

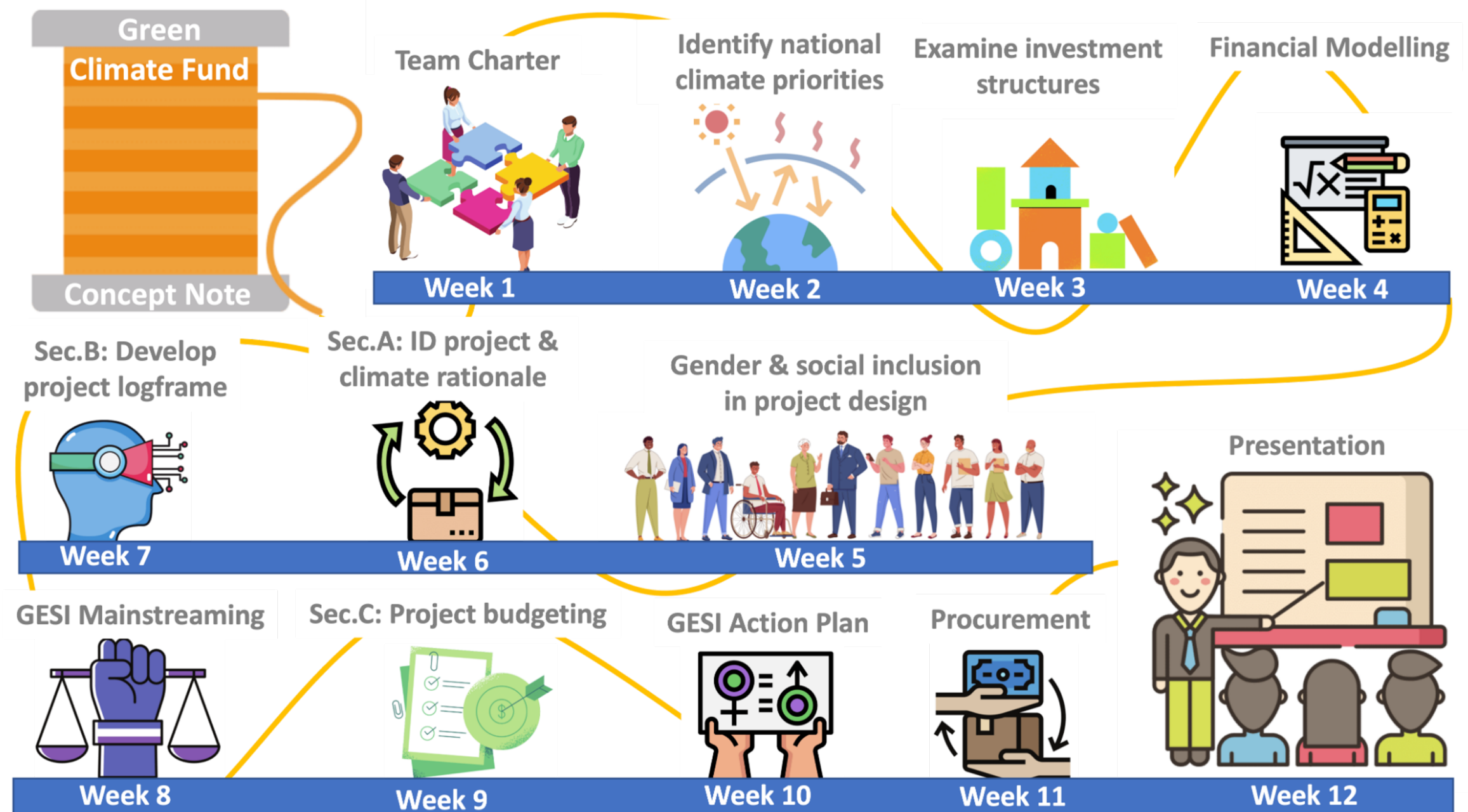


The Southern Africa
Climate Finance Partnership

DESIGNING CLIMATE FINANCE SOLUTIONS IN A SHIFTING INVESTMENT LANDSCAPE

A toolbox for innovative practitioners

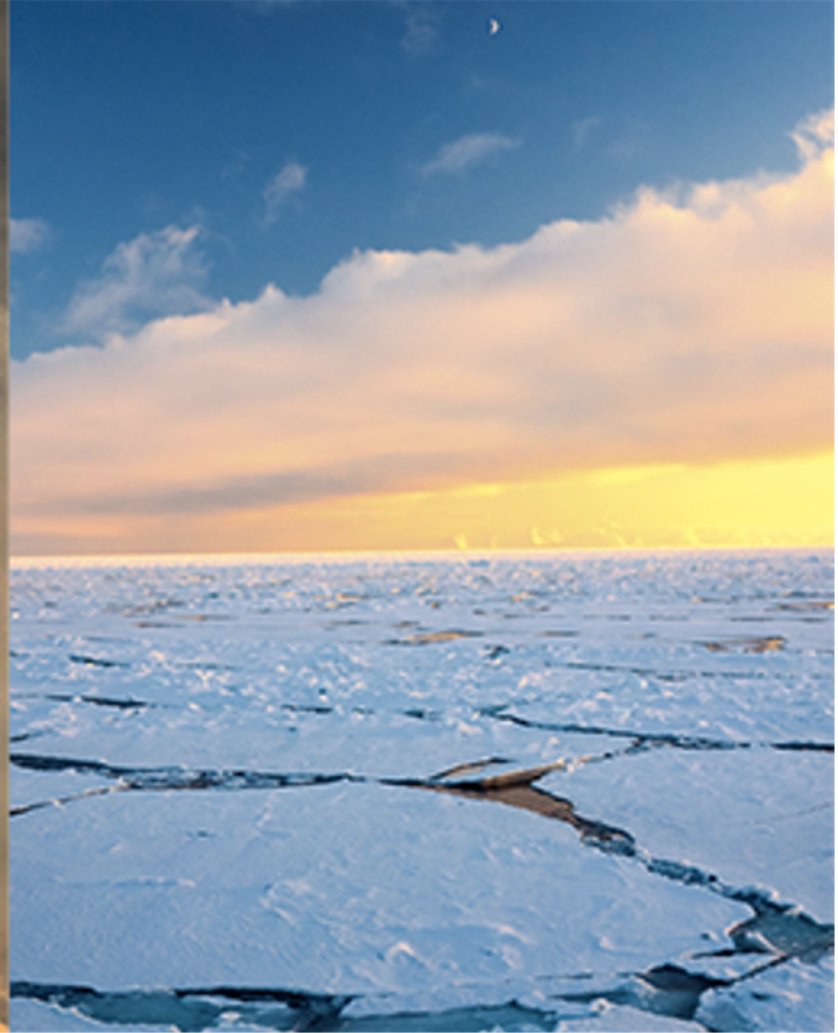
Golden Thread: Developing a GCF Concept Note



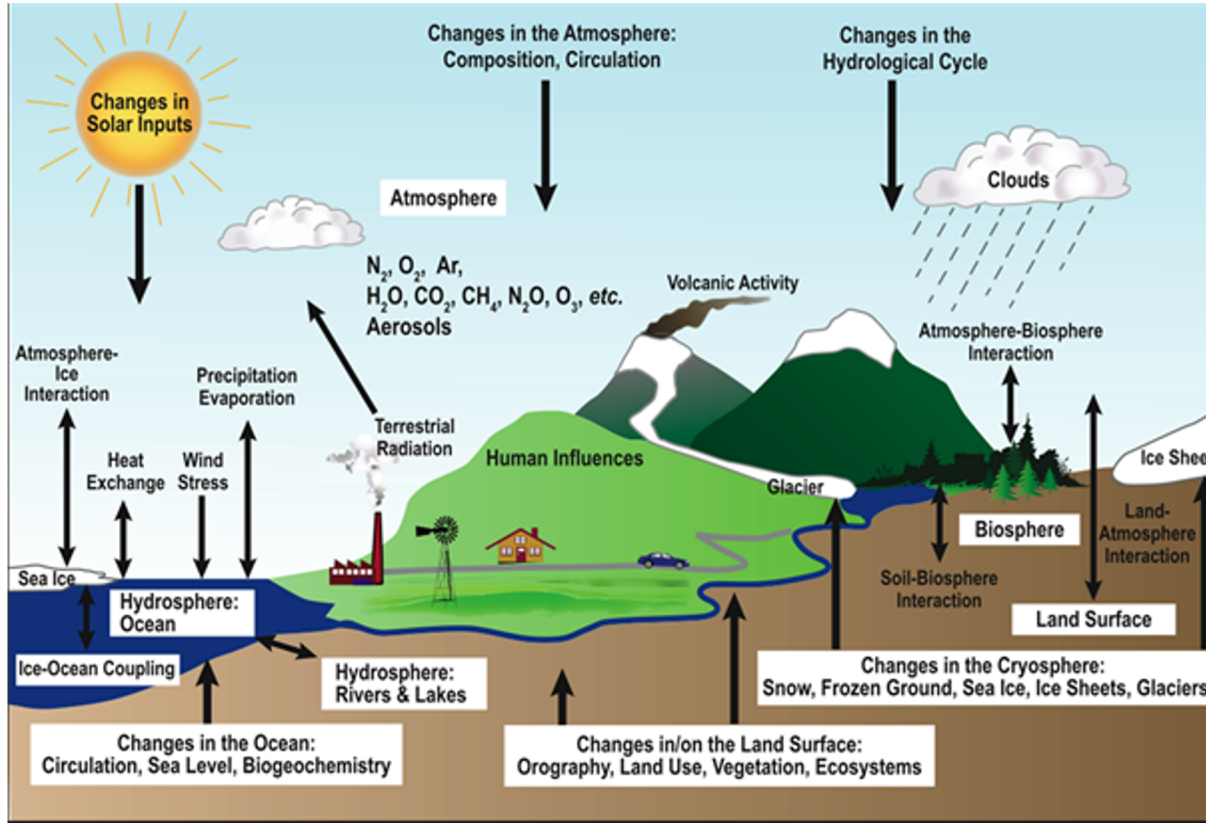
Lecture Session Format

10h00 - 10h10	Welcome
10h10 - 11h00	An Introduction to Climate Change and Climate Finance. Group photo.
11h00 - 11h25	Group Work Exercise
11h25 - 11h55	Plenary Feedback
11h55 - 12h00	Close, Feedback Forms and Next Steps

Introduction



Climate Models



$$\frac{\partial u}{\partial t} = \eta v - \frac{\partial \Phi}{\partial x} - c_p \theta \frac{\partial \pi}{\partial x} - z \frac{\partial u}{\partial \sigma} - \frac{\partial \left(\frac{u^2 + v^2}{2} \right)}{\partial x}$$

$$\frac{\partial v}{\partial t} = -\eta \frac{u}{v} - \frac{\partial \Phi}{\partial y} - c_p \theta \frac{\partial \pi}{\partial y} - z \frac{\partial v}{\partial \sigma} - \frac{\partial \left(\frac{u^2 + v^2}{2} \right)}{\partial y}$$

$$\frac{\delta T}{\delta t} = \frac{\partial T}{\partial t} + u \frac{\partial T}{\partial x} + v \frac{\partial T}{\partial y} + w \frac{\partial T}{\partial z}$$

