



Inception Meeting – Technical Assistance

Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region

8 September 2020



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METABIOTA



WillisTowersWatson 

Objectives of the Inception Meeting



Present the rationale, scope and outputs of the regional technical assistance

Obtain inputs and feedback from member countries on:

- Inception report, including proposed approach and methodology for the project outputs;
- Expectations from the project;
- Existing disaster risk financing challenges and countries' disaster risk management priorities going forward;
- Countries' preparedness and response to pandemics / epidemics: lessons learned from COVID-19.

Discuss next steps and work program for 2020-2021

Regional Technical Assistance

Oct. 2018

Special Session on Building Climate Resilience through disaster risk insurance – CAREC National Focal Points’ Meeting



Nov. 2019

\$2 million. regional technical assistance approved



Jun. 2020

Additional component (\$0.75 mill.) approved



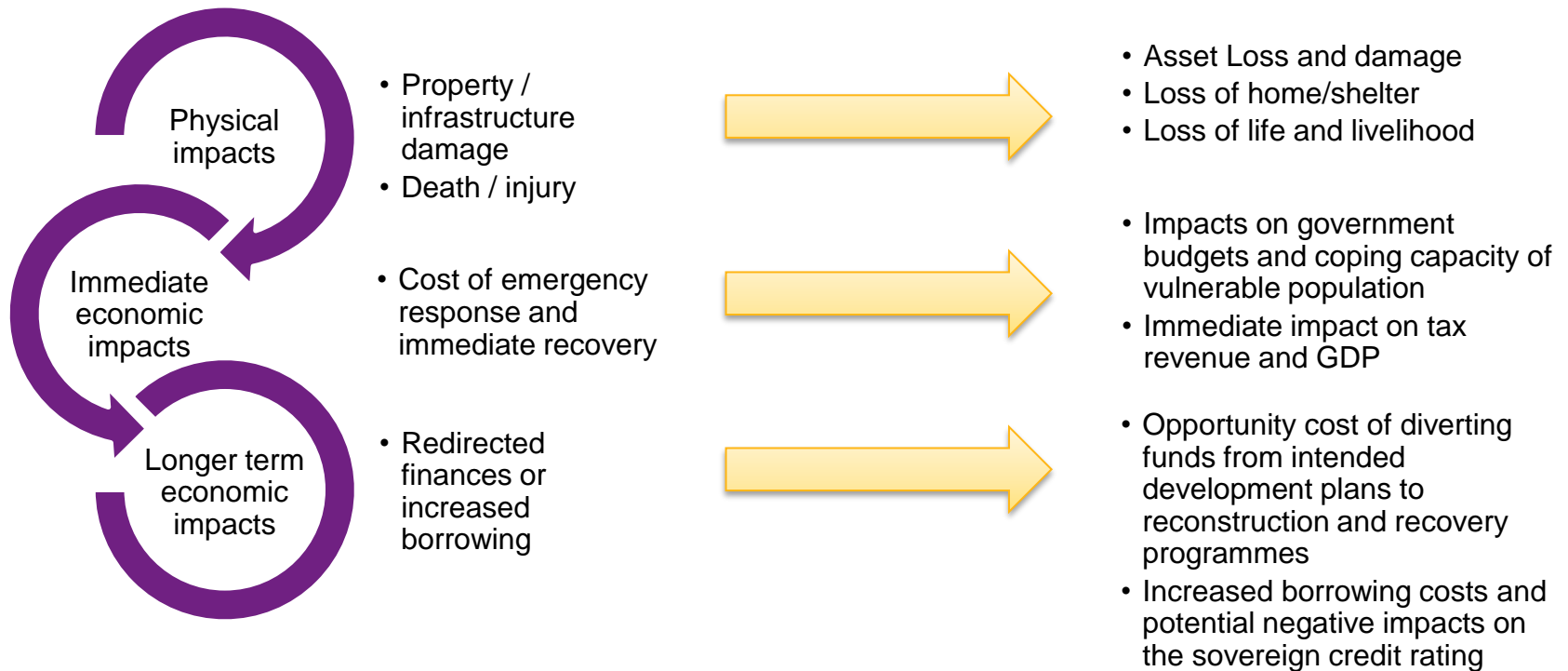
- **Disaster risk profiles** for earthquakes and floods and open access **modelling tool**
- Design and feasibility study for a **regional disaster risk transfer pilot**
- **Capacity building** on disaster risk financing, including insurance, among key stakeholders



- **Infectious disease risk models** and sustainable financing mechanisms

The work of this TA will be coordinated with other development partners and complementing disaster risk management initiatives in the region

Natural Hazards Hurt People, Assets and Economies



The aim of the project is to help ensure that CAREC countries have appropriate liquidity to respond to catastrophe events more quickly and efficiently: saving lives, protecting the vulnerable and minimising financial impact.

Disaster Risk Finance (DRF) Lessens Disaster Impacts



Studies show that the more a country is insured, the lower the economic impact of a natural disaster AND the faster the recovery

Asia, including in the CAREC region, has a very low insurance penetration but a very high share of global natural disasters

Economic losses from COVID-19 could range from \$1.7 trillion to \$2.5 trillion in Asia and the Pacific region alone

