

SIAS Staple Inn Actuarial Society COP 27: Takeaways for Actuaries

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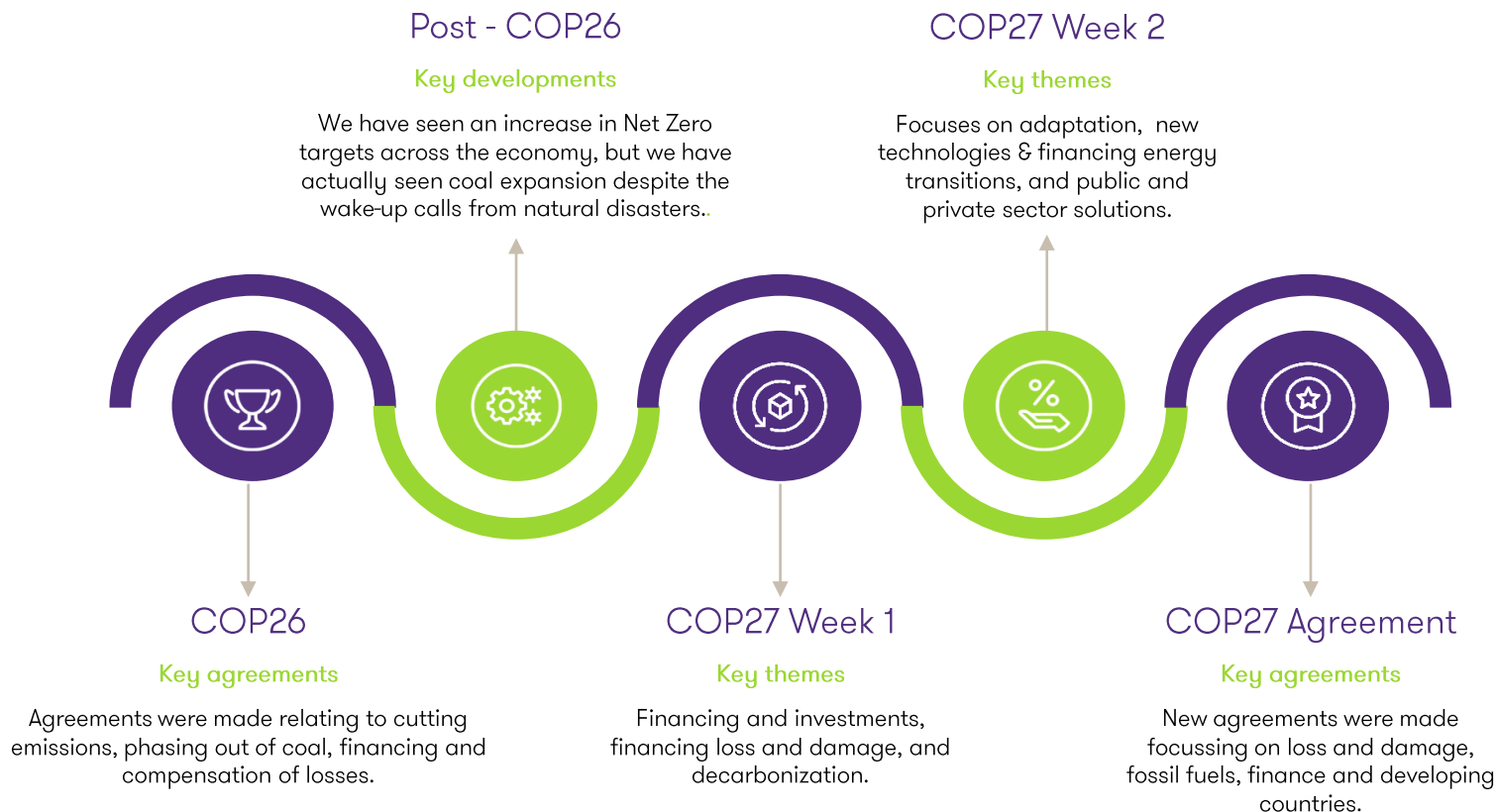
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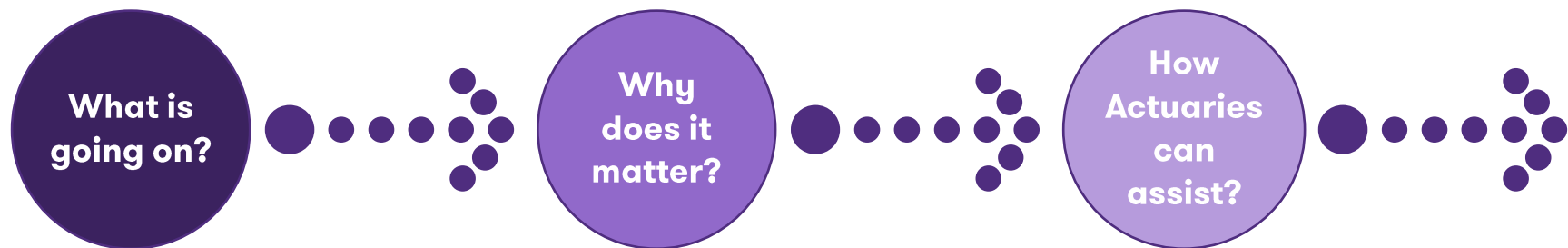
18 January 2023