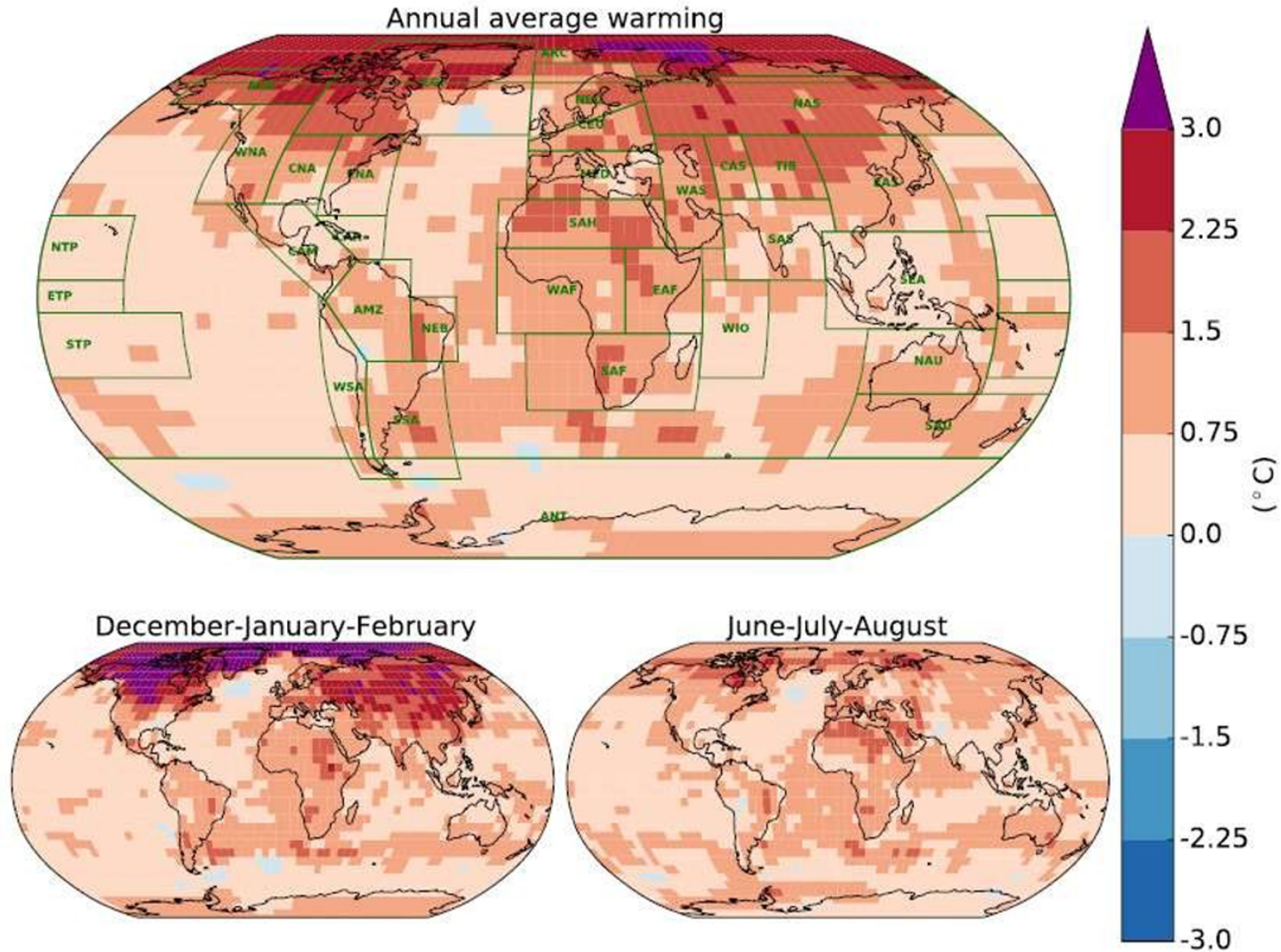
$$\frac{\delta W}{\delta t} = u \frac{\partial W}{\partial x} + v \frac{\partial W}{\partial y} + w \frac{\partial W}{\partial z}$$

$$\frac{\partial}{\partial t} \frac{\partial p}{\partial \sigma} = u \frac{\partial}{\partial x} x \frac{\partial p}{\partial \sigma} + v \frac{\partial}{\partial y} y \frac{\partial p}{\partial \sigma} + w \frac{\partial}{\partial z} z \frac{\partial p}{\partial \sigma}$$

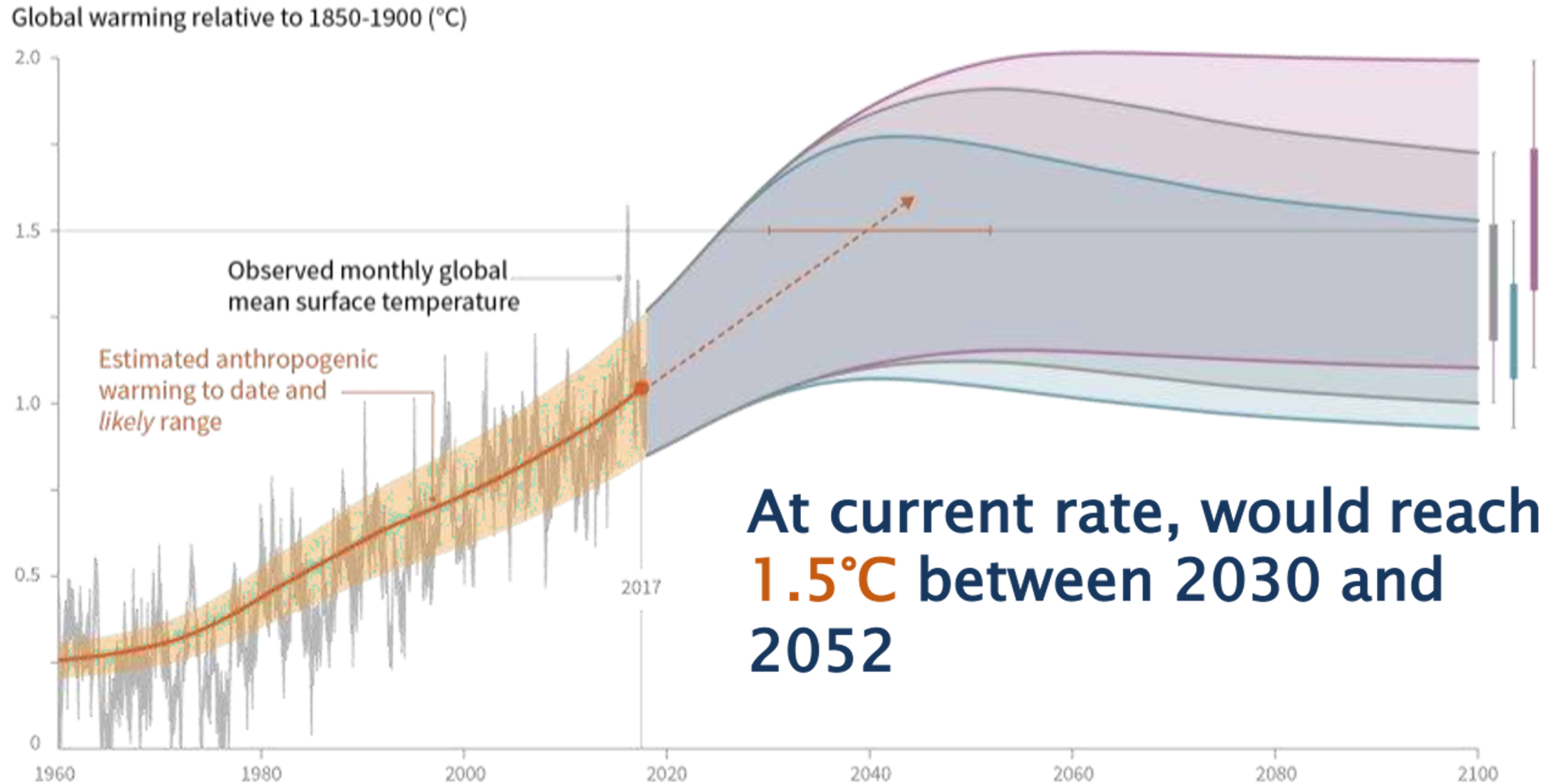
“Numerical models (General Circulation Models or GCMs), representing physical processes in the atmosphere, ocean, cryosphere and land surface, are the most advanced tools currently available for simulating the response of the global climate system to increasing greenhouse gas concentrations.”

Current Climate Change

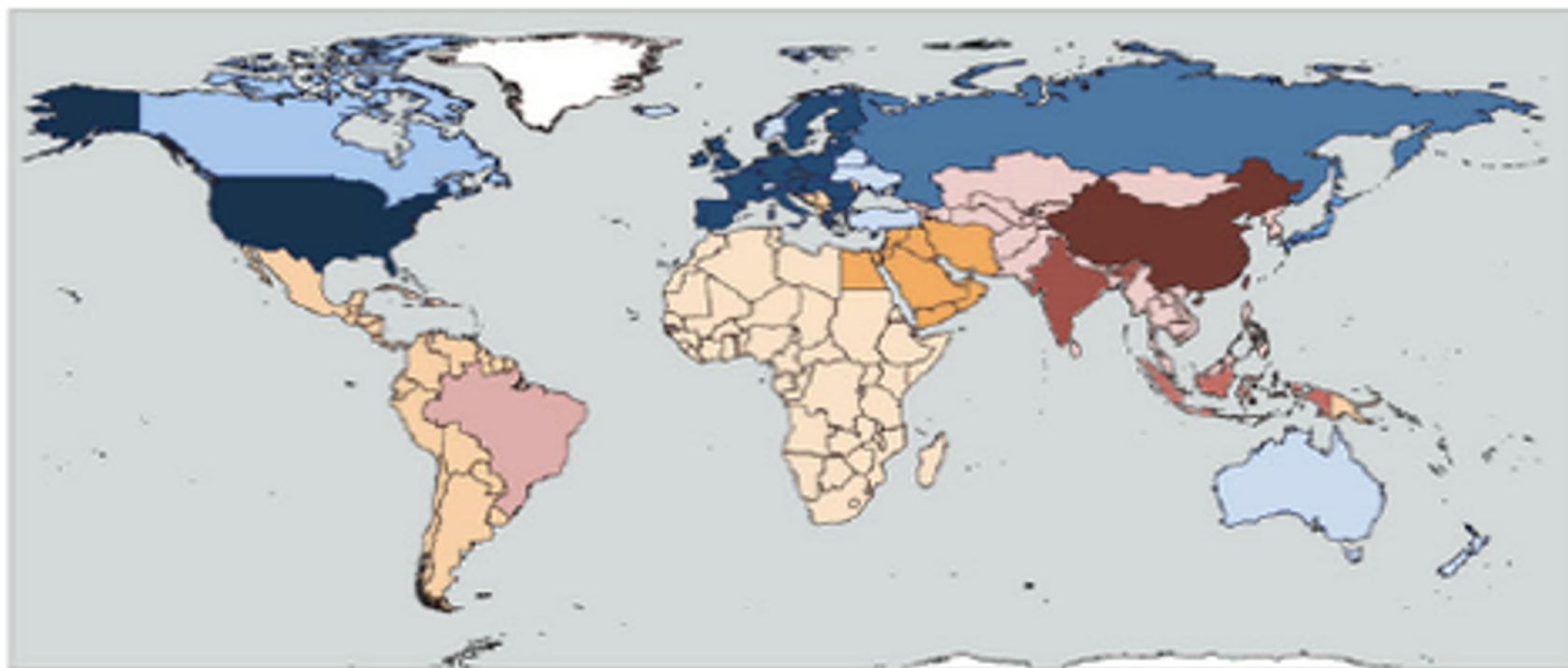
Regional warming in the decade 2006-2015 relative to preindustrial