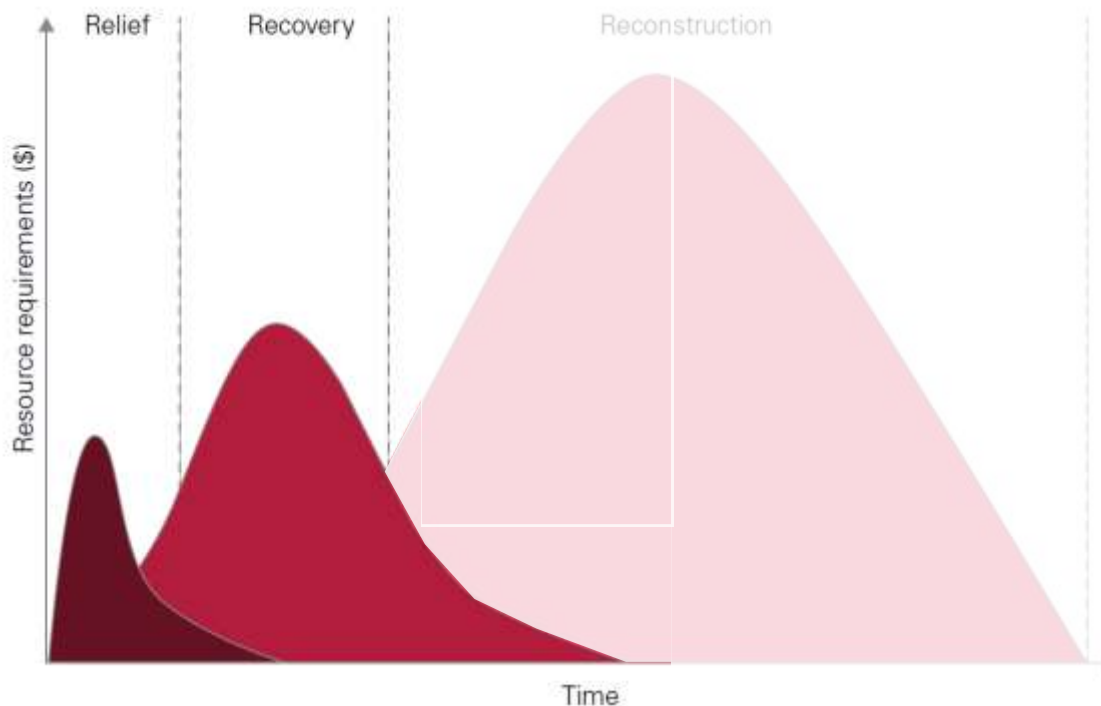
100-year Insured and Economic Losses by Region (Annual Aggregate)

(in USD Billions)



Source: Munich Re / AIR.

Early, Effective Emergency Response is Vital



- Key requirements for relief and early recovery:
 - Timeliness of funds
 - Predictability of funds
- Various studies have shown that \$1 received immediately after a disaster is worth up to \$5 delivered later in typical aid cycle
- The current approach typically relies on budget reallocation or external support

Relief: Within 2 months of disaster

- Humanitarian response
- e.g. providing food, medicine, shelter

Recovery: Within 9 months of disaster

- Restoration of basic services and economic productivity
- e.g. Re-starting transport, energy supplies, markets

This Project Aims to Help Optimize Your DRF Strategy



An efficient plan:

Minimizes economic impact

Minimizes human impact

An innovative and targeted strategy:

Aid/fund emergency response

Speeds economic recovery

A regional disaster risk facility:

Minimizes and stabilizes premium costs

Encourages regional risk ownership and co-operation

Countries with an integrated disaster risk financing approach including higher insurance penetration recover from disasters more quickly

The Project Will Be Collaborative

A consortium has been appointed to assist this process

Reports and tools will be developed for use of member countries to help in disaster risk understanding and strategy optimisation

All forms of disaster risk finance will be reviewed, with a focus on emergency response and protection of the most vulnerable

The focus is on capacity building, practicality and innovation

The active participation of CAREC members is strongly encouraged for this workshop and throughout the process

The Project Team



Willis Towers Watson – Risk Specialists

- Leading global advisory, broking and solutions company
- Role in creation and protection of all current regional risk pools, leaders in catastrophe and financial modelling

Metabiota – Epidemic/Pandemic specialists

- Global pandemic/epidemic model: CAREC regional coverage, Covid-19 spread and impact monitoring and modelling

ODI – Resilience Specialists

- Prominent independent think tank on resilience and development

Pengwern Associates – Economics specialist

- Leading development economists

JBA – Flood specialists

- Global flood model, leading flood specialists including user risk visualisation

Aga Khan Agency for Habitat

- Internationally renowned focal point for the coordination of the risk reduction activities across Central Asia

The Regional Environmental Centre for Central Asia

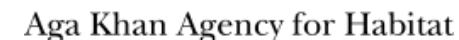
- The leading regional experts in capacity building and stakeholder engagement

Nankai University & Inner Mongolia University

- Noted academic institutions in China focusing on disaster risk management

Global Health Research Center of Central Asia

- Working to address a range of threats facing vulnerable communities across Central Asia



Understanding is the Key to Achieving Project Aims



Understand potential hazards

- Flood
- Earthquake
- Epidemic/Pandemic

Understand what is at risk

- People
- Economy

Understand potential impacts

- Vulnerability (age/wealth/gender) including lessons from past events
- Economic loss: impact on lives and wealth

