



GREEN
CLIMATE
FUND

GCF REGIONAL DIALOGUE

with AFRICA

Windhoek, Republic of Namibia
6–10 November 2023

#InspireMoreClimateAction



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GCF CIEWS Strategic Programming

Joseph Intsiful, Bapon Fakhruddin, Amgad Elmahdi,
Demetrio Innocenti, Freddy Sotto (DMA)

Kevin Horsburgh (OED)

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In 2022, 80 climate extreme events, over US\$ 8.5 billion economic damages, 110 million people directly affected, 5 000 fatalities

EWS provide more than a tenfold return on investment. 24 hours' notice can cut ensuing damage by 30 per cent.
 GCA estimates that EWS investment of US\$800 million in developing countries would avoid losses of \$3 to 16 billion per year.

Challenges on Resilience in Africa



- Africa's adaptation challenge will grow substantially; the region is already heating up twice as fast as the rest of the globe
- The region appreciates the challenge:
 - Established an Agenda 2063 goal (1.7) and priorities for environmentally sustainable and climate resilient economies and communities
 - up to 84% of UNFCCC party countries have planning instruments (adaptation plans, strategies, laws, and policies) in place; and over 80% have submitted updated NDCs, outlining clear adaptation priorities
- The gap in the financing needed to turn these plans into action continues to widen:
 - Adaptation costs due to past emissions were USD 7-15 billion annually by 2020; could reach USD 50 billion per year by 2050.
 - Africa gets only 12% of the financing it needs to adapt to the changing climate; and faces an adaptation finance gap of \$265 billion by 2030 (*after contributing up to \$66 billion from domestic budgets*).
 - Cumulatively, climate finance in the region needs to grow by up to 9-times to meet the region's 2030 climate goals.
- Yet, adaptation investment opportunities are vast and the return on investment of adaptation actions is high:
 - every \$1 invested in adaptation actions in Africa unlocks a return of between \$2 and \$10.

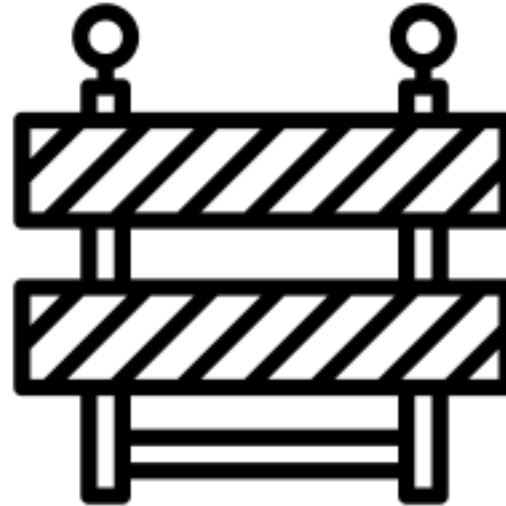
Barriers



Lack of enabling environment for **institutional effectiveness**



Lack of coverage and scale for effective service delivery in terms of quantity and quality of **hard infrastructure** and inadequate **soft infrastructure** for ensuring delivery and uptake of CIEWS.



Uncoordinated interventions limit the effectiveness of existing support to developing countries.



Limited governmental finances and **budgets** allocated to NMHS & NDMA.