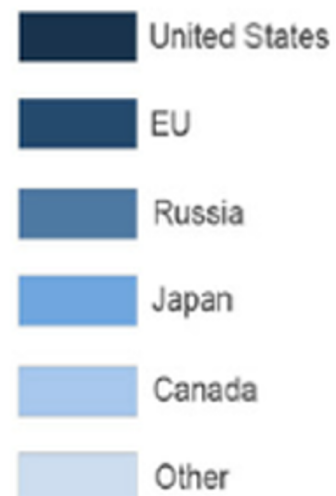
Climate change projections



Historical Emissions



Annex 1

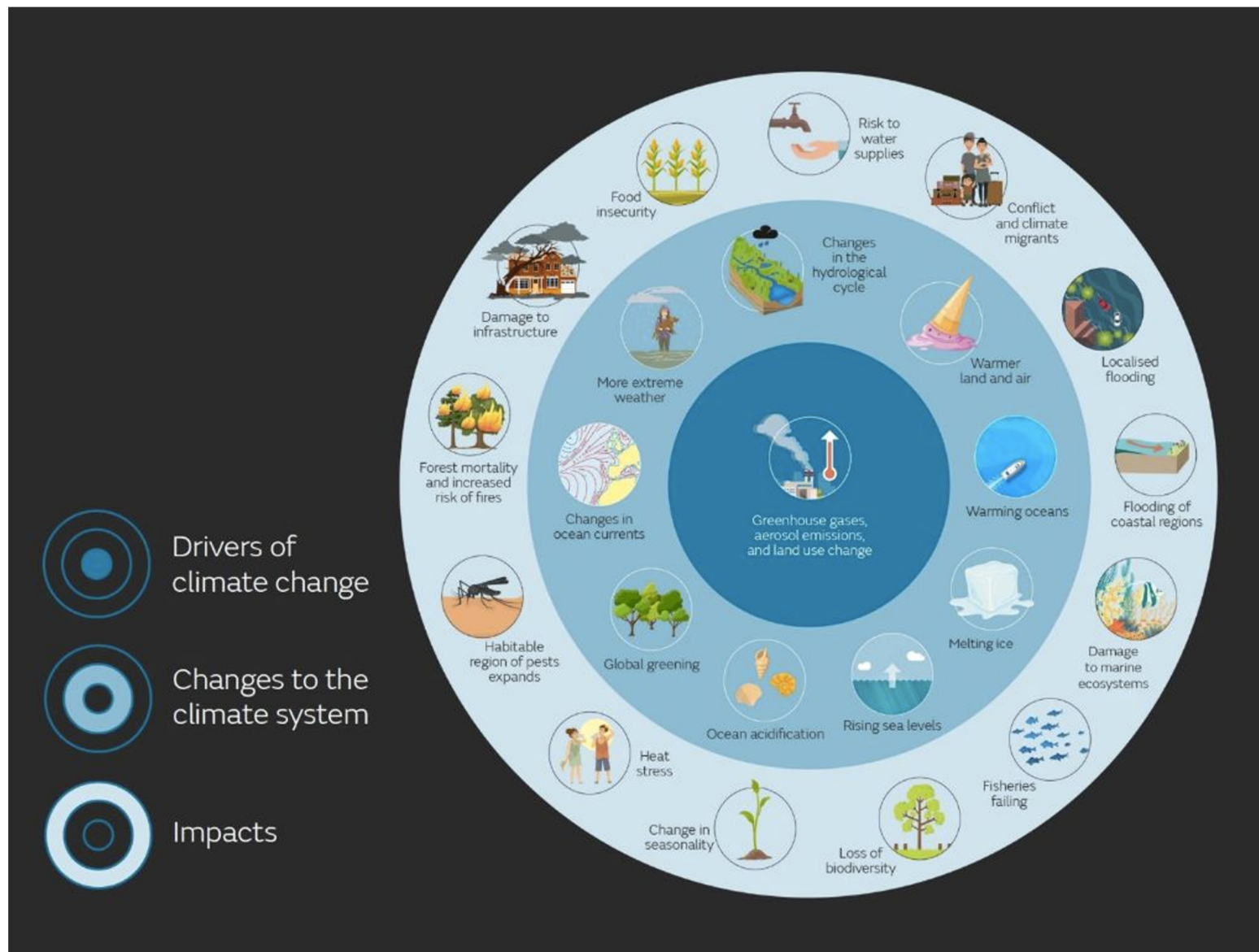


Non-Annex 1

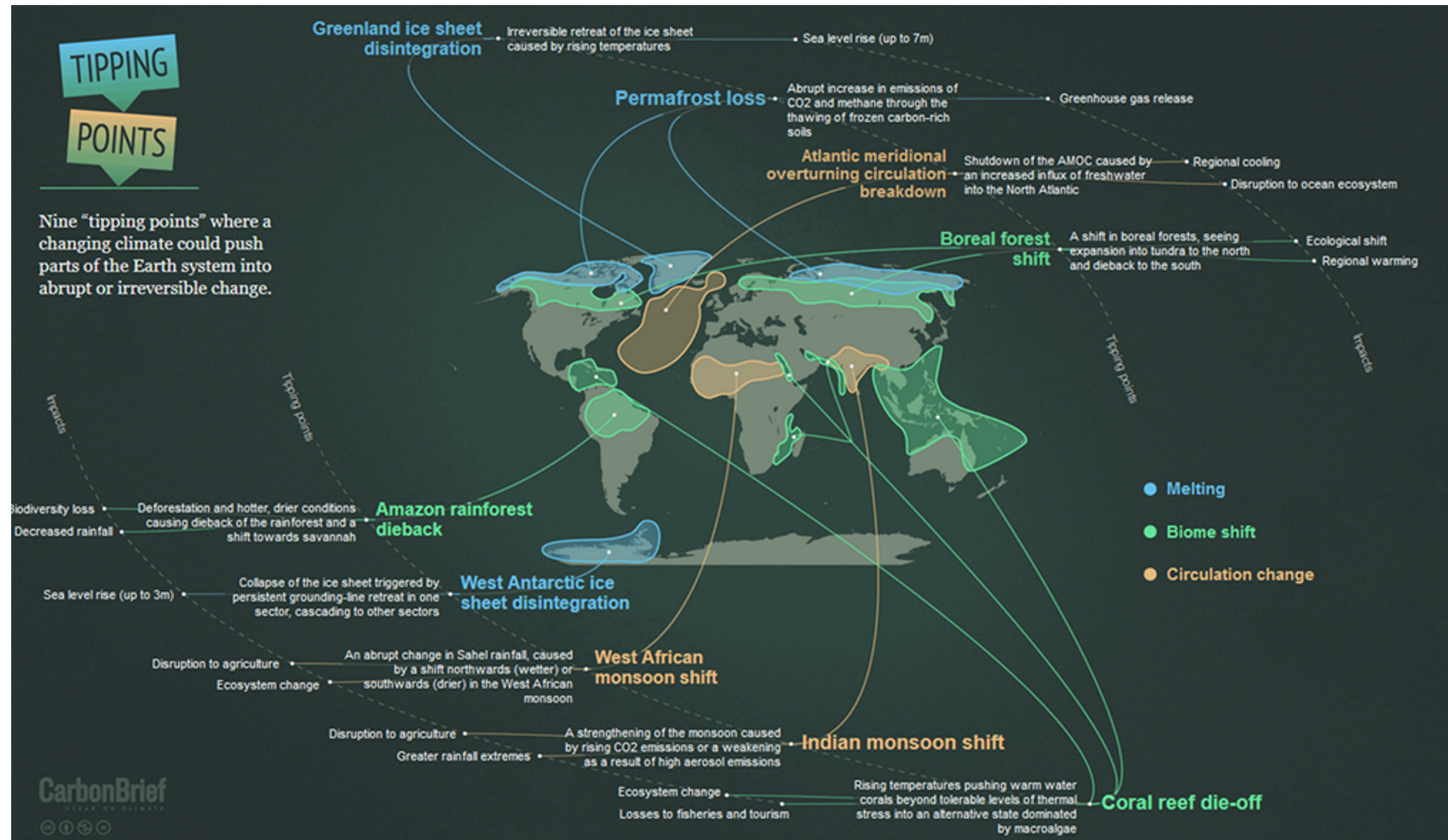


Historical contribution of GHGs

Drivers and Impacts of Climate Change

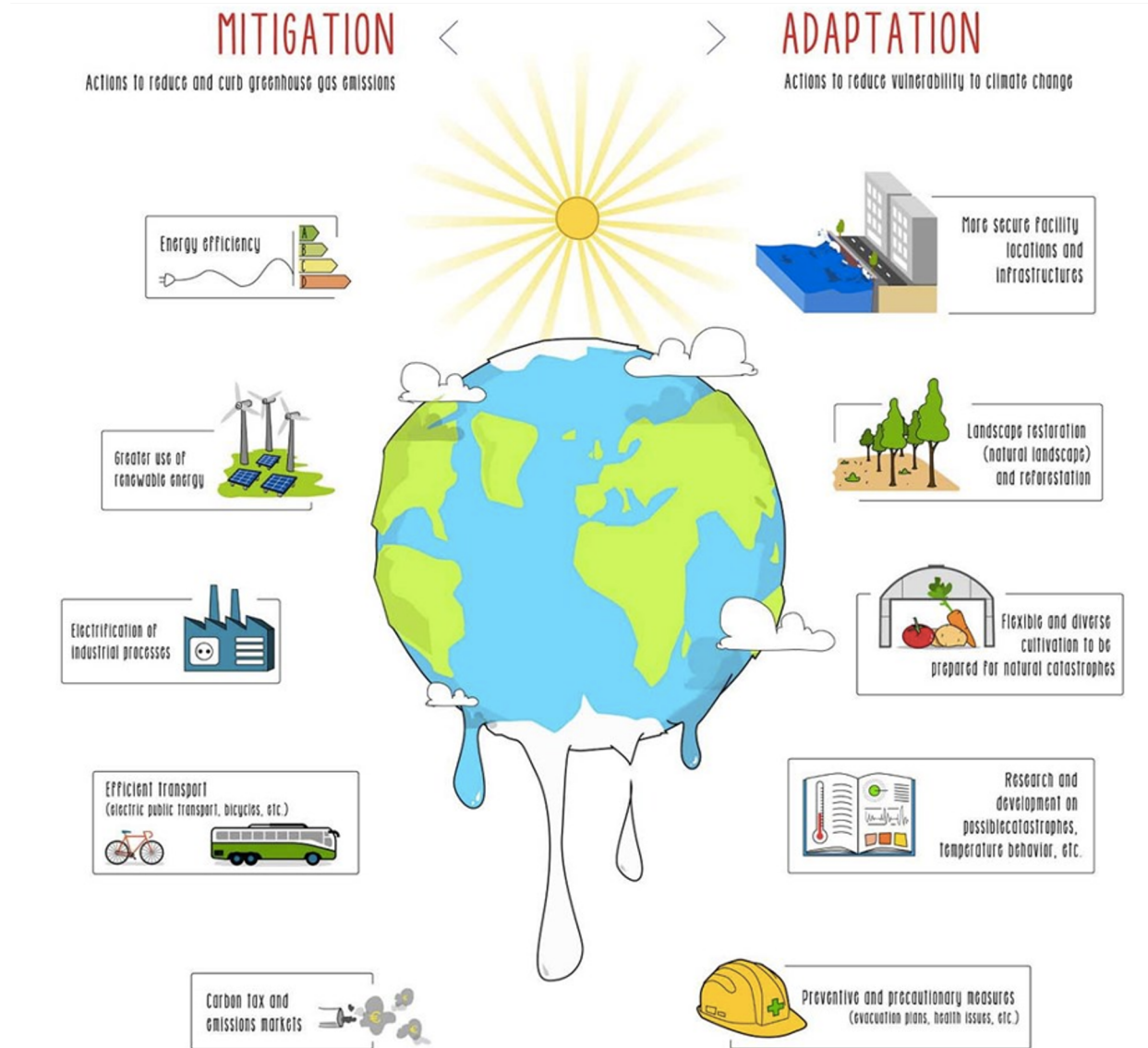


Tipping Points



Carbon Brief (2020).