Understand what might change

- Population/Wealth
- Climate
- Resilience

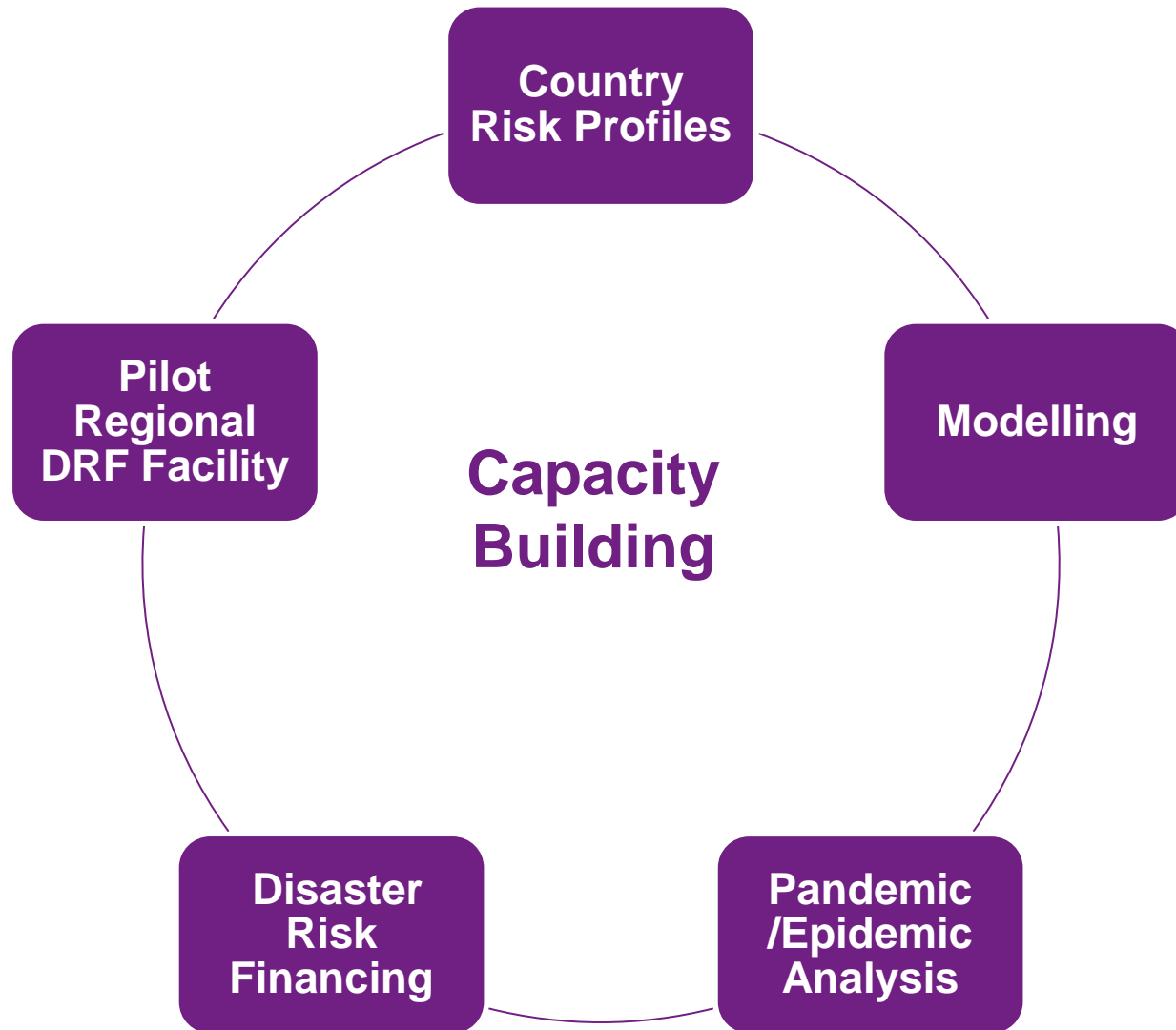
Optimize country disaster financing

- Review current arrangements
- Design optimal mix, including risk transfer component (insurance or capital market)

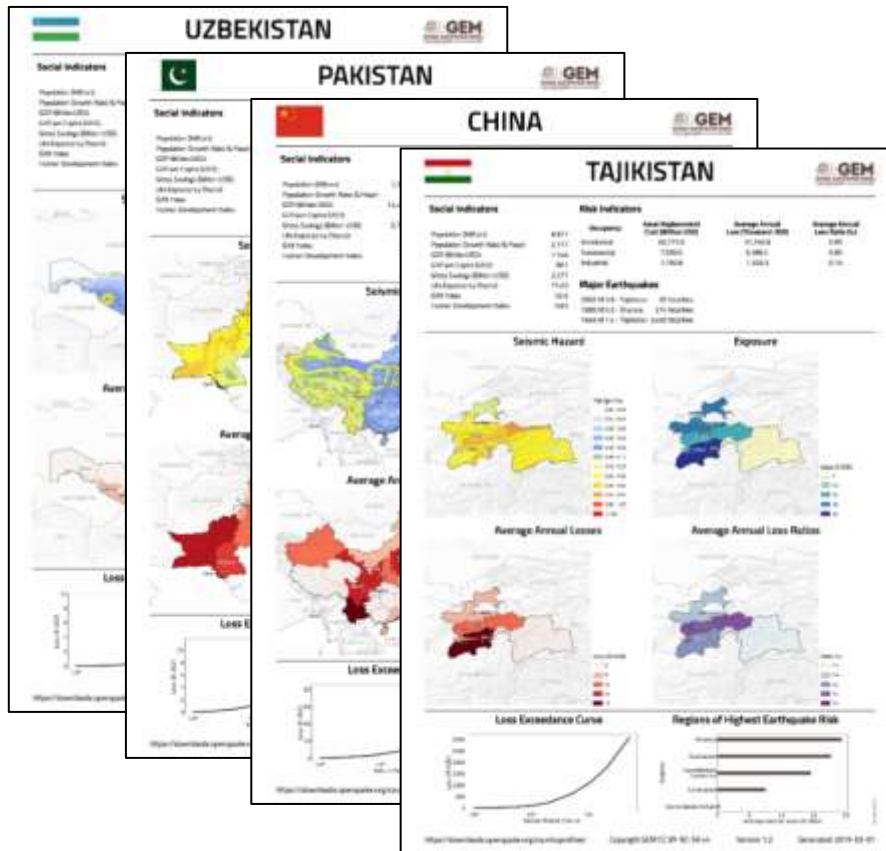
Design regional disaster insurance facility

- Product offering: including price optimisation
- Structure, operation, capitalisation and protection