Agenda & Disclaimer



3 Questions



COP26 Agreements

1. On cutting emissions

- Cut global CO2 emissions by 45% by 2030 Zero overall by 2050
- New improved targets by 2022 in line with Paris Agreement of keeping warming below 2°C and closer to 1.5°C.
- *Australia and New Zealand have already suggested they have no plans to revisit their commitments*

2. On fossil fuels – a first at a COP

- Accelerate efforts towards phasedown of unabated coal power
- Accelerate the phaseout of inefficient fossil fuel subsidies that artificially lower the price of coal, oil, or natural gas.
- *Tone was changed last minute to “phase down” rather than “phase out” due to pressure from India and China*

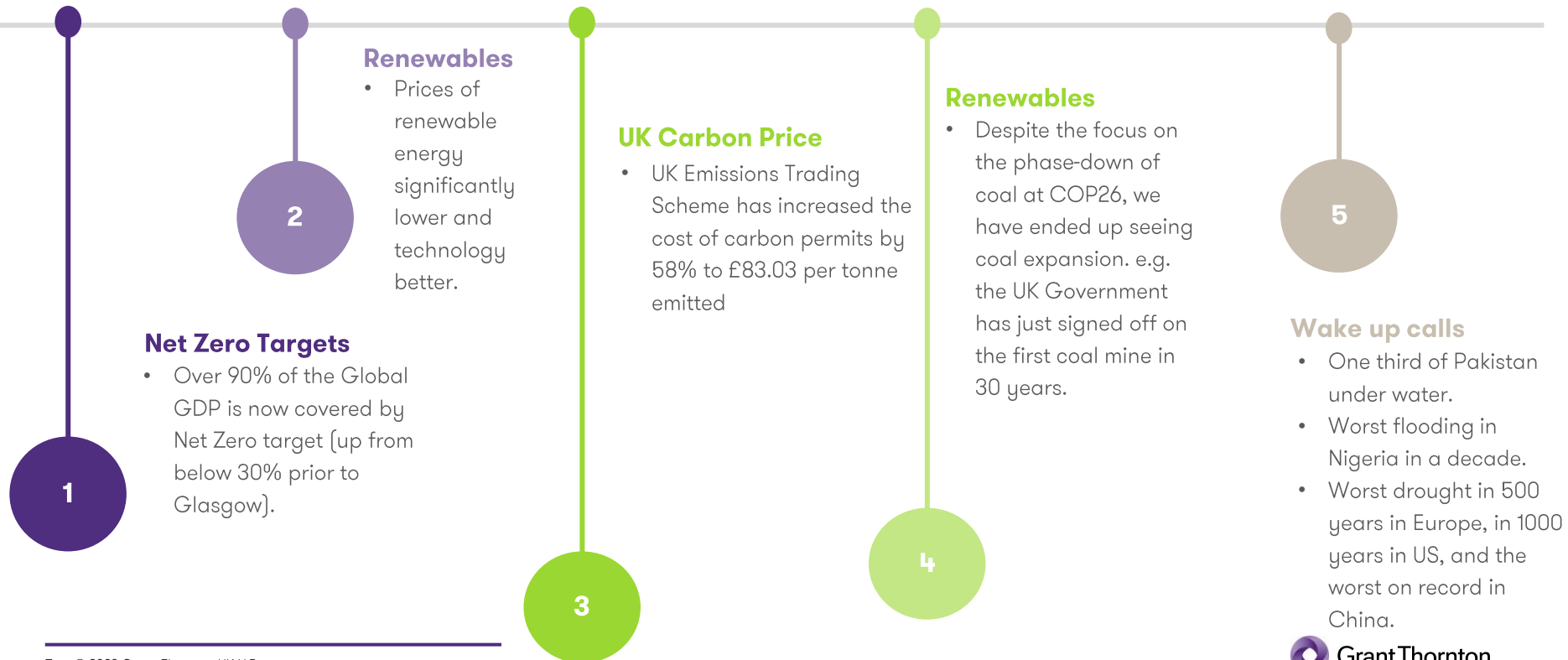
3. On finance

- Commitment for wealthier nations to help poorer countries become more resilient against weather caused by climate change (e.g. new sea defences, more robust power grids) and switch to clean energy.
- *Wealthy countries failed to meet long-standing promise to mobilise \$100 billion a year in climate finance by 2020*