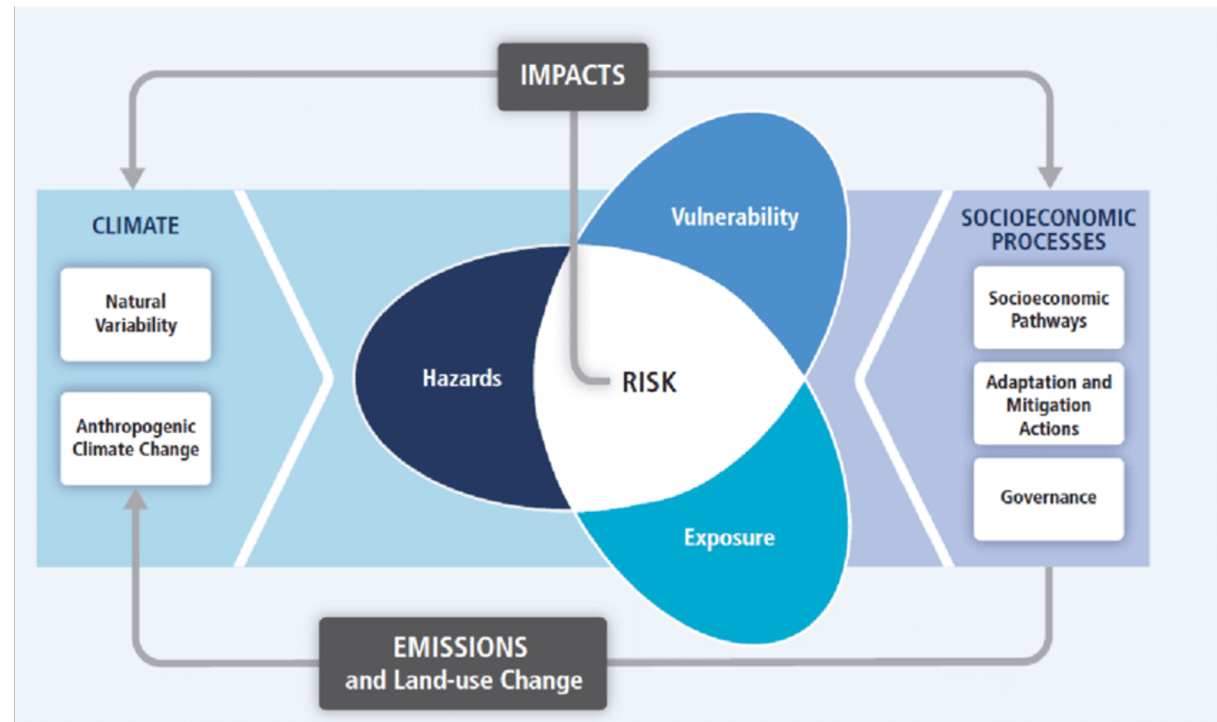
Mitigation vs. Adaptation



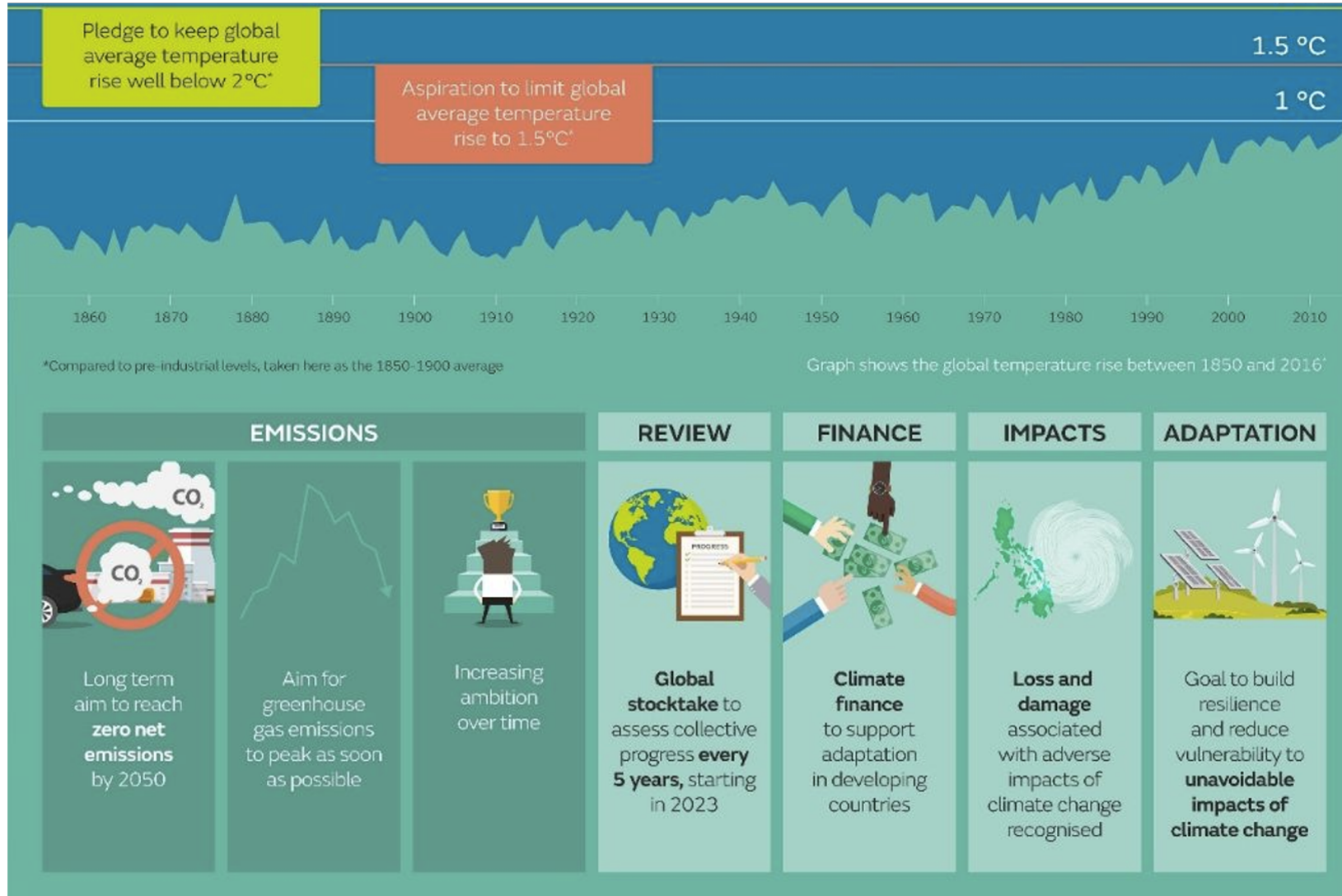
Vulnerability

“The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity”:(UNFCCC, 2022). Vulnerability is a function of three factors:

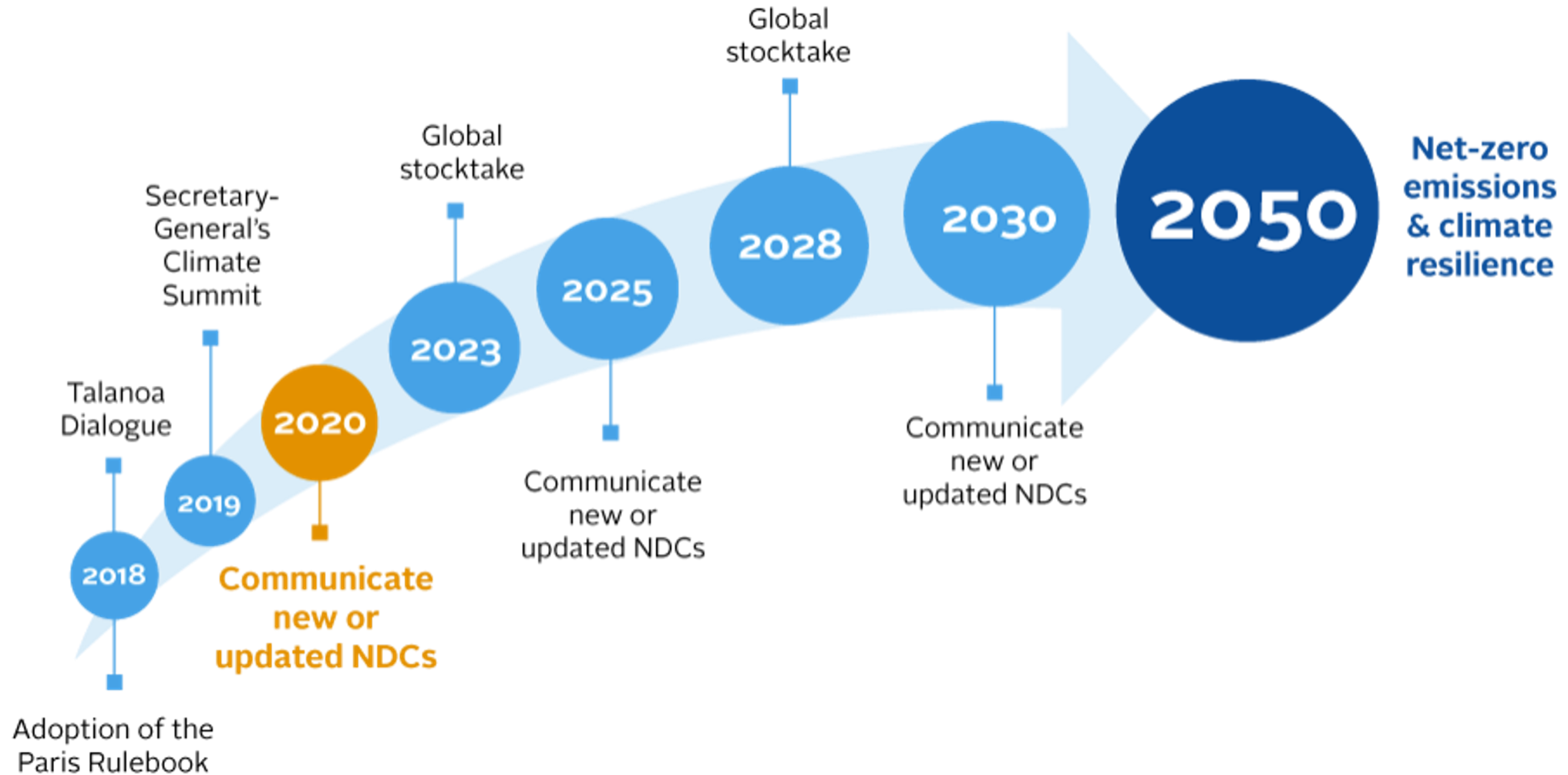
- Exposure
- Sensitivity
- Adaptive capacity