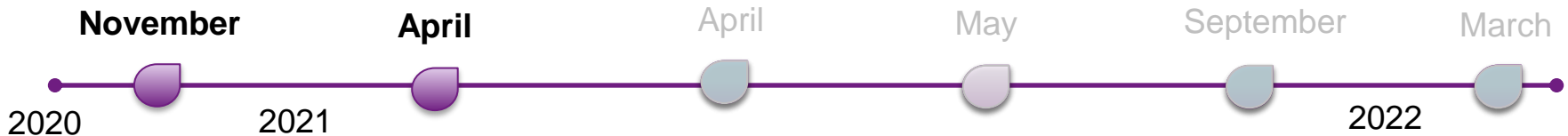
What the Project Will Deliver



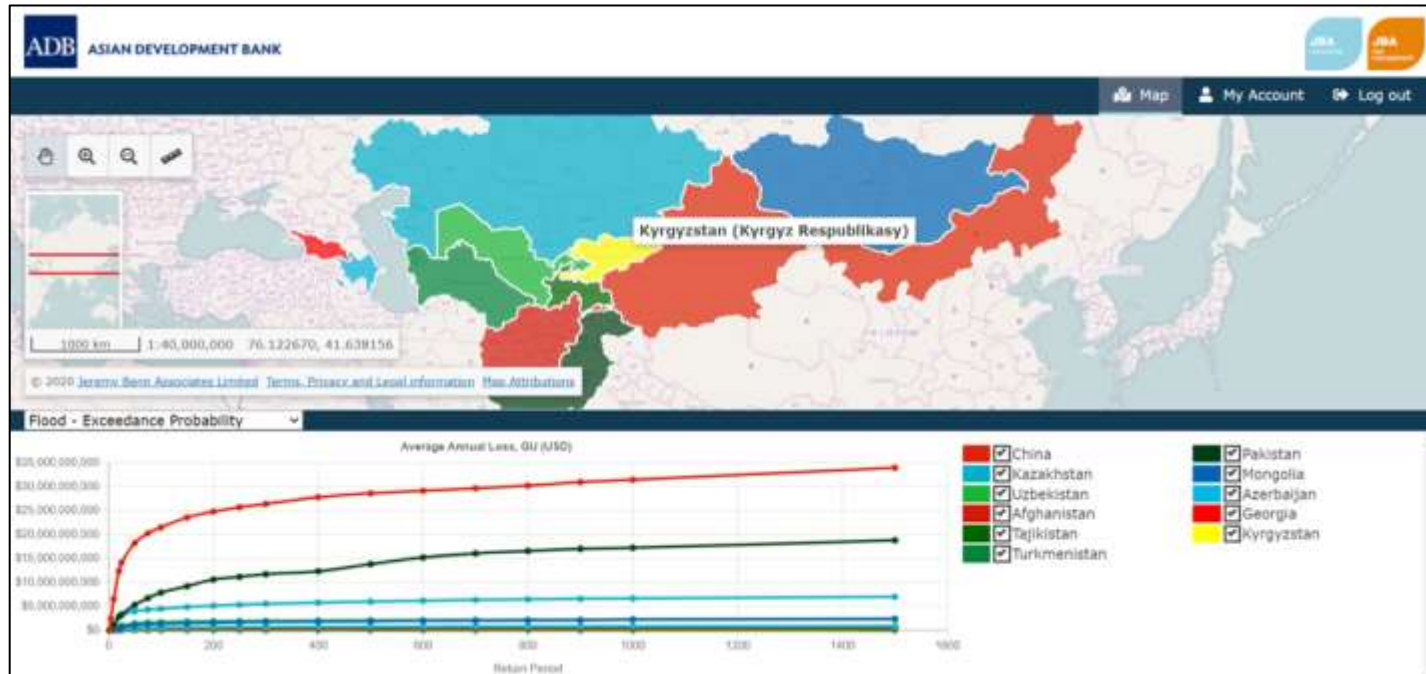
Country Risk Profiles: Understanding Risk



- Individual reports on earthquake and flood risk profiles including assets at risk; stochastic risk modeling analysis; and aggregated exceedance probability curves
- Demonstrate pandemic/epidemic impacts including case count, mortality, and duration



Modelling 1: Client Engagement Tool

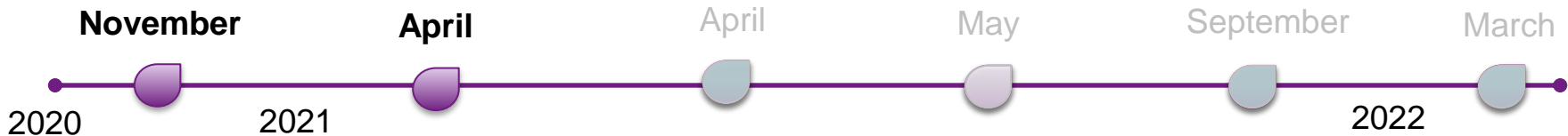


Help users view, explore, analyze and interact with hazard and risk data

Allow sensitivity and comparative DRF strategy analysis

Show impacts of climate change / population change

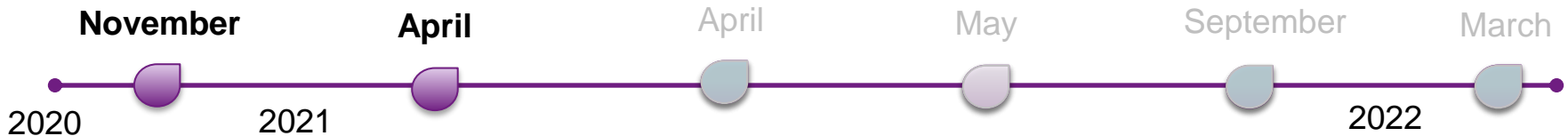
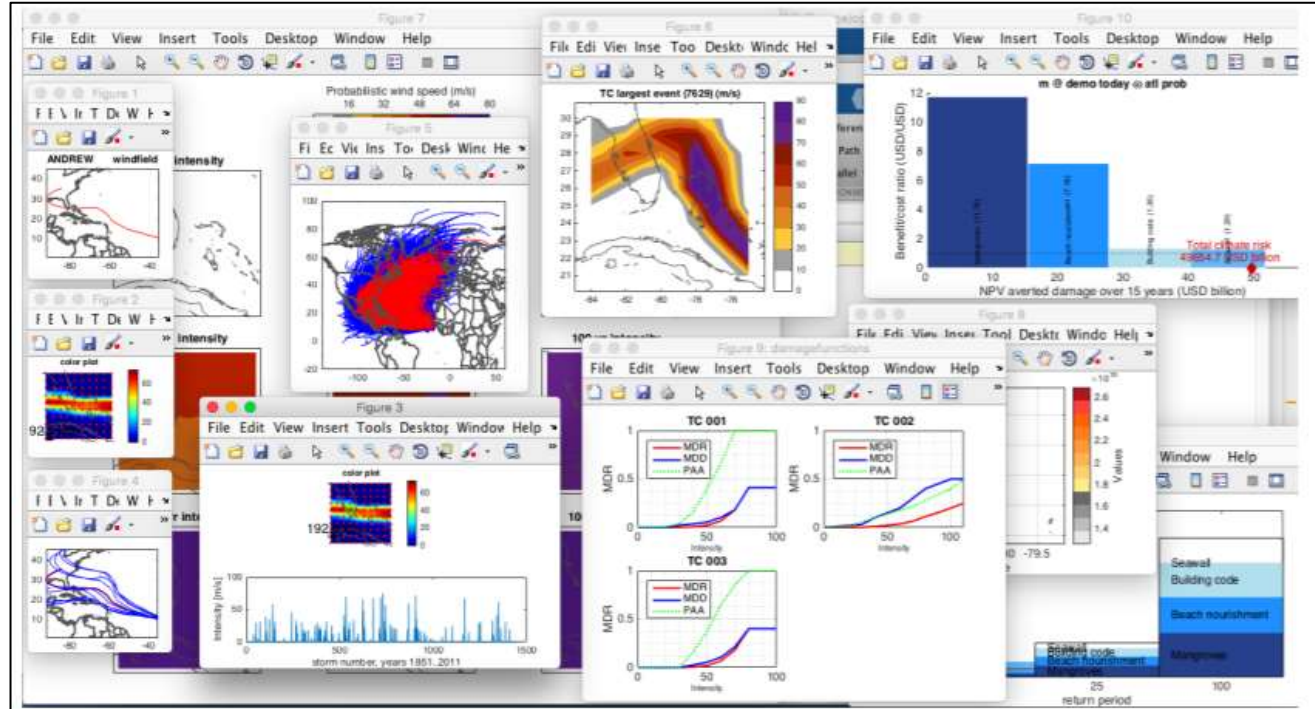
Preliminary cost/benefit value of proposed risk adaptation measures