4. On losses

- Wealthier countries to provide compensation to vulnerable countries affected by rising seas, wildfires and storms.
- *No agreement on establishing a dedicated fund for loss and damage*

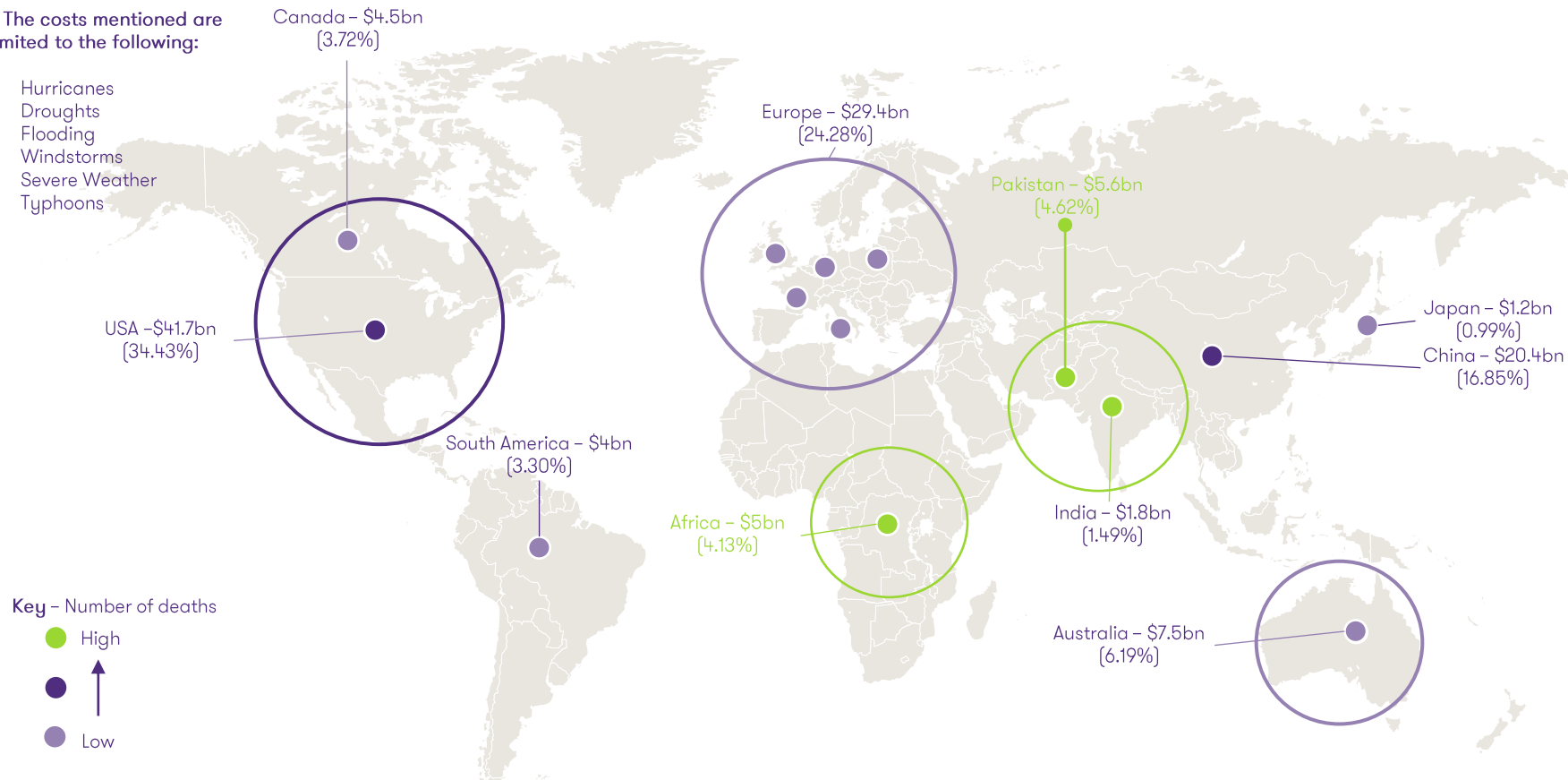
Activity since COP26



Climate Costs

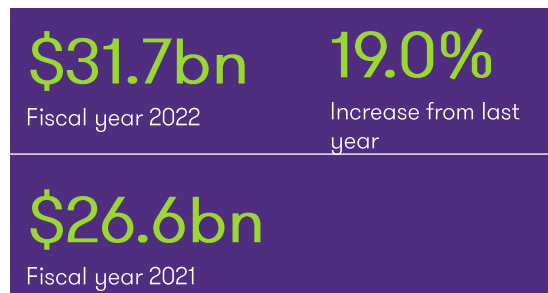
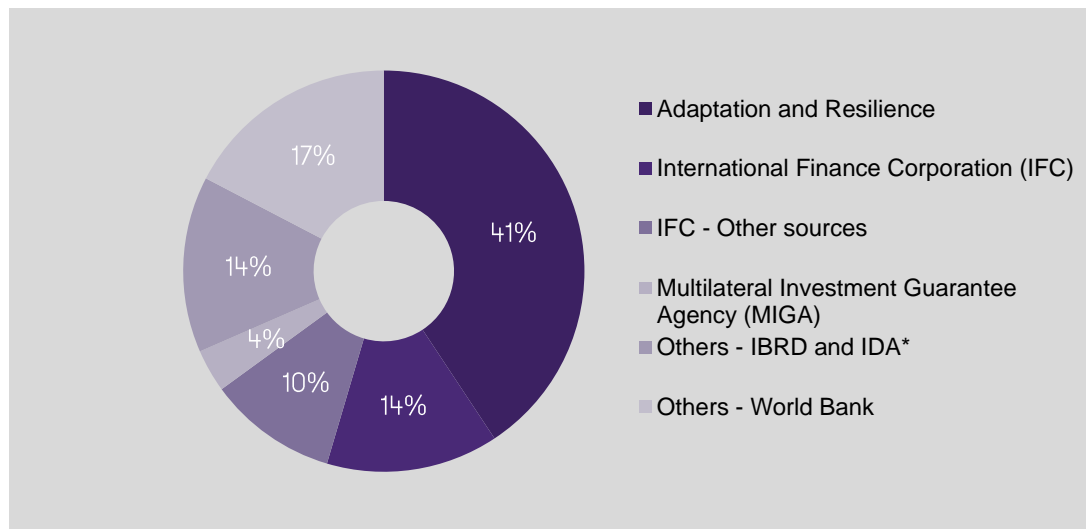
* The costs mentioned are limited to the following:

- Hurricanes
- Droughts
- Flooding
- Windstorms
- Severe Weather
- Typhoons



* <https://yaleclimateconnections.org/2022/10/world-rocked-by-29-billion-dollar-weather-disasters-in-2022/>

World bank delivered \$31.7 billion in climate change in 2022



Notes:

- Financing for climate action in FY22—which covers July 1, 2021, to June 30, 2022, reached 36% of total Bank Group financing.
- It exceeds the target set in the Group's Climate Change Action Plan for 2021-2025 to deploy an average of 35% of the institution's financing in support of climate action.

*International Bank for Reconstruction and Development (IBRD)
International Development Association (IDA)

COP27 - Week 1

Notable Thematic Days

7/8th November - World Leaders' Summit

9th November - Finance Day

11th November - Decarbonisation Day



Timeline of key events – Week 1

- Very relevant to insurance industry
- Somewhat relevant to insurance industry
- Fewer implications on insurance industry

Financing Loss and Damage

Climate compensation for developing nations

1

Role of Financial Regulatory Bodies to Facilitate Climate Finance

Financial regulators can introduce innovative policies and regulatory approaches – such as increasing transparency of reporting

Reducing the Cost of Green Borrowing

Legislations and subsidies to reduce the cost of borrowing

2

Sovereign Debt for Nature and Climate Investment

Increasing amount of debt being used to fund climate related costs

3

Financing Adaptation

Discussions on adaptation plans and how to increase adaptability projects bankability and attractiveness to investors.

6

Forging Ahead: Supporting Low-Carbon Development Pathways for Africa and the Developing World

How can developing countries access low-carbon resources at an affordable cost

9

Encouraging the Role of the Private Sector in Climate Related Initiatives and Climate Transition

Different policies which can incentivise the private sector towards reducing their carbon usage

4

The Decarbonization Challenge

Discussions about approaches and policies that facilitate transition towards a low carbon economy.

5

Special Role of MDBs and Philanthropies in Unlocking Climate Finance

Discussions on how countries can go beyond traditional financing to seek below market loans

10

From Commitments to Action: The Oil & Gas Industry's Decarbonization Journey

Discussions of the best industry practices and technologies that encourages decarbonization.