Management of Climate Change

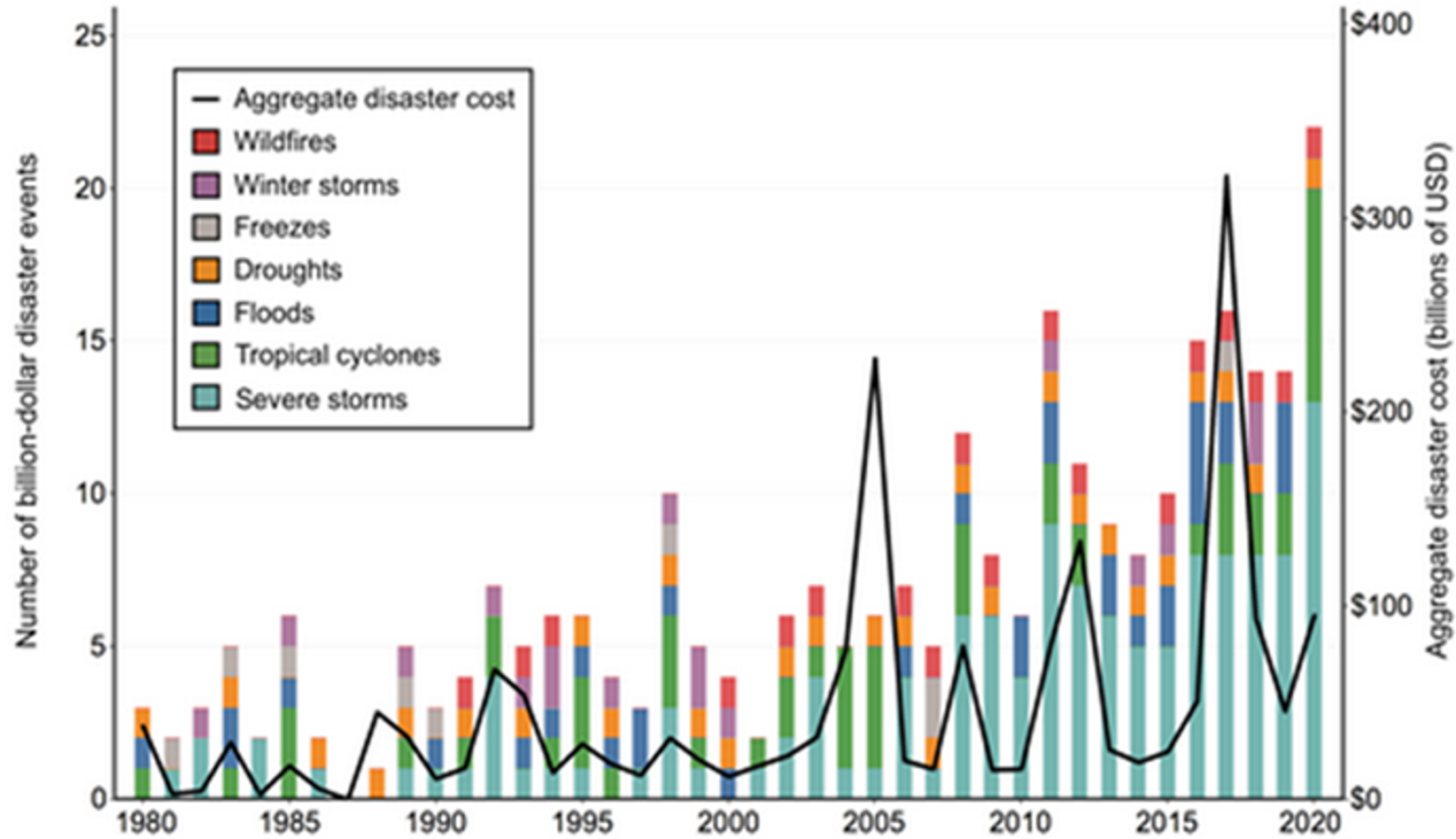


The Paris Agreement



The Cost of Climate Change

WEATHER AND CLIMATE DISASTERS EXCEEDING \$1 BILLION IN COSTS
1980 TO 2020, CPI-ADJUSTED



Group exercise

Discussing pros and cons of different climate finance instruments - limited to grants, loans, bonds, guarantees and equity.

- Discuss in what contexts different financial instruments would be used.
- Discuss why the use of different financial instruments is necessary in project finance structuring.
- Elaborate on any examples of financial structures that require the use of different financial instruments together from your own country experiences.

An overview of Climate Finance

Learning Objectives

- The need for climate finance and its importance in the African context.
 - An overview of financial sector stakeholders involved in enabling and delivering climate finance will be discussed.
 - Basic climate finance instruments that have been used to mobilize or enable climate finance. Focus will be placed on both the suite of public and private climate financial instruments and mechanisms.
- 

Introduction

- “Climate finance refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change”. (UNFCCC, 2021).
- There has been a gradual movement away from climate finance as a concept in isolation of the finance sector to one that recognizes that climate change needs to be mainstreamed across the financial system as a whole.
- It is important to note that there is no universally accepted definition for adaptation finance (Terpstra, 2013; Pillay et al., 2017).
- This presentation adopts the position that adaptation finance is broader and encompasses:
Finance that reduces social vulnerability to climate risks (e.g. post-disaster financing for relief efforts);
- Finance that is used for climate mainstreaming and resilience building (e.g. finance spent on enhancing the strength of power lines and their resistance to high wind speeds) – transforming existing financial flows rather than increasing financial flows; and,
- Finance used for risk reduction and “pure” adaptation projects (e.g. financing mangrove rehabilitation to enhance the resilience of a coastline to storm surges and coastal flooding).