Modelling 2: Climada



The team will populate a catastrophe model in open source software Climada to allow more detailed assessment of risk management options / exposure changes



Pandemic/Epidemic Analysis1: Reporting



Pandemic Risk Profiles

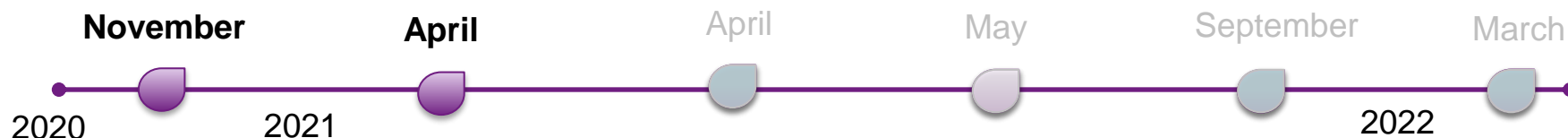
- Infectious disease risk profiles and scenario events at national and regional levels by key pathogen group

COVID-19 Potential Outcome Scenarios

- Report on the frequency-severity distribution of outbreaks of infectious diseases in CAREC countries, the base-case and alternative trajectories of the COVID-19 outbreak and the benefit of effective emergency response and risk management plans

Pandemic + natural hazard clash analysis

- Report on the quantification of the interaction of outbreaks of infectious diseases with other perils and the benefit of effective emergency response and risk management plans

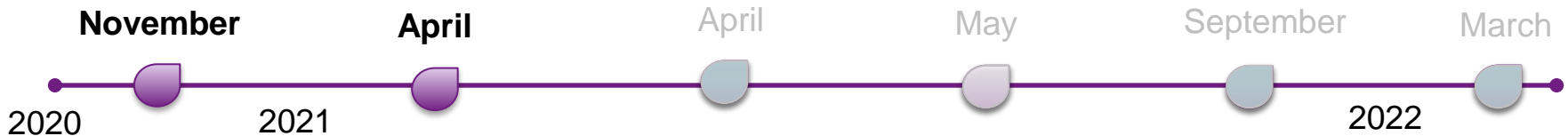
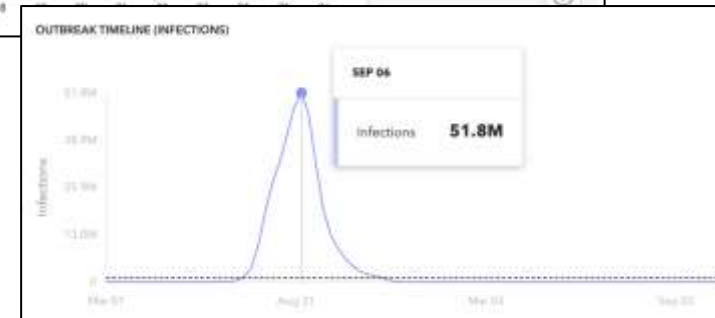
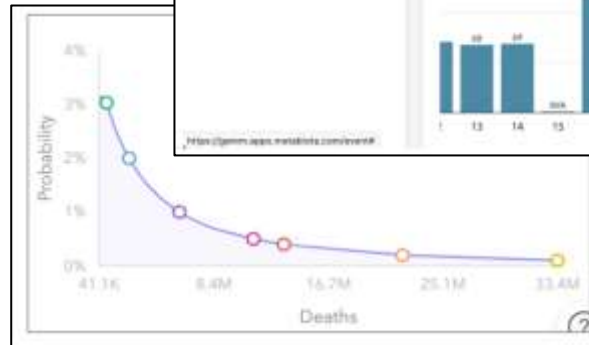
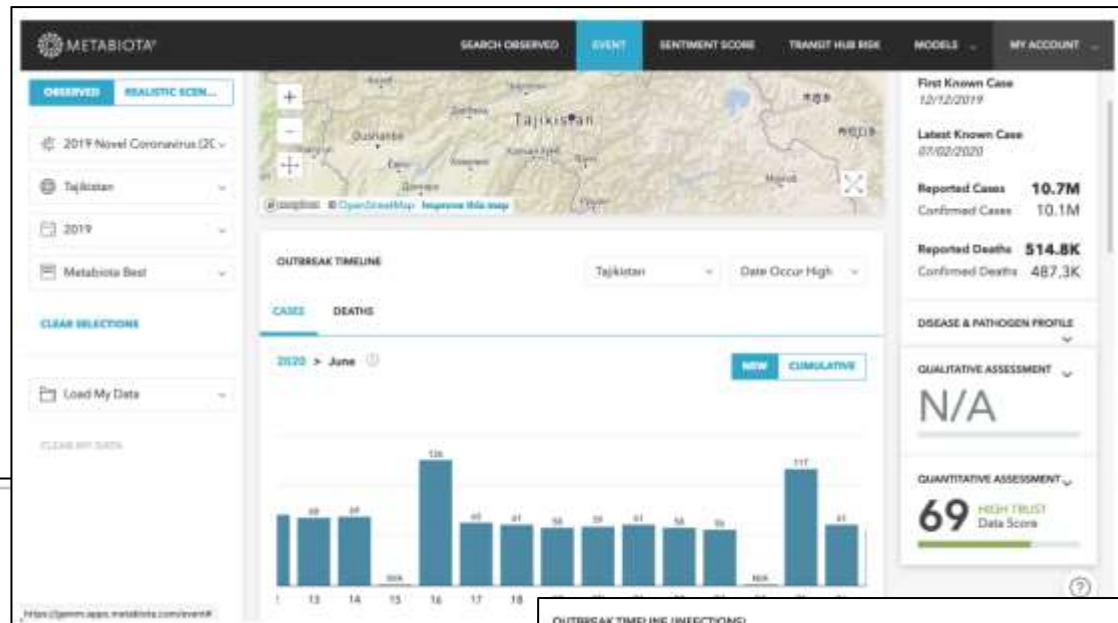


