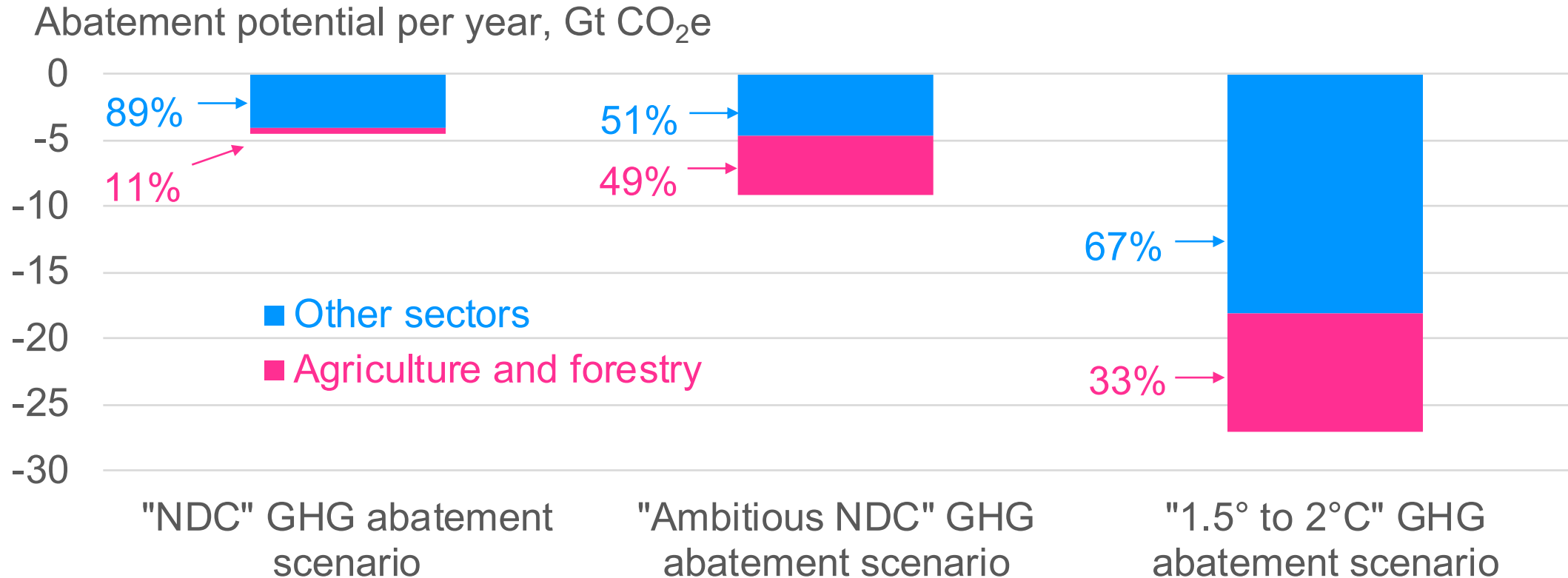
Annual investment, billions \$2016



Source: Veritas Global using data from IEA World Energy Investment 2019, McCollum 2018 Energy investment needs for fulfilling the Paris Agreement.

Note: Share of developed country investments estimated using investment in high income countries presented in IEA WEI 2019, leverage ratio based on Independent Evaluation Office of GEF 2017