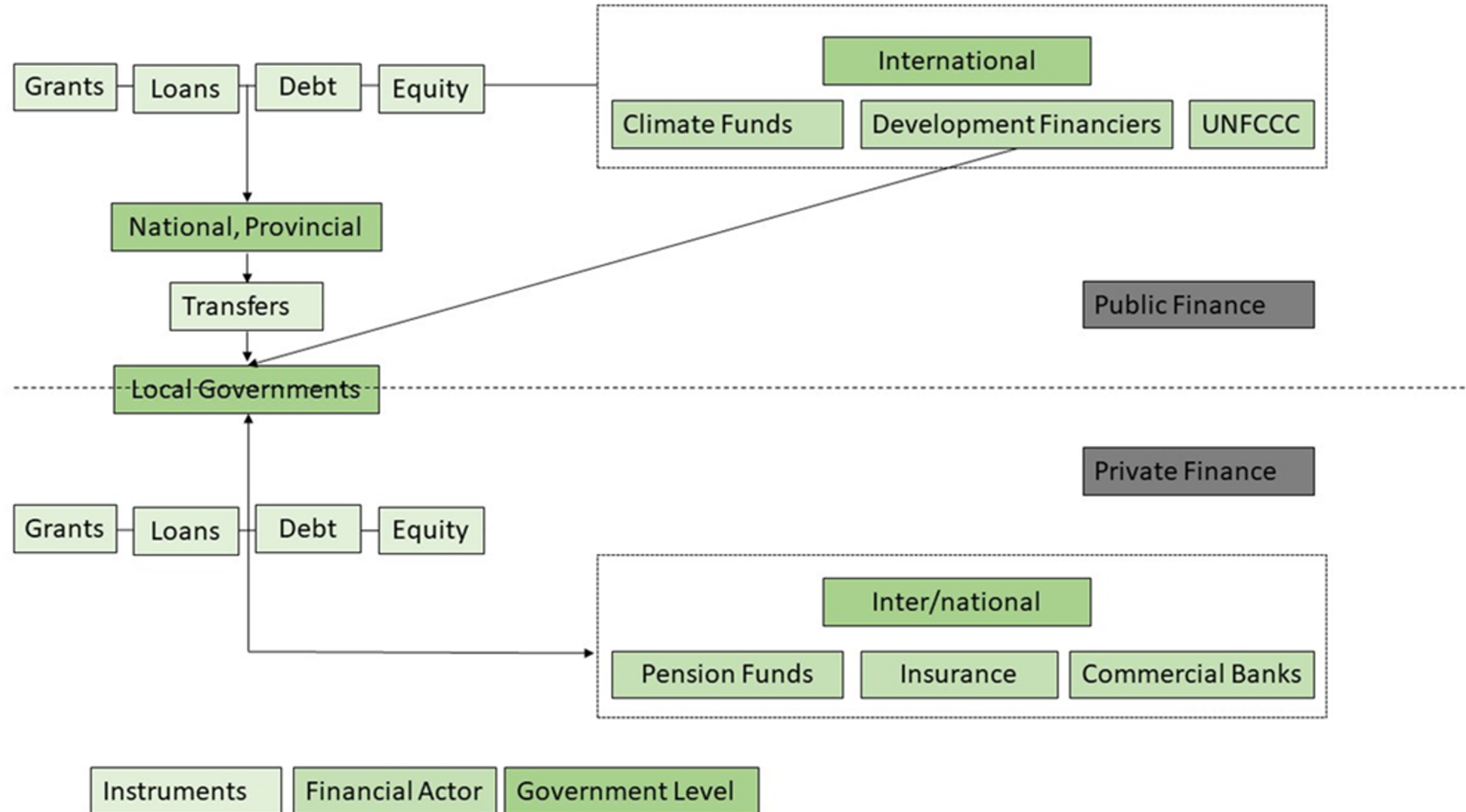
Climate Finance Needs

- \$90 trillion in climate investment by 2030 to achieve the Paris Agreement and UN Sustainable Development Goals (UNFCCC).
 - \$1.6 trillion to \$3.8 trillion annually between 2016 and 2050, for supply side energy investments alone (IPCC 2018).
 - \$180 billion annually in adaptation costs from 2020 to 2030 (Global Commission on Adaptation 2019).
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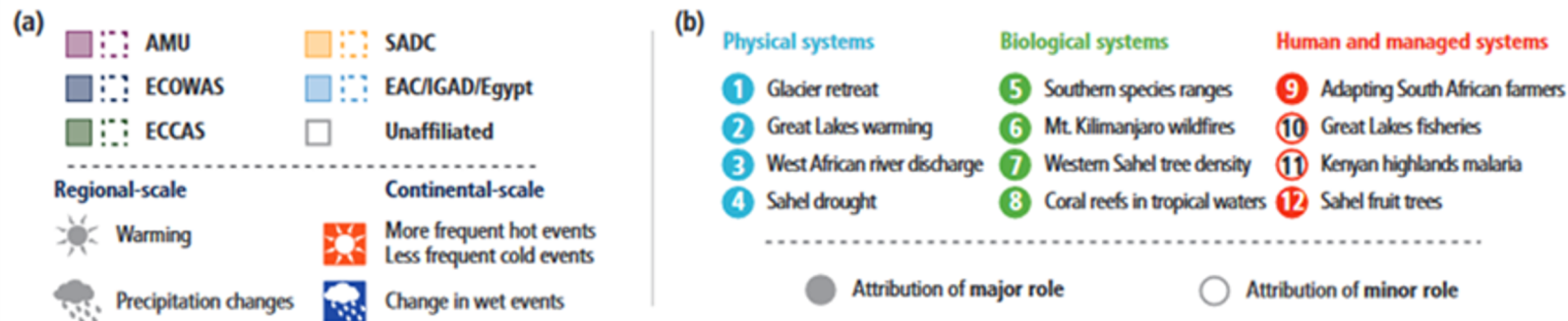
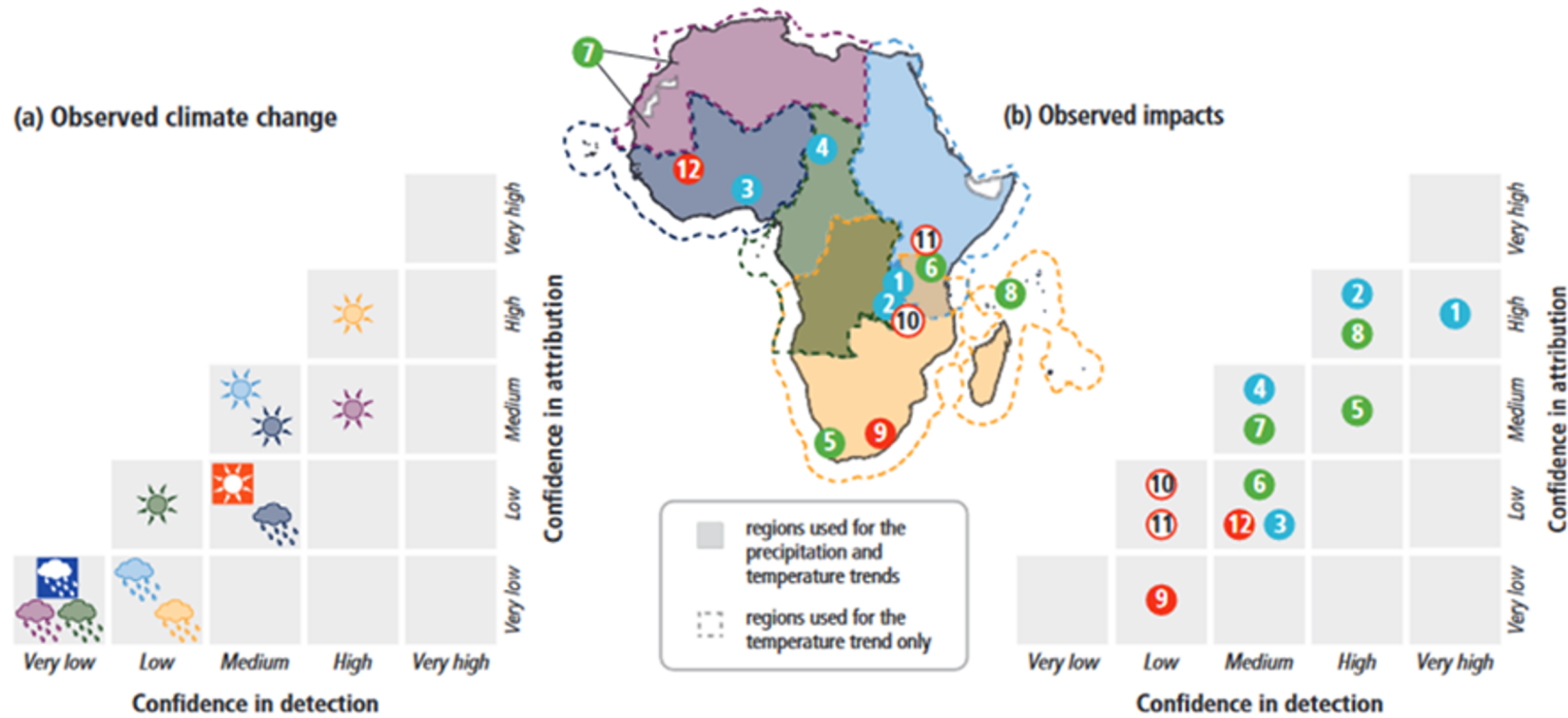
Climate Finance Multilateral Landscape

- Operating entities of the Financial Mechanism of the UNFCCC: Green Climate Fund and Adaptation Fund
 - Other Funds
- Goals of the Paris Agreement
- Nationally Determined Contributions (NDCs)
- Green Climate Fund and Country Programme
- National Climate and Development policy
 - National Development Plans
 - National Adaptation Plans (NAPS)
 - Long Term Mitigation Strategies