Pandemic/Epidemic Analysis 2: Monitoring / Modelling

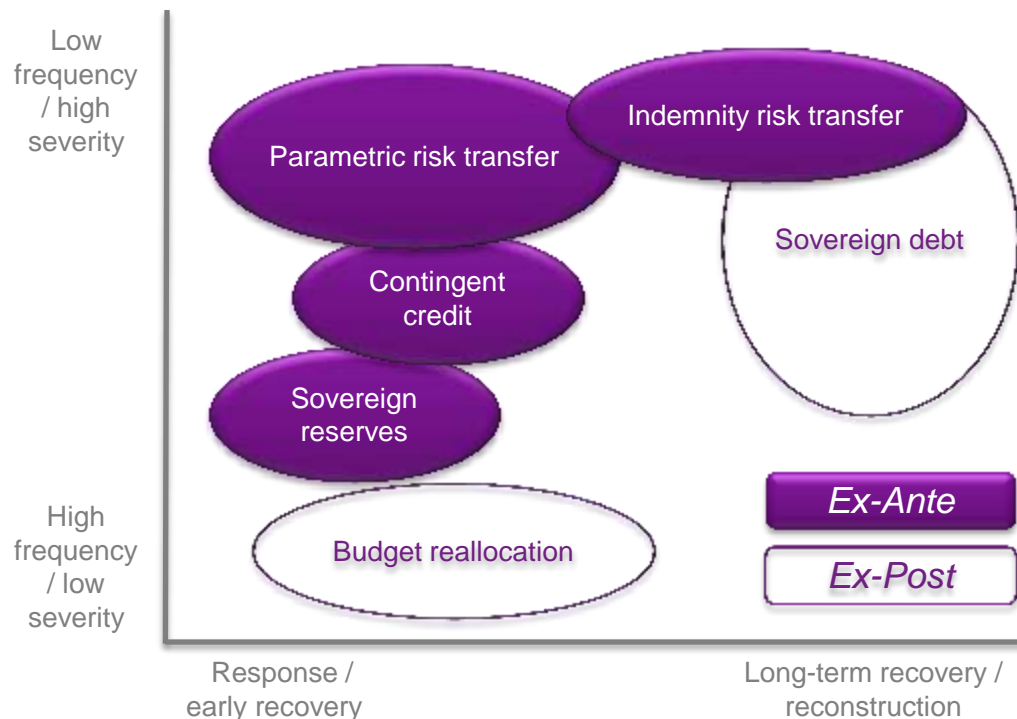


**Real Time
Outbreak
Monitoring**

**Future Impact
Assessment
including
Economic
Analysis and
Probability
Modelling**



Disaster Risk Financing: Review / Needs Assessment

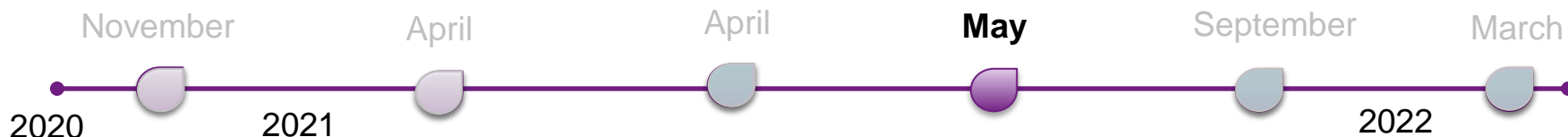


Layered approach to risk finance

- Provides flexibility
- Different mechanisms to respond to different severities of events and different timescales

Relatively small amounts of financing available and deployed quickly often significantly reduce the overall negative financial impact of shock events

Innovative and traditional options will be assessed with the aim of identifying the optional mix of each country

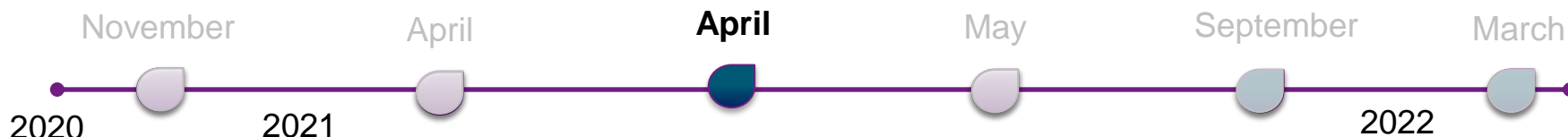


Pilot Regional DRF Facility 1: How

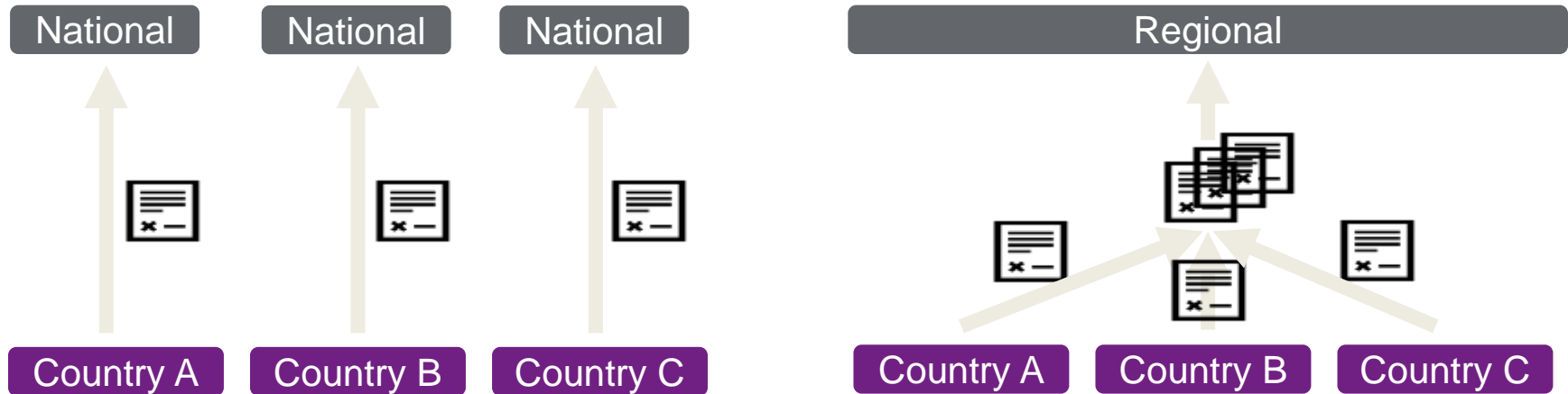


Country involvement in the pilot will depend on a number of factors

- Willingness /political sponsorship within member states
- Balance of territories exposed to flood, earthquake and consideration of Epi-/pandemic risk
- Availability and access to exposure and vulnerability data
- Current level of risk understanding and institutional preparedness within member state
- Economic environment and legal/regulatory framework
- Ability to pay premium