Next wave of opportunity is in agriculture and forestry

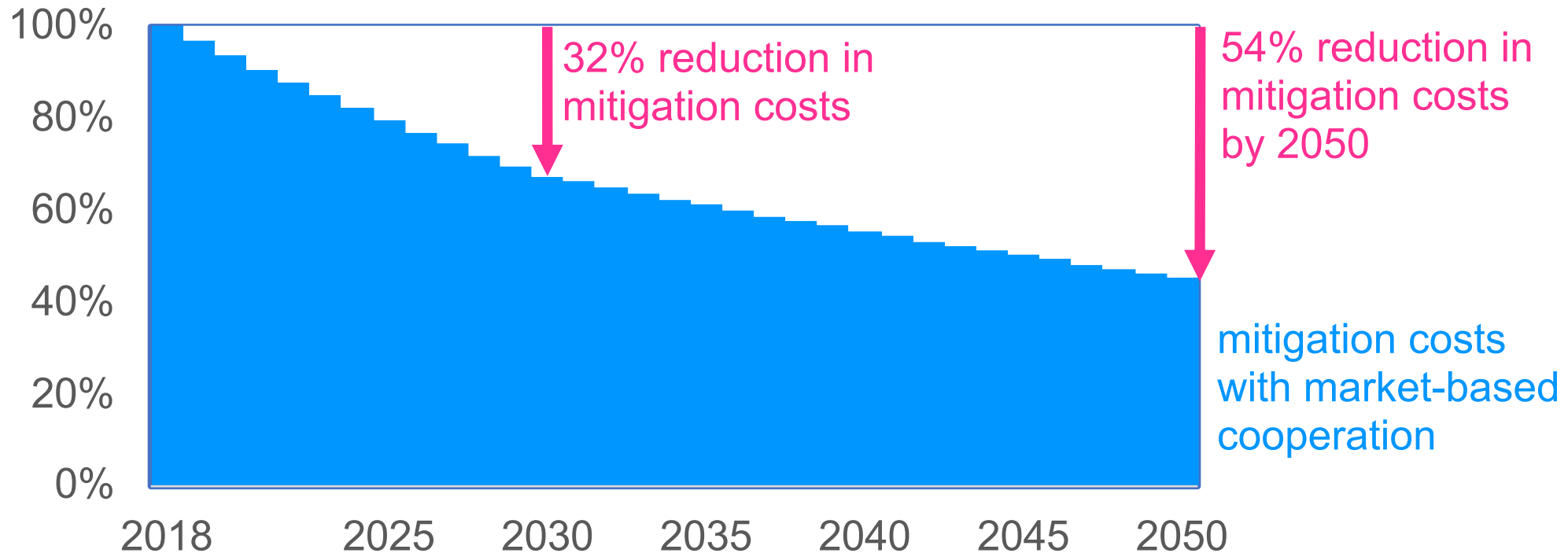


Source: Veritas Global using data from McKinsey marginal abatement cost curve version 2.1

Notes: "NDC" and "Ambitious NDC" GHG abatement scenarios assume achievement of GHG emission target based on implementing 40% of all cost-effective measures. "1.5° to 2°C" GHG abatement scenario assumes 72% implementation of all cost-effective measures

Carbon crediting mechanisms are part of the answer

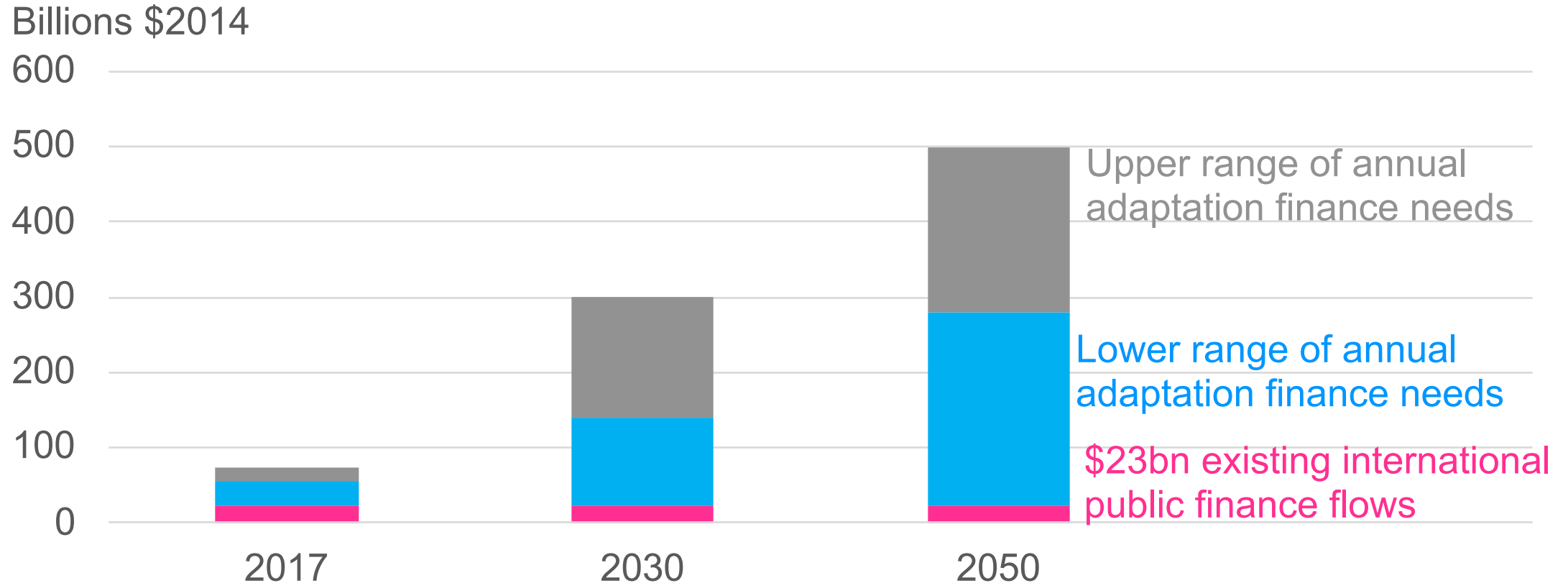
Share of costs with no international collaboration