Public vs. Private Climate Finance

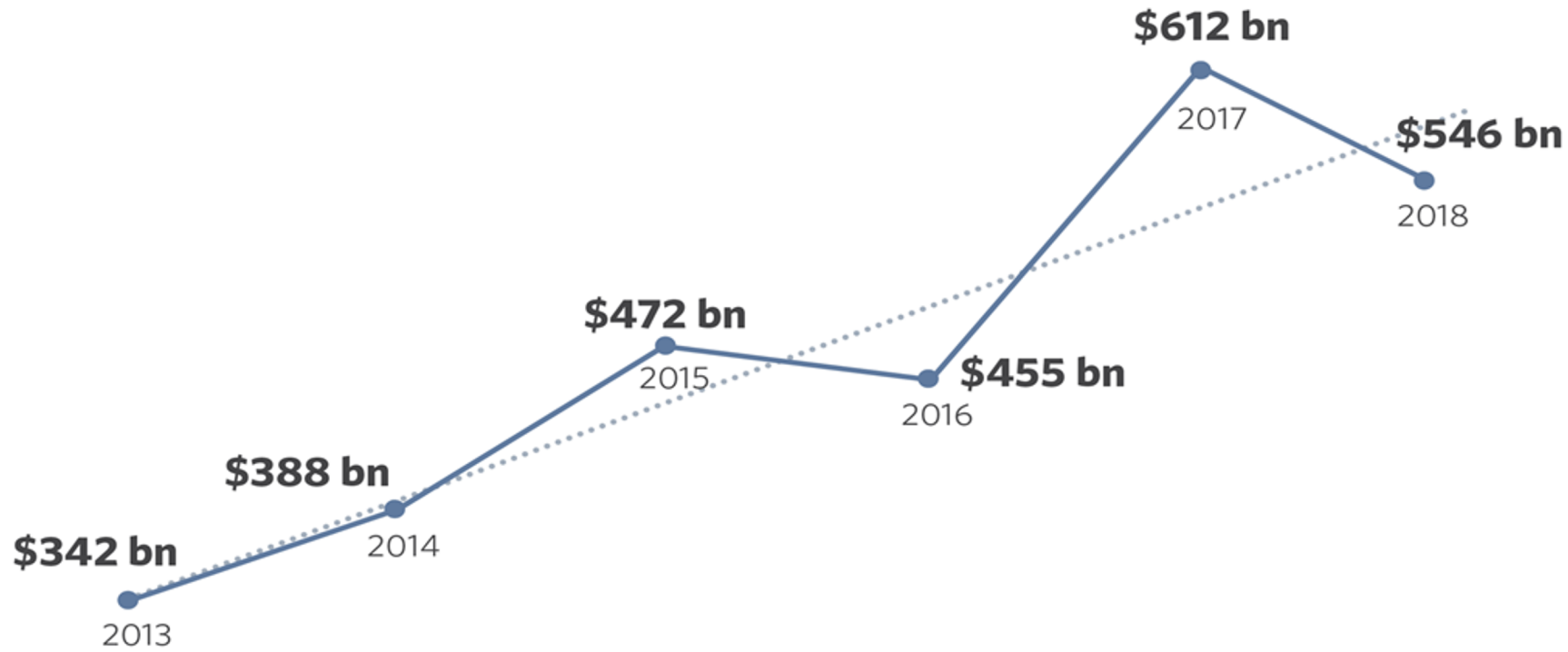


Climate Impacts - Africa



Climate finance flows over time

Total global climate finance flows, 2013-2018



Source: Climate Policy Initiative

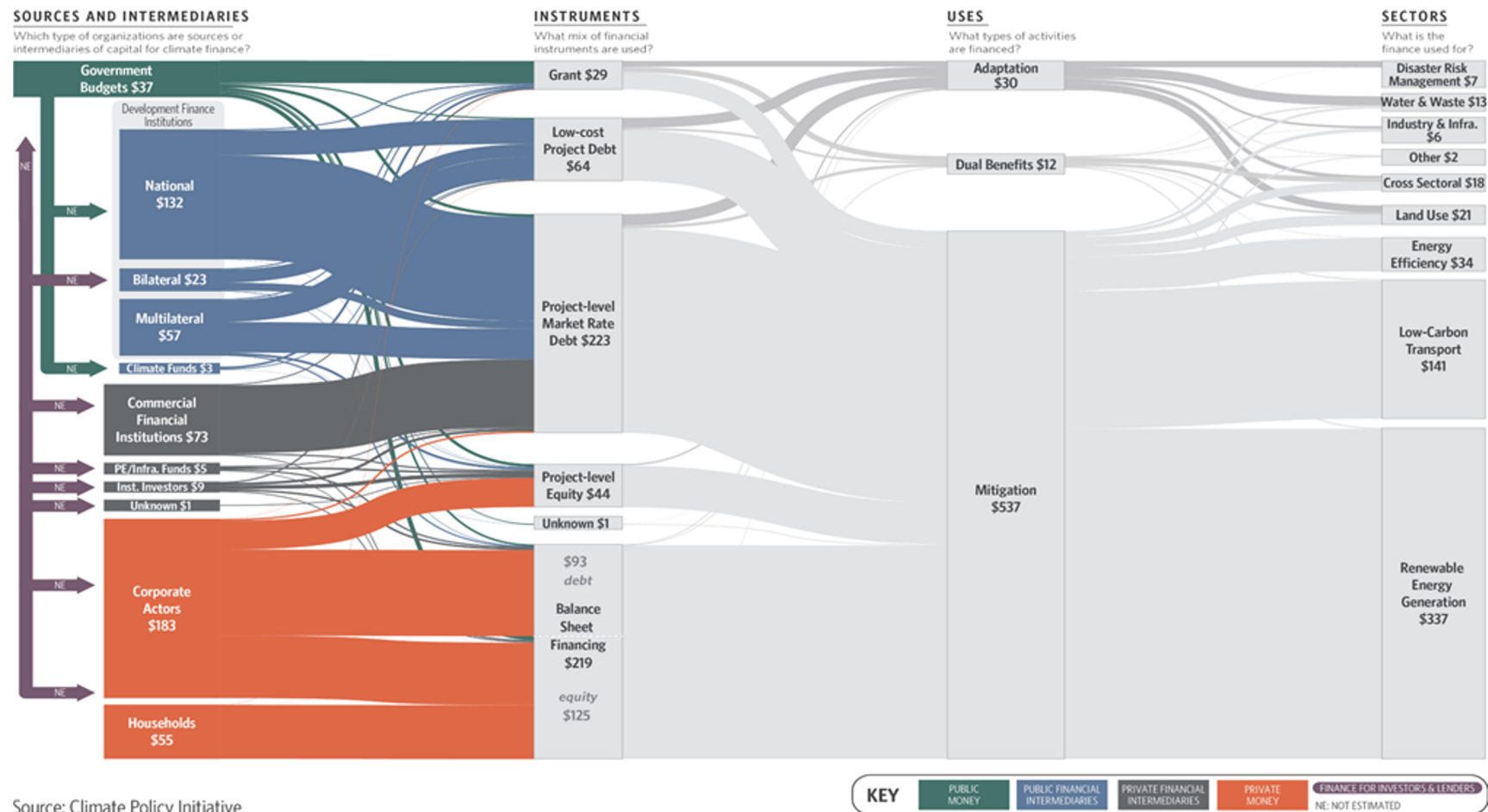
Landscape of Climate Finance by Flows

Global climate finance flows along their life cycle in 2017 and 2018. Values are average of two years' data, in USD billions

LANDSCAPE OF CLIMATE FINANCE IN 2017/2018

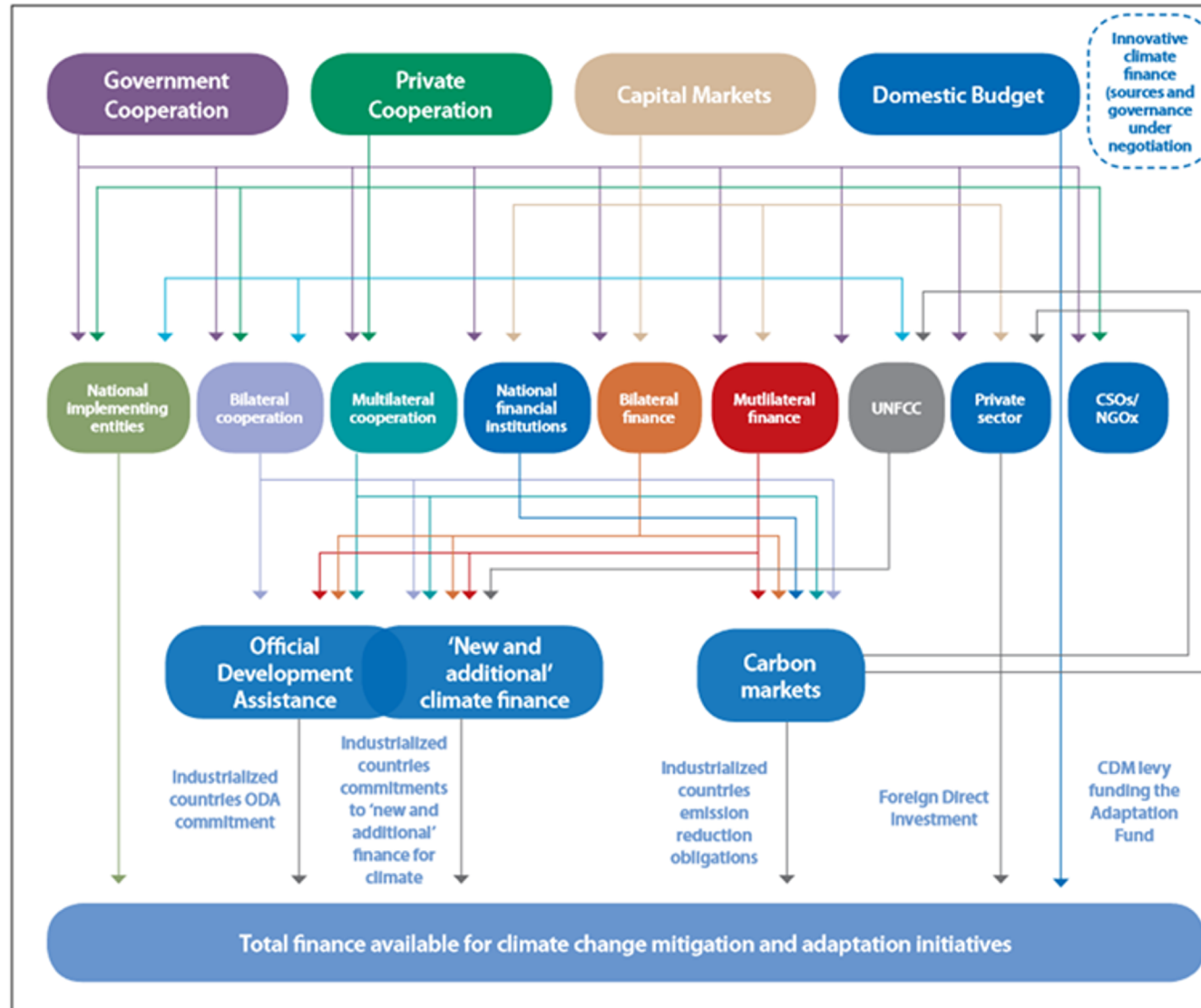
Global climate finance flows along their life cycle in 2017/2018. Values are average of two years' data, in USD billions.

579 BN USD
ANNUAL
AVERAGE



Source: Climate Policy Initiative

Institutional Landscape



Barriers to mobilizing climate finance

- Lack of clear policies and regulatory/legal frameworks on climate change;
- Inadequate technical, financial and human resource capacity, including weak institutional capacity;
- Weak coordination or integration of climate change interventions and climate finance activities;
- Low awareness of sources of climate finance and /or climate finance mechanisms and instruments;
- Insufficient and variable climate change budget allocations in national budgets;
- Variable and time-consuming funding requirements of different funders and cumbersome GCF accreditation process; and
- Lack of reliable, complete, and up to date data.

BARRIERS TO MOBILIZING ADAPTATION FINANCE



MULTI SECTOR



UNCERTAINTY
OF IMPACTS



TANGIBILITY
OF BENEFITS



LACK OF
REVENUE
STREAMS

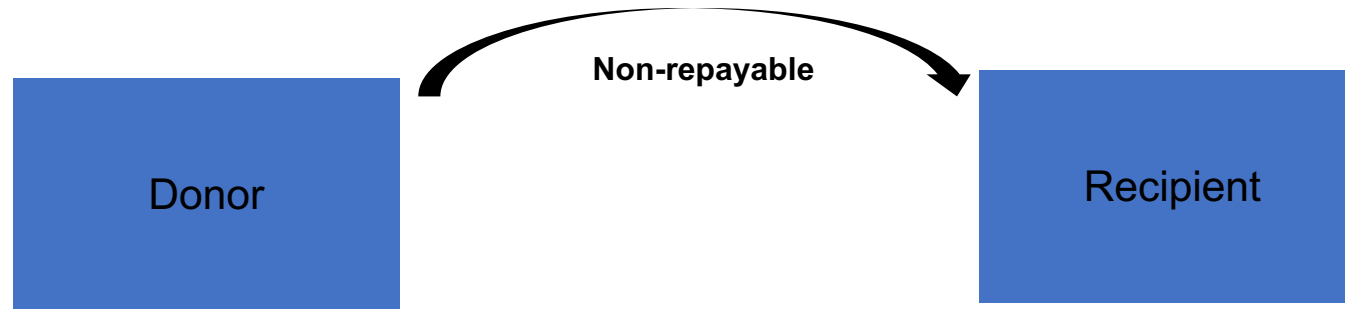


PUBLIC
GOODS



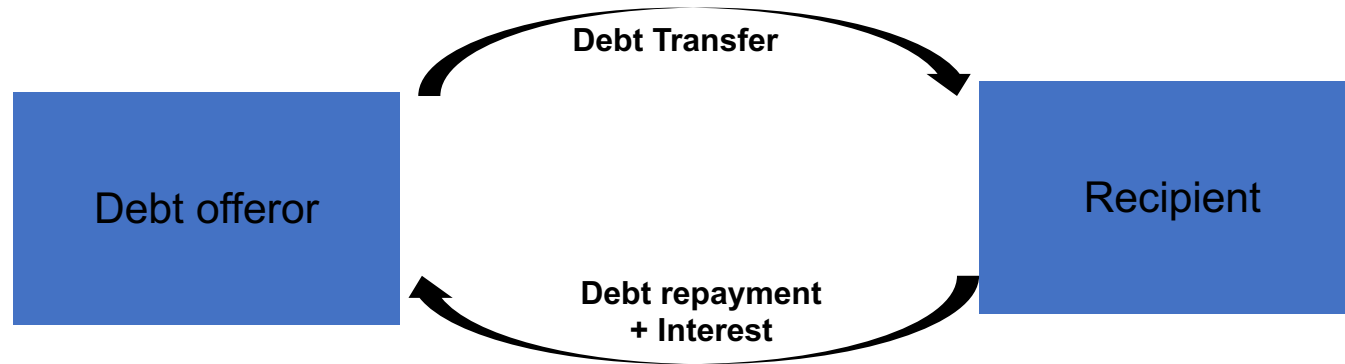
MARGINAL COSTS

Types of Financial Instruments (grants and debt)