Pilot Regional DRF Facility 2: Why



Lower premiums:

- Insurers profit and contingency loads held within the pool

Stable premiums

- Capitalised by ADB loan, so not hostage to pricing demands of insurers

Lower expenses

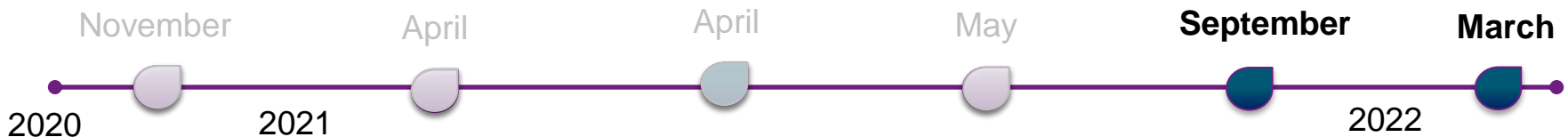
- Costs shared between countries as well as knowledge and experiences

Greater Ownership

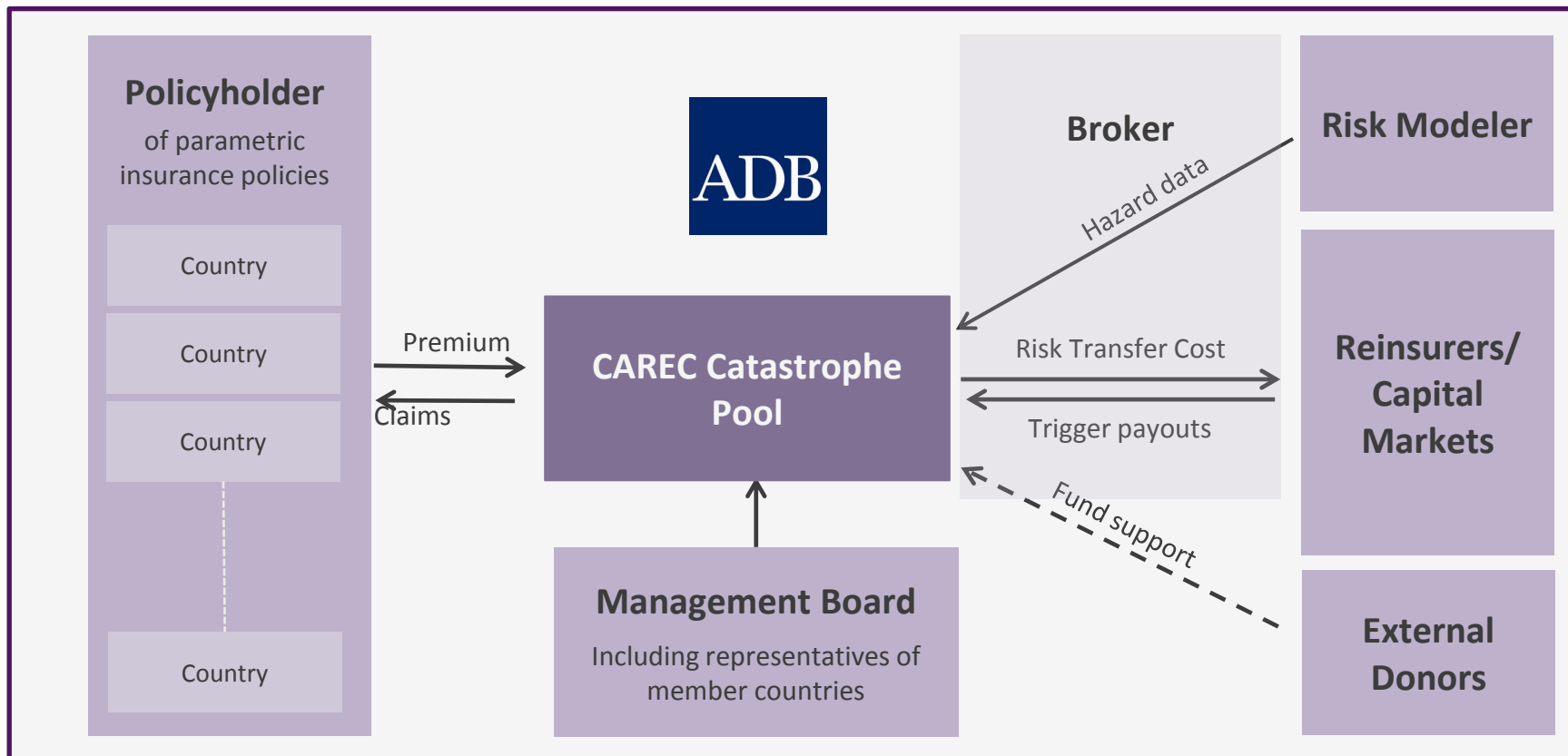
- Members have say in the management of the pool

Regional Cohesion

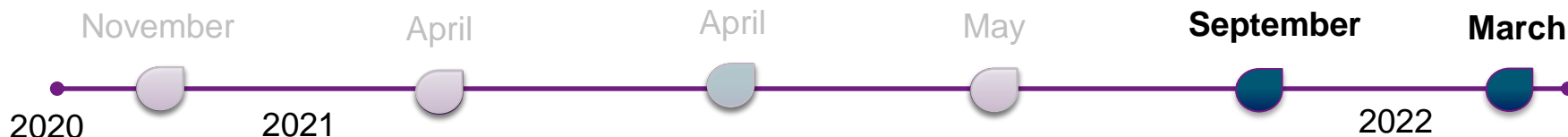
- A platform and catalyst for regional co-operation and co-ordination