8

Theme 1 – Financing and Investments

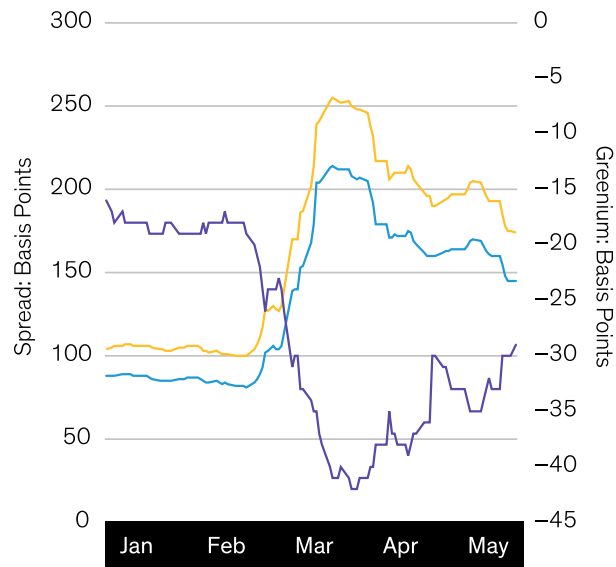


Cost of green borrowing

- At least **\$1 trillion pa** needed for the emerging markets.
- Green bonds from 2020-2021 have **tripled** in value of issuance.
- Managing the exposure** to currency fluctuations and volatility to ensure capital flows more effectively

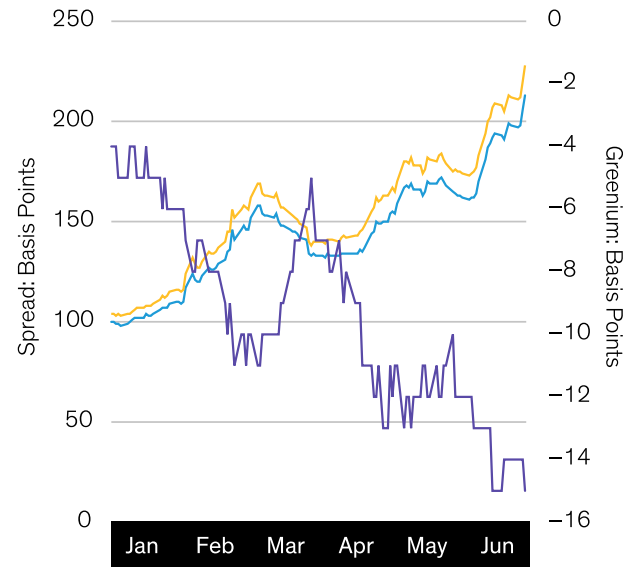
Spreads and Greenium

January through May 2020



Spreads and Greenium

January through June 2022



— ICE Euro Corporate Green Bond Index

— ICE BoFA 5-7 Year Euro Corporate Index

— Greenium

Source: <https://www.alliancebernstein.com/corporate/en/insights/investment-insights/understanding-green-bond-performance-in-market-setbacks.html>