FP165 -

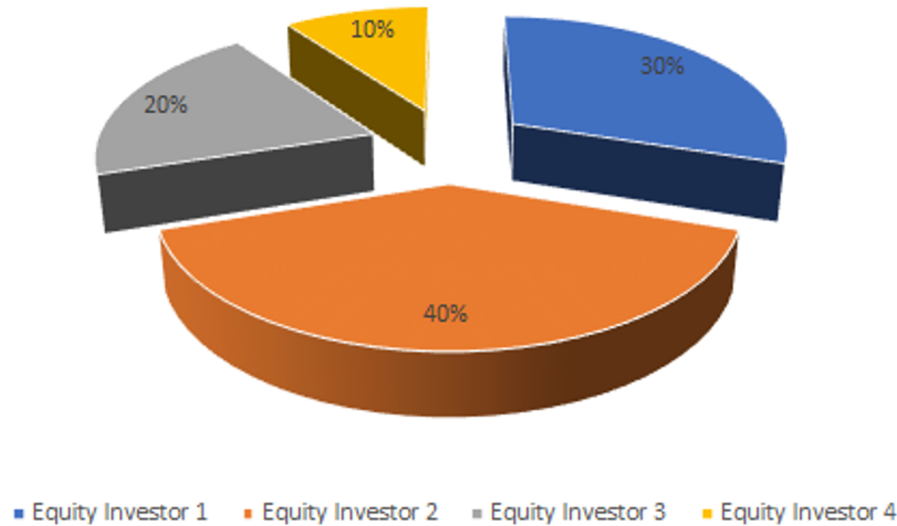
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FP106 -

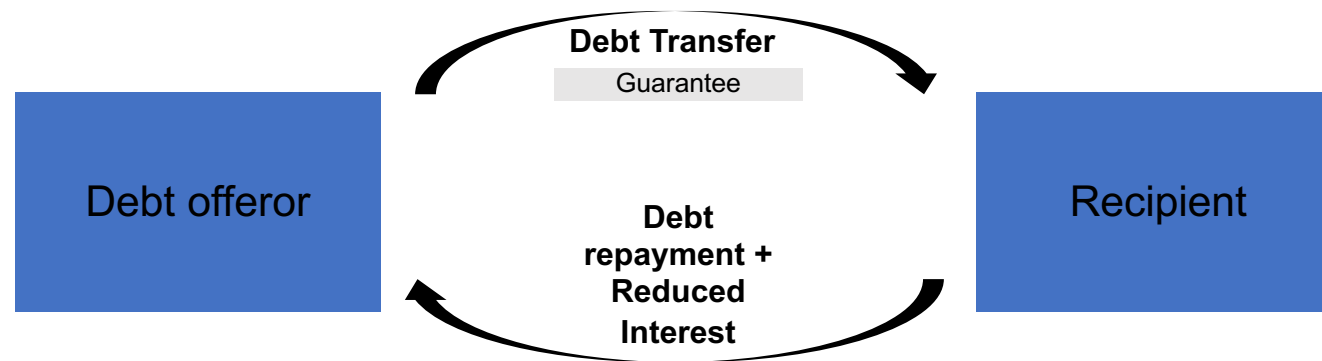
<https://www.greenclimate.fund/project/fp106>

Types of Financial Instruments (guarantees and equity)



FP152 -

<https://www.greenclimate.fund/project/fp152>



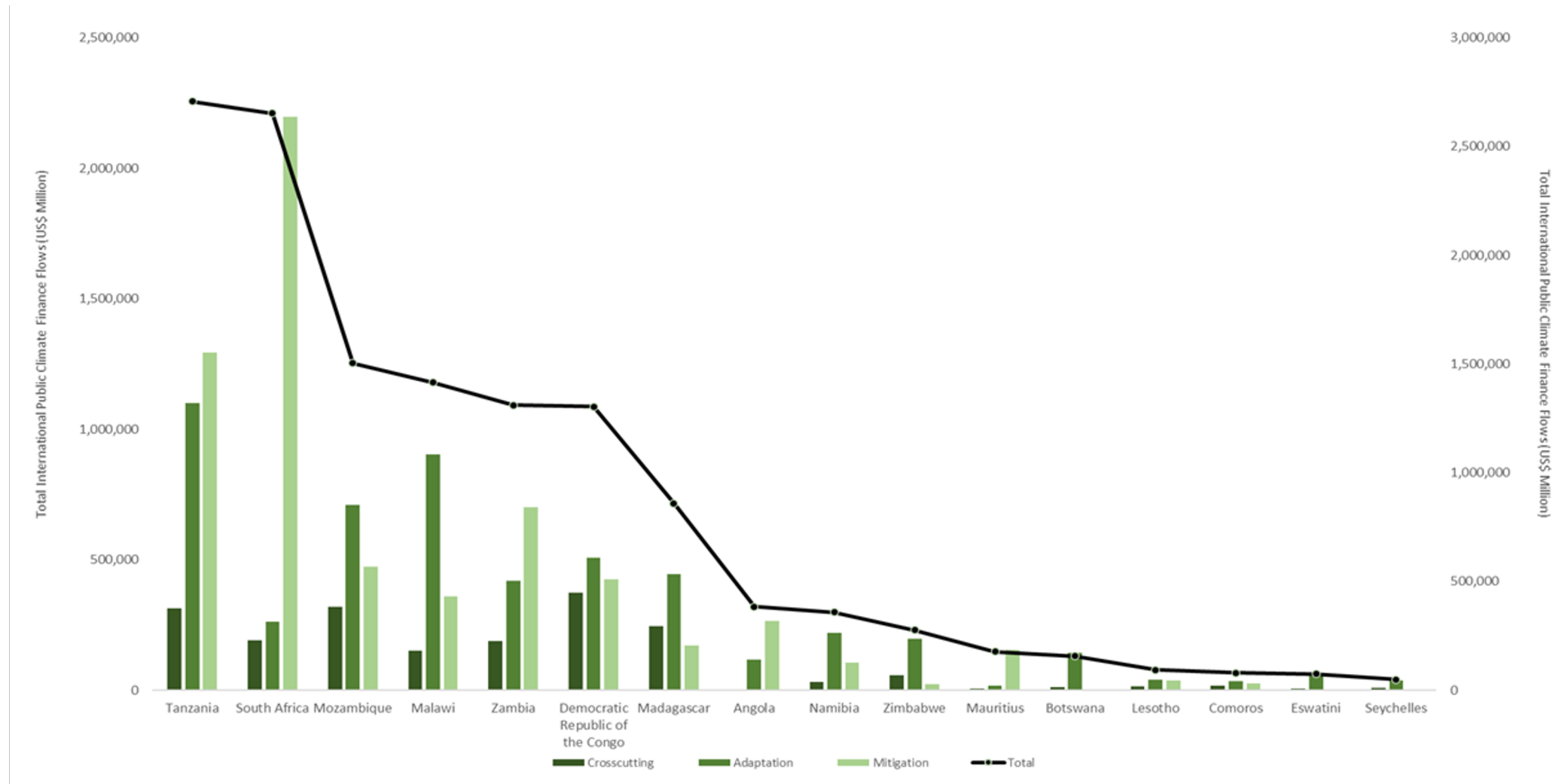
Southern African Climate Finance Context



Context

- Southern Africa is a diverse region. It covers countries with relatively high incomes per capita such as Botswana, Mauritius, and the Seychelles, but also countries with very low incomes such as Comoros, Madagascar, Malawi and Mozambique. Though each is unique, southern African countries have many development challenges in common, including the need for economic diversification, supporting entrepreneurship and financial sector development.
- The total emissions contributed by the region is estimated at 639 Mt CO₂e or 638 806.8 Gg CO₂e which is equivalent to 1.57% of global emissions. The agriculture and energy sectors dominate the GHG emissions in most southern African countries (UNFCCC, 2020).
- In the past four decades (1980-2015), the region has experienced 816 natural disasters, 491 of which were climate-related (meteorological, hydrological, and climatological) affecting an estimated 140 million people, 2.47 million lost their homes of which 110 978 died (EM-DAT, 2020).
- The majority of the region's people live in rural areas as smallholder farmers and are therefore reliant on agriculture for livelihoods with the agriculture sector being a major employer. Subsistence and commercial agriculture in southern Africa are highly dependent on precipitation for viable production.

Overall international public climate finance flows to southern African countries (2013 – 2017).



- For South Africa and Tanzania, the largest share of the funds received went towards mitigation projects, 81.87% and 46.7% respectively. For Malawi and Mozambique, funding went primarily to adaptation projects, 63.6% and 43.9%.

Overall international public climate finance flows to southern African countries (2013 – 2017).

<i>Country</i>	<i>Total USD</i>
Angola	383.6
Botswana	157.6
Comoros	79.8
Democratic Republic of the Congo	1303.5
Eswatini	74.1
Lesotho	94.3
Madagascar	859.1
Malawi	1414.2
Mauritius	178.0
Mozambique	1502.8
Namibia	359.4
Seychelles	49.0
South Africa	2651.4
Tanzania	2706.3
Zambia	1310.2
Zimbabwe	276.4

Source:OECD (2020).

- Total International Climate Finance to Southern Africa countries (2013 – 2017) – USD 13.4 bn.
- Four main recipients: Tanzania (USD 2.71 billion, 20.2%), South Africa (USD 2.65 billion, 19.8%), Mozambique (USD 1.50 billion, 11.2%) and Malawi (USD 1.64 billion, 10.5%).
- Total International Climate Finance Split by Objective: Adaptation (39%), Mitigation (47%) and Crosscutting (14%).
- The largest portion of climate finance has been disseminated through bilateral flows (57.1%) followed by multilateral development banks (33,5%) and thereafter by climate funds (9.3%).
- Germany has provided the highest amount of bilateral climate finance to SADC member states, in USD 2018 2,0 bn while the World Bank is the primary MDB in the region (USD 2,295 million).

Domestic and Private Finance

- Mauritius is the only southern African country to have reported domestic private finance investments in key sectors in its National Communications. Total investment of USD 180 million from the private sector were reported during the period 2014-2020.
- Several southern African countries have received private investment in the form of co-financing within Green Climate Fund proposals. The total private investment for GCF projects that include southern African countries is estimated to be USD 1.51 billion.
- Based on climate energy investment data from the BNEF database, investments in solar and wind in the region amount to USD 14.59 billion and USD 8.29 billion, respectively. South Africa has received the largest amount of private investment compared to all other southern African countries – USD 21.99 billion, followed by Zimbabwe (USD 1.02 billion) and Tanzania (USD 382 million).

Estimated Finance Gap

- Total public climate finance to SADC region, 2013-2017: USD 13.4 bn (OECD DAC).
- Yearly average: USD 2.7 bn.
- Private finance: USD 1.51 bn or USD 29 mn per year.
- Domestic finance: USD 211.7 mn or USD 42.3 mn per year.
- Total public and private climate finance to SADC region: USD 15.12 bn.
- Estimated Finance Gap: USD 175.7 bn up to 2030 and USD 12.9 bn per year.
- For both mitigation and adaptation, a significant financial gap exists between flows and needs.



The Southern Africa
Climate Finance Partnership



IDRC • CRDI

International Development Research Centre
Centre de recherches pour le développement international

Canada

THIS PRESENTATION IS AN OUTPUT OF THE SOUTHERN AFRICA CLIMATE FINANCE PARTNERSHIP (SACFP). THE SACFP LOOKS TO SUPPORT THE DEVELOPMENT OF A REGIONAL PARTNERSHIP PROGRAMME TO IMPROVE COUNTRY-OWNED CLIMATE FINANCE PORTFOLIOS. THE INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC) PROVIDES FINANCIAL SUPPORT FOR THE CURRENT PHASE OF THE SACFP.

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