Source: Veritas Global based on data presented by World Bank State and Trends of Carbon Pricing reports 2016/18

Note: Cost saving through international collaboration extrapolated using constant rate from 2018 actuals to 2030 and 2050 forecasts

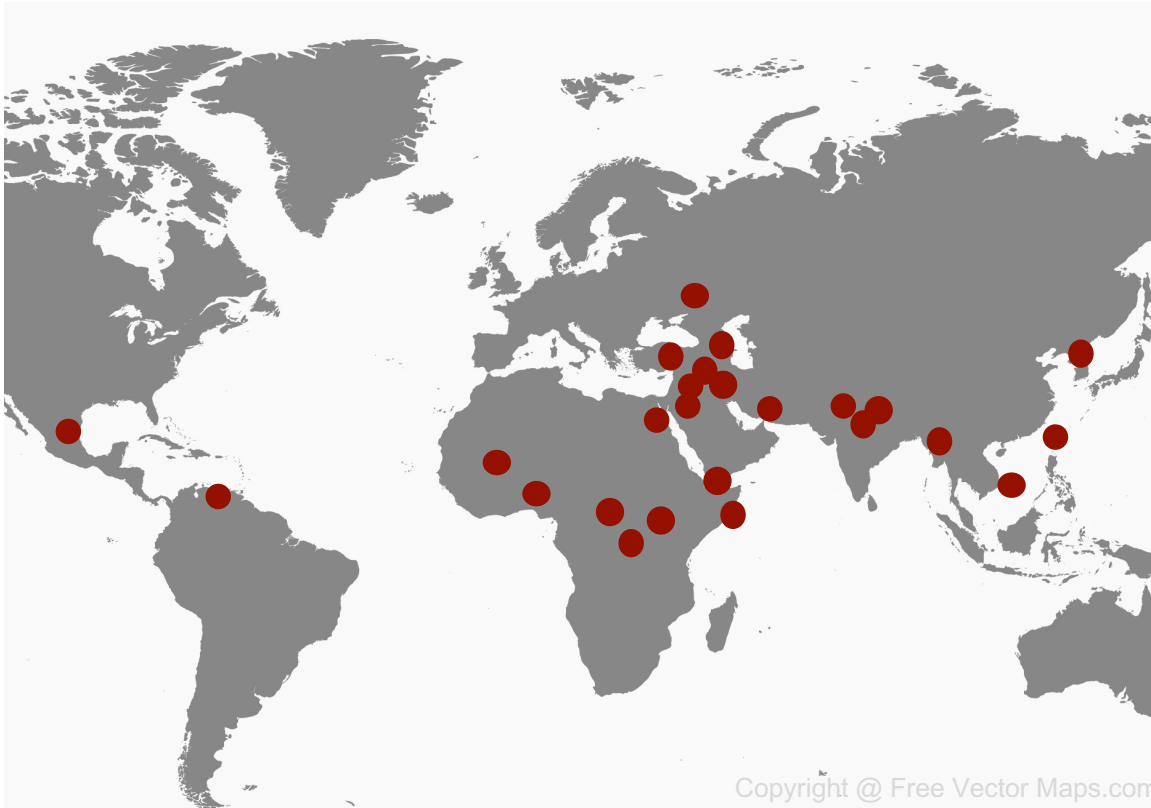
Adaptation – a rising challenge with increasing needs