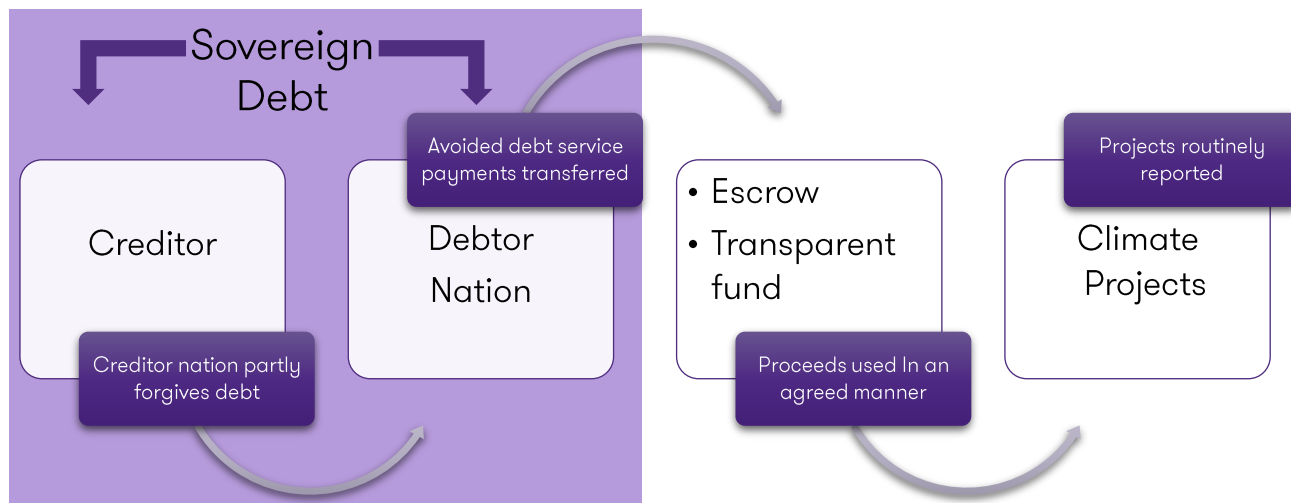
Theme 1 – Financing and Investments



Sovereign Debt Climate Investment

- 60% of low income countries at risk of debt distress.
- 20+ African countries are at risk of debt distress, with costs potentially rising from 5% of GDP to 10%.
- Private participation in Climate Swaps?

Climate Swaps Arrangements



Theme 1– What should I be thinking about as an Actuary?



Assets

- Investments in new assets and asset classes to fund transition
- Ownership of overseas sovereign assets and eligibility in to matching adjustment portfolios



Data

- Data quality and governance



Climate Ratings

- ESG/Climate ratings incorporation for assets in a similar fashion to the credit rating agencies



Climate Swaps

- Debt for climate swaps and companies using this market solution to reduce their carbon emissions exposure in the transition to Net-Zero.

Theme 2 – Financing Loss and Damage

04

Global Shield Against Climate Risk

- 58 countries covering **1.5 billion people**
- Initial contributions of **€210 million**

03

Transitional Committee

- Fund still on **step 0**
- 24 Countries and 2023 meetings
- Operational plan to be released **before or at COP28 Dubai**

01

01

Breakthrough

- **Loss and damage first mentioned at COP13, 16 years ago.**
- Great unsettled matters of COP26

02

02

Aims and Principles

- Fairness
- Sustainable
- Transparent
- Equitable

04

Loss and
Damage Fund

03

Theme 2– What should I be thinking about as an Actuary?



Methodology

- Who contributes to fund
- Who gets paid out
- Claims Estimation
- Claim Validation
- Operationally making payment



Products

- Adopting the new framework
- New products for climate change



Potential Fund Structures

- PPF (Pension Protection Fund)
- Flood Re



Private Participation

- Reducing Scope emissions
- Potential for Greenwashing

COP27 - Week 2

Notable Thematic days

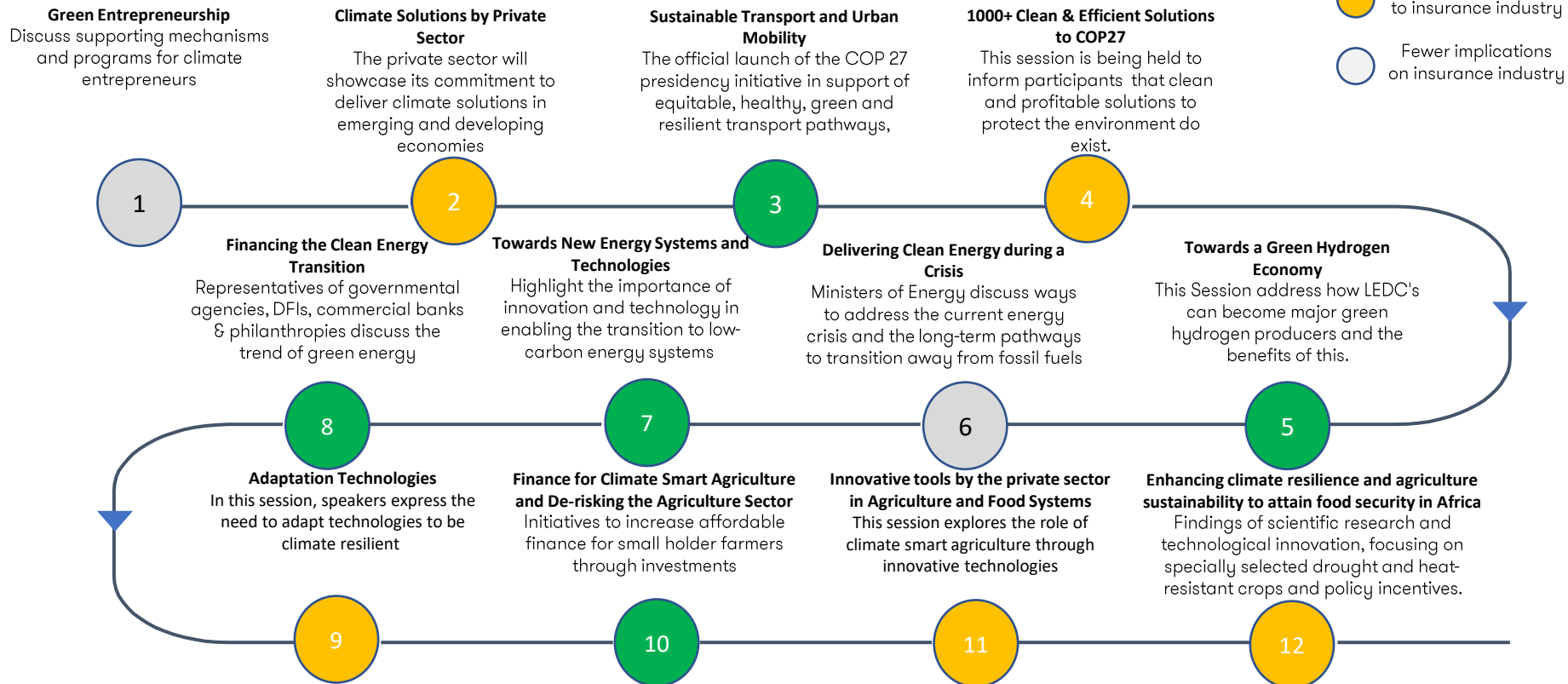
12th November – Adaptation & Agriculture Day