The **complexities of CIEWS forecasting**



Market barriers to creating enabling conditions

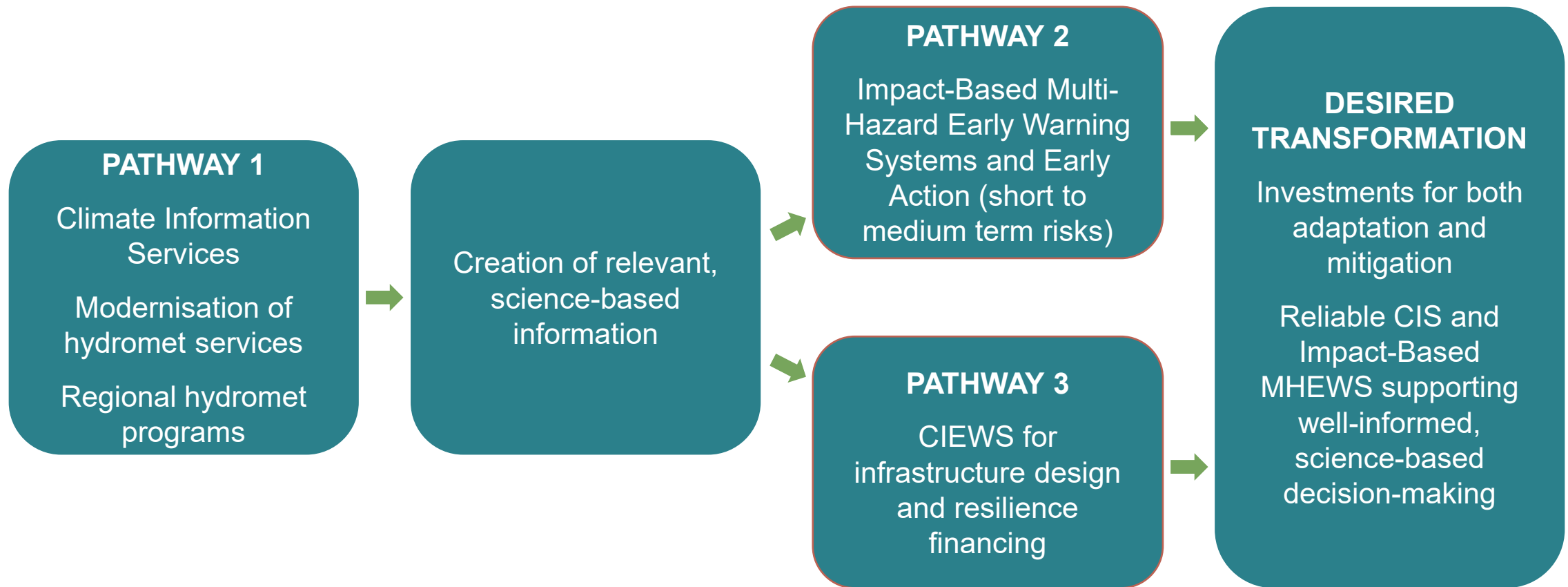


GCF CIEWS PORTFOLIO AND PIPELINE



- **Without GCF support**, the majority of developing countries will not be able to establish and operate the fit-for-purpose hydromet services required to achieve this paradigm shift
- **GCF Portfolio:**
 - **Global** Over USD 932 million, 62 projects, will benefit 386 million people)
 - **Africa** (LDC USD 361.7M, SIDS USD47.9 M, Non-LDC USD178.7 M Total USD565.4 M)
- **Active Africa pipeline** of over **USD 663 million, 49 projects** (including 4 in SIDS)
- **Nature of the portfolio and pipeline**
 - Not coordinated, regionally, thematically
 - All grant based, and no private sector participation
 - Gaps remain unfilled – Demand far exceeds supply
 - May have issues of sustainability
 - Not prioritized (most vulnerable vs advancement)

Conceptual Framework for the CIEWS Paradigm-Shifting Pathways



CIEWS Sectoral Guide		Transformational planning & programming	Catalyzing climate Innovation	Mobilization of finance at scale	Coalitions and knowledge to scale up success
Paradigm-shifting pathways	Climate Information Services	<ul style="list-style-type: none"> •Support establishment of National Framework for Climate Services to strengthen generation and uptake of climate services •Mainstream CIS in policies and plans across all priority sectors •Enhance CIS for projects across the 8 result areas, NAPs, NDCs and national development plans • National and regional optimisation of investments in hydromet 	<ul style="list-style-type: none"> •Operationalise GFCS at scale •Enhance hydromet service provision from basic to full, optimising infrastructure through regionalisation and gap-filling. •New public-private partnership business delivery models •E-infrastructure to reduce cost and enhance efficiency •Create enabling environment for growth in hydromet services 	<ul style="list-style-type: none"> •Optimise GCF financial instruments to match needs of beneficiaries •Innovative financing solutions (including blended finance) •Enhance resource mobilise from SOFF, GEF, AF •Ring-fence national climate funds and other funding sources for hydromet services •Scale up government budgetary allocation for hydromet services 	<ul style="list-style-type: none"> •Knowledge platforms for sharing best practices in modernisation of climate services •Institutional collaborative platforms to enhance knowledge in CIS, digital technologies and business delivery models • Identify best practices and lessons learned to strengthen political, policy and governance capacity in hydromet services
	Impact-Based Multi-Hazard Early Warning Systems and Early Action	<ul style="list-style-type: none"> •Integrate IB-MHEWS in planning, policy and decision making at all levels •Enhance mechanisms for strengthening capacity at all stages of IB-MHEWS value chain •Community engagement in designing and implementing forecast-based action at all levels •Project pipeline development 	<ul style="list-style-type: none"> •Make fit-for-purpose IB-MHEWS widely available by strengthening capacity •Enhance community-based MHEWS through capacity building of communities, and institutions •Pilot disaster communication systems using digital technologies •Enhance mechanisms for delivering and scaling up FbA 	<ul style="list-style-type: none"> •Innovative financing solutions (including blended finance) •Scale FbA through dedicated funds, insurance and market-based mechanisms, standard resource allocation processes •Embed FbA in financing and delivery systems at scale, working with private sector and informal non-banking institutions 	<ul style="list-style-type: none"> •Institutional collaborative platforms for climate-informed surveillance systems, assessments, and policies •Community knowledge platforms to integrate indigenous knowledge •Knowledge brokering, knowledge management, evaluation and learning, impact evaluation and feedback in IB-MHEWS and FbA •Evidence base for FbA
	CIEWS for Infrastructure Design and Resilience Financing	<ul style="list-style-type: none"> •Strengthen the use of digital technologies for climate investment and financial decisions •Enhance the use of climate analytics for managing financial risks in public sector markets. •Enhancing the use of climate analytics for infrastructure design •Project pipeline development 	<ul style="list-style-type: none"> •Promote CIEWS for infrastructure design and implementation •Promote digital technologies and enabling environment for climate investment and financial decisions •Establish market place for digital technology in climate finance •Enhancing the use of climate analytics for managing financial risks 	<ul style="list-style-type: none"> •Scale up uptake investments in CIEWS for infrastructure design •Scale up financing of climate analytics and digital technologies •Digital technology startup funding through crowd-sourcing •Climate analytics startup funding for managing investment and financial risks in private sector through crowd-sourcing 	<ul style="list-style-type: none"> •Establish knowledge platforms for sharing best practices in digital technologies and climate analytics for climate finance and investments •Establish Innovation hub for climate analytics and digital technologies in climate finance