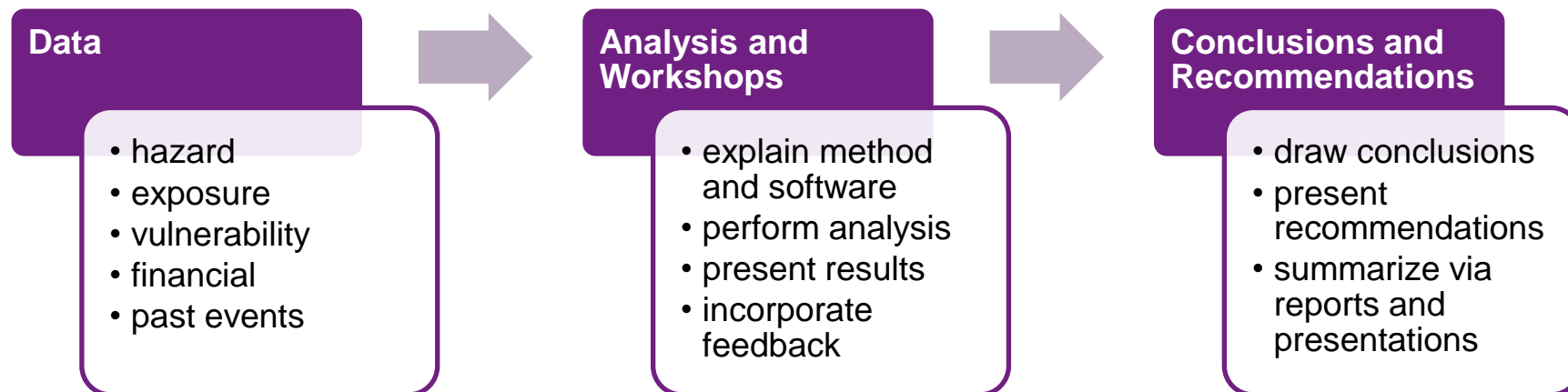
Pilot Regional DRF Facility 3: Example



Project team experience includes:



Capacity Building: The Project Core



At each stage we aim to work closely with CAREC members:

- Better understanding leads to better solutions
- Provide tools, methodologies and advice to determine optimal disaster risk finance
- Provide tools, methodologies and advice to assess the cost and benefit of proposed risk reduction measures

It is vital that CAREC members own:

- The problem
- The analysis
- The solution

Concluding Observations



Countries' engagement and ownership is key

- Vital to actively engage with government officials and national experts
- Capacity building is core to the project
- Tools for hazard visualisation, stress testing and disaster risk finance design help this process

Hazards are largely common to the region

- But solutions must meet needs of each country
- Whilst building upon the strengths and benefits of regional co-operation

Our objectives (and how success will be measured)

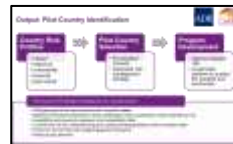
- Better risk understanding
- More resilient economies and safer populations
- Creation of a regional disaster risk transfer facility that provides a sustainable platform to protect the peoples and economies of the CAREC region

Next Steps – Key Dates

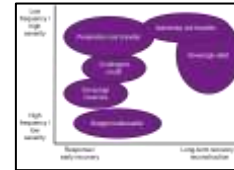


Initial Findings including report on interaction of outbreaks of infectious diseases with other perils

Final Risk Profile Reports and Risk Modelling Tool



Confirmation of Pilot Countries for further scheme development



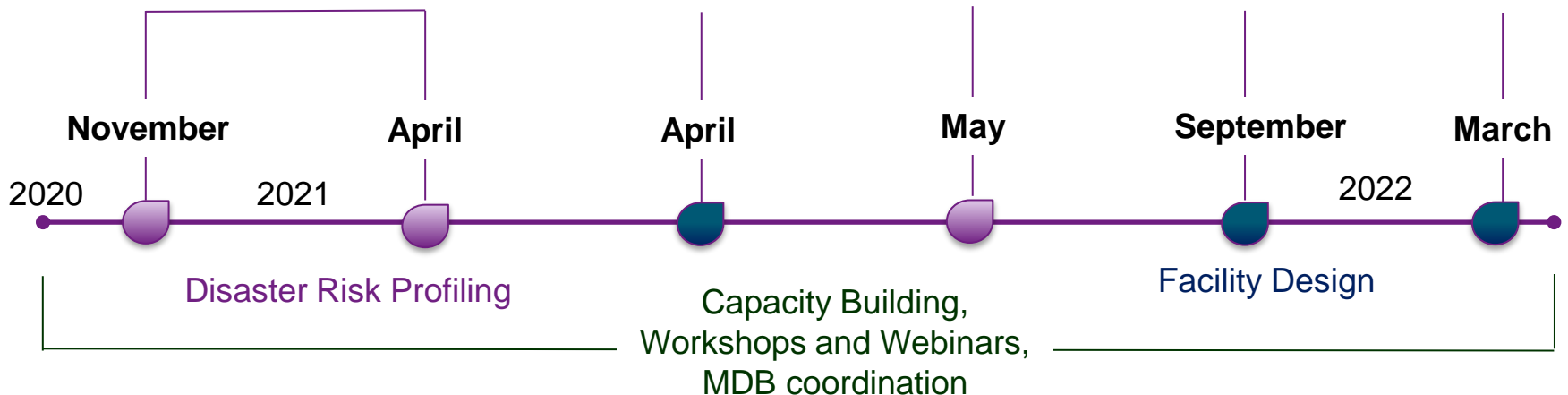
Report on quantification of the protection gap and cost-benefit analysis of disaster risk reduction, retention and transfer measures



Report addressing financial, modeling, structural, legal and documentation requirements allowing the issuance of a cat bond by ADB



Report on operational and financial framework for the regional disaster risk transfer facility



Key Questions for Guidance



Expectations from the Project

- What are your country's expectations from the project? Based on your reading of the inception report, what would need to happen for your country to consider this project a success?

Disaster Risk Finance

- What are your country's existing disaster risk finance gaps? What in your opinion is your country's capability to access liquidity after the next disaster?

Disaster Risk Reduction

- Does your country have enough information to properly assess the relative impacts of different disaster risk reduction measures?

Pandemic / Epidemic Preparedness and Response

- What in your opinion would be the socioeconomic impact in your country if a natural hazard strikes in an area currently affected by COVID-19?
- What lessons has the COVID-19 experience highlighted in terms of disaster preparedness and response effectiveness? If another epi-/pandemic strikes in 2021, what kind of actions would you take to improve efficiency?



Thank You



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