15th November – Energy Day

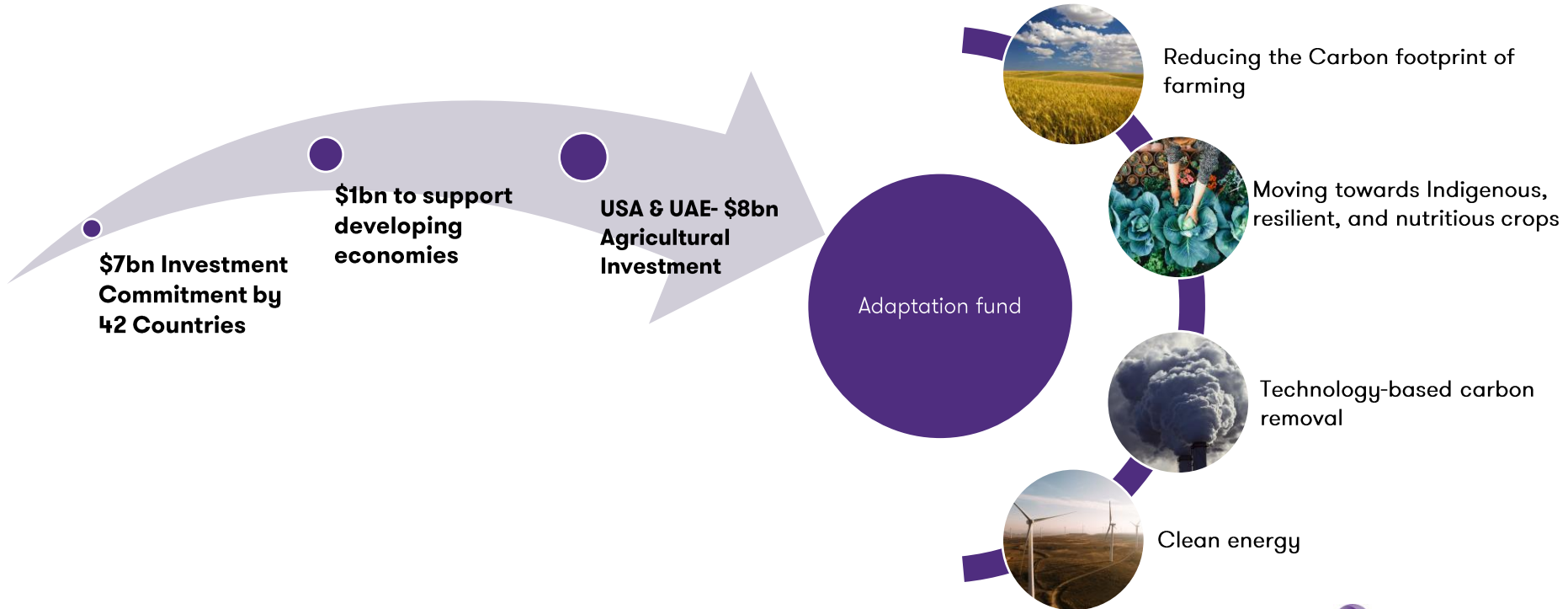
17th November – Solutions Day



Timeline of key events – Week 2



Theme 3 – Adaptation and Agriculture



Theme 4 – New Technologies & Financing Energy Transitions



6) Green Energy in the UK

The UK aims to generate 50GW of installed offshore wind capacity by 2050. The current capacity is 12 GW