Matrix of actions across the drivers of paradigm shift (menu of potential sub-project activities)

Conceptual Framework of CIEWS Programmatic Approach

A standardized approach to scale up CIEWS investments from local to regional scales

Technical Assistance Fund:

A Grant-based finance supported by multiple donors/investors to strengthen enabling environment for designing and implementing CIEWS/resilience projects/programmes - Readiness, country programming, PPF

Desired Transformation

Reliable CIS and Impact-Based MHEWS supporting well-informed, science-based planning and decision-making

CIEWS Outputs

Output 1

Output 2

Output 3

Output 4

Output 5

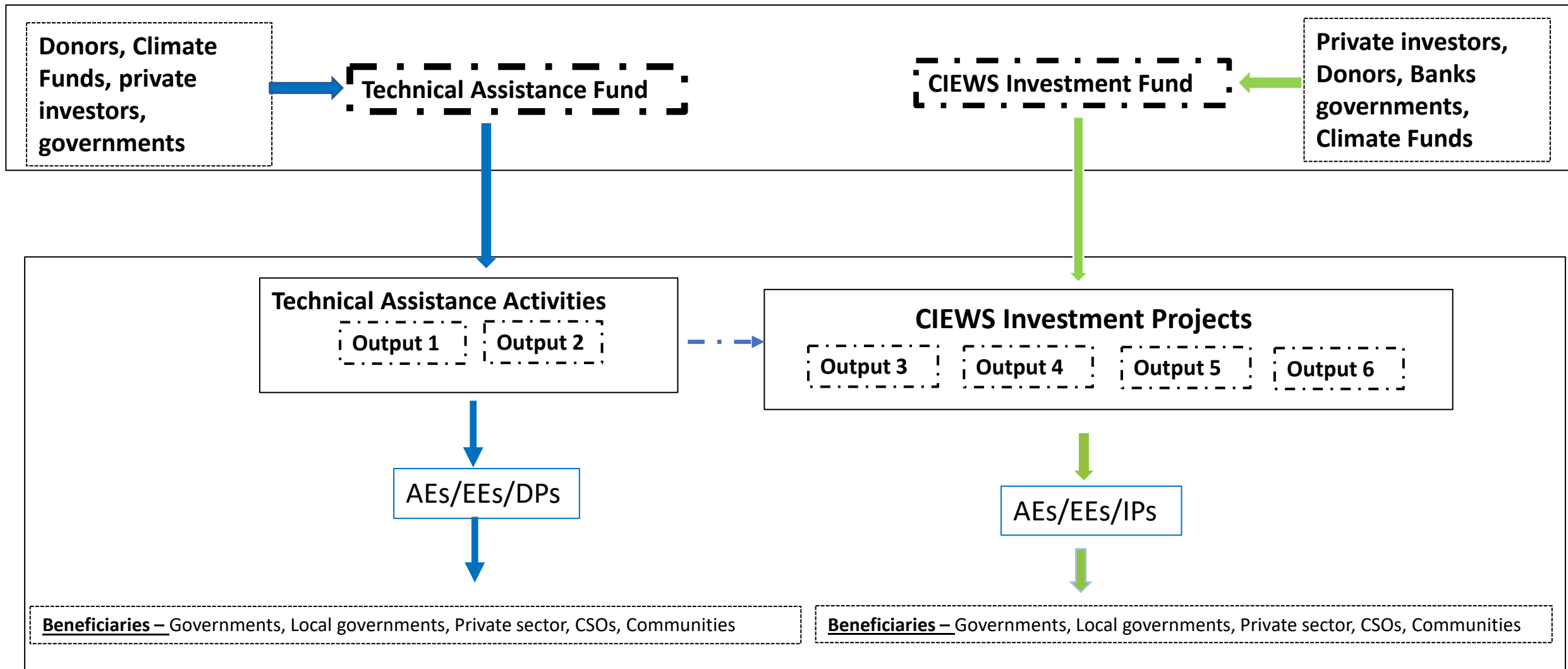
Output 6

CIEWS Investment Fund:

Innovative financing, including blended finance architecture supported by GCF and other climate funds, multiple donors, AEs, public and private sector investments to implement CIEWS projects/programmes.