Source: The Adaptation Gap Finance Report 2016; CPI Global Landscape of Climate Finance 2018

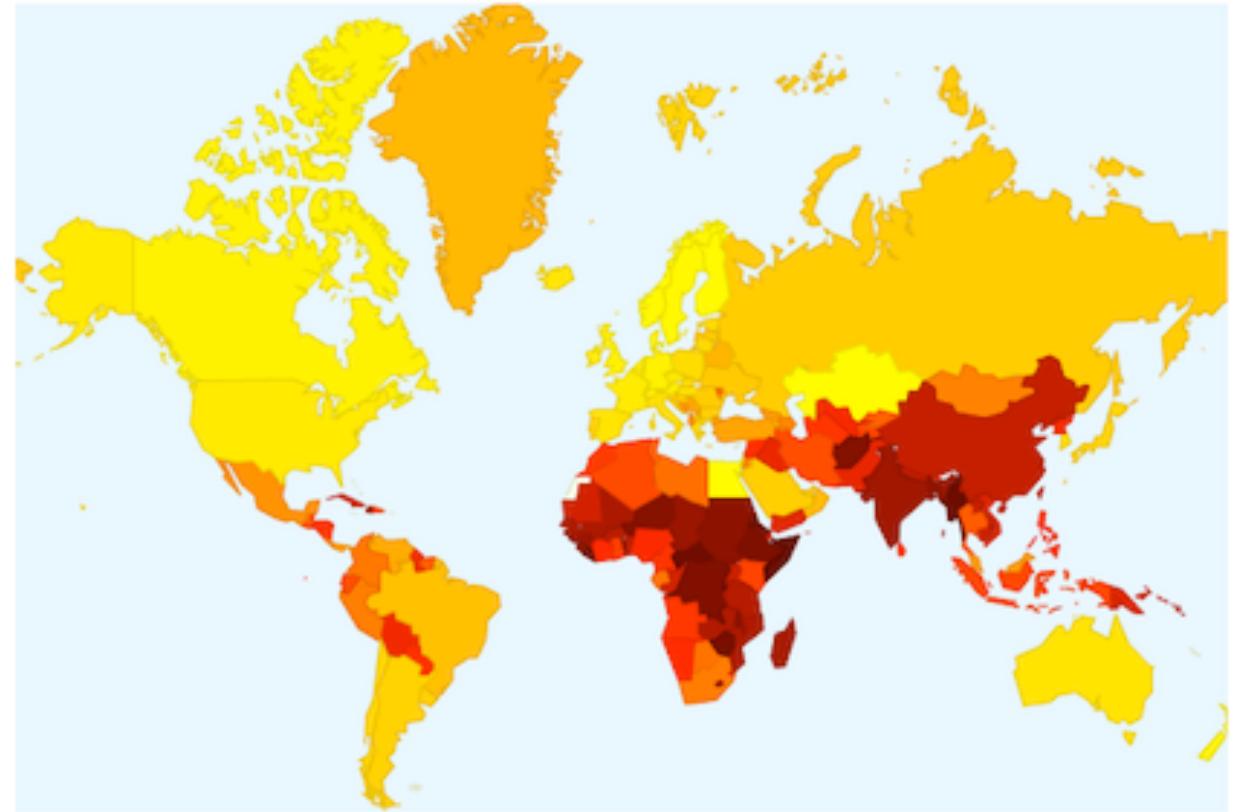
Climate impacts further threaten security and stability


Conflicts impacting US and Western interests



Source: Veritas Global using data from Council on Foreign Relations

Vulnerability to impacts of climate change



Rank 1  169 Source: Center for Global Development

Key points

- Gap between collective ambition and individual actions: need 4x to 5x more action by 2030
- Scale-up in climate finance is the key: immediate 3x increase by 2020, additional \$60 bn
- Adaptation is a rising challenge with increasing needs
- Climate impacts further threaten stability and human security