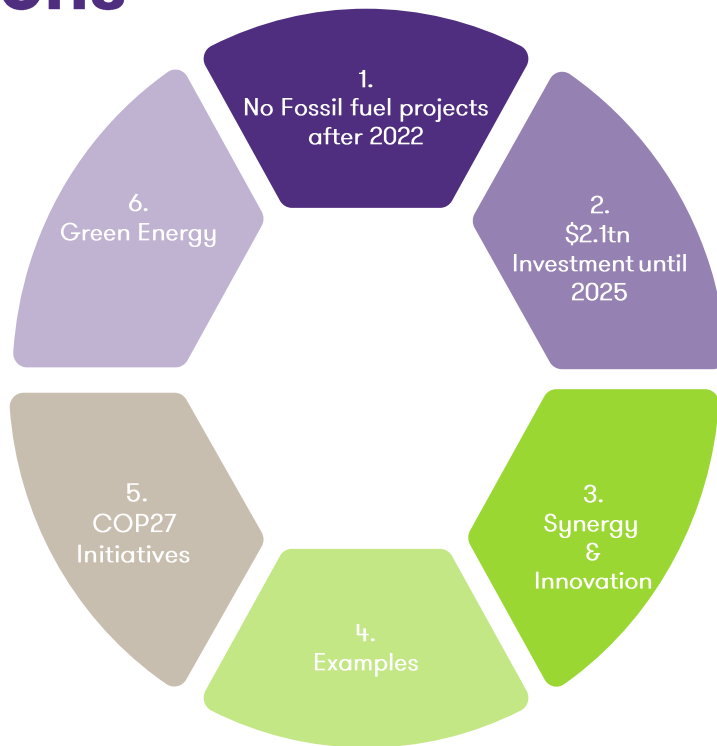
5) Africa Just and Affordable Transition Initiative

300 million Africans to access affordable energy ,sustainable cooking fuels and technologies with an aim to increase the share of renewable electricity by 25%.



4) Examples

Islamic Development bank's electricity interconnectivity project that spans between Egypt and Saudi Arabia.



1) Reduce dependence on Fossil Fuels

International Energy Agency - no new fossil fuel projects can run after 2022



2) More Investments

Despite record investments, £2.1 trillion is required annually until 2025 and double that annually to 2030 to stay on Net Zero Pathway



3) Encouraging investors

Synergy between Governments and private investors is essential in ensuring there is a successful transition to clean energy through innovation and investments

Themes 3 and 4 – What should I be thinking about as an Actuary?



New insurance products to cover emerging risks



Valuation of damages and modelling of climate risk



Fairness in non-quantifiable damages



Collaborating with specialized agencies such as agricultural engineers, chemical product experts and technicians

COP27 Agreement



COP27 Agreements

1. On Loss and Damage

- A fund to compensate developing countries for **loss and damage** caused by the climate crisis.
- Setting up a **transitional committee**
- Committee will present its recommendations at Cop28 in the United Arab Emirates in 2023, with a view to getting the fund up and running.
- **Global Shield against Climate Risks** Immediate Implementation

2. On Energy

- New Indonesia **Just Energy Transition Partnership**
- How-to guide to ensure credible, accountable **net-zero pledges** by industry, financial institutions, cities and regions
- COP27 decision failed to call for the winding down of all fossil fuel use. Seen as a failure to progress from Glasgow's "Phasing Down" coal pledge.

3. On Finance

- COP27 text calls on MDBs and other financial institutions to reform their practices and priorities to ensure they are fit for purpose of adequately addressing the global climate emergency.
- \$3.1bn funding for improving the early warning systems in the next 5-years
- Wealthy countries **again failed** to meet long-standing promise to mobilise \$100 billion a year in climate finance to developing nations.

4. On Countries

- Developing countries need to work with investors, rich countries and development banks to **secure \$1 trillion a year** in external financing for climate action by the end of the decade.
- launched a package of **25 new collaborative actions** in five key areas: power, road transport, steel, hydrogen and agriculture.

Key Learnings

What is going on?

- Funds being set up to mitigate and compensate for climate change
- New investment classes being created
- Public policy being introduced to modify behaviours

Why does it matter?

- Will impact day-to-day living
- Opportunities and risks will emerge
- A smooth climate transition will incur less risk in the long term

How Actuaries can assist?

- Use skills to understand benefits and drawbacks of green projects
- Offer innovative new products for emerging risks
- Promote investment in new asset classes, and ensure risks are understood

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Questions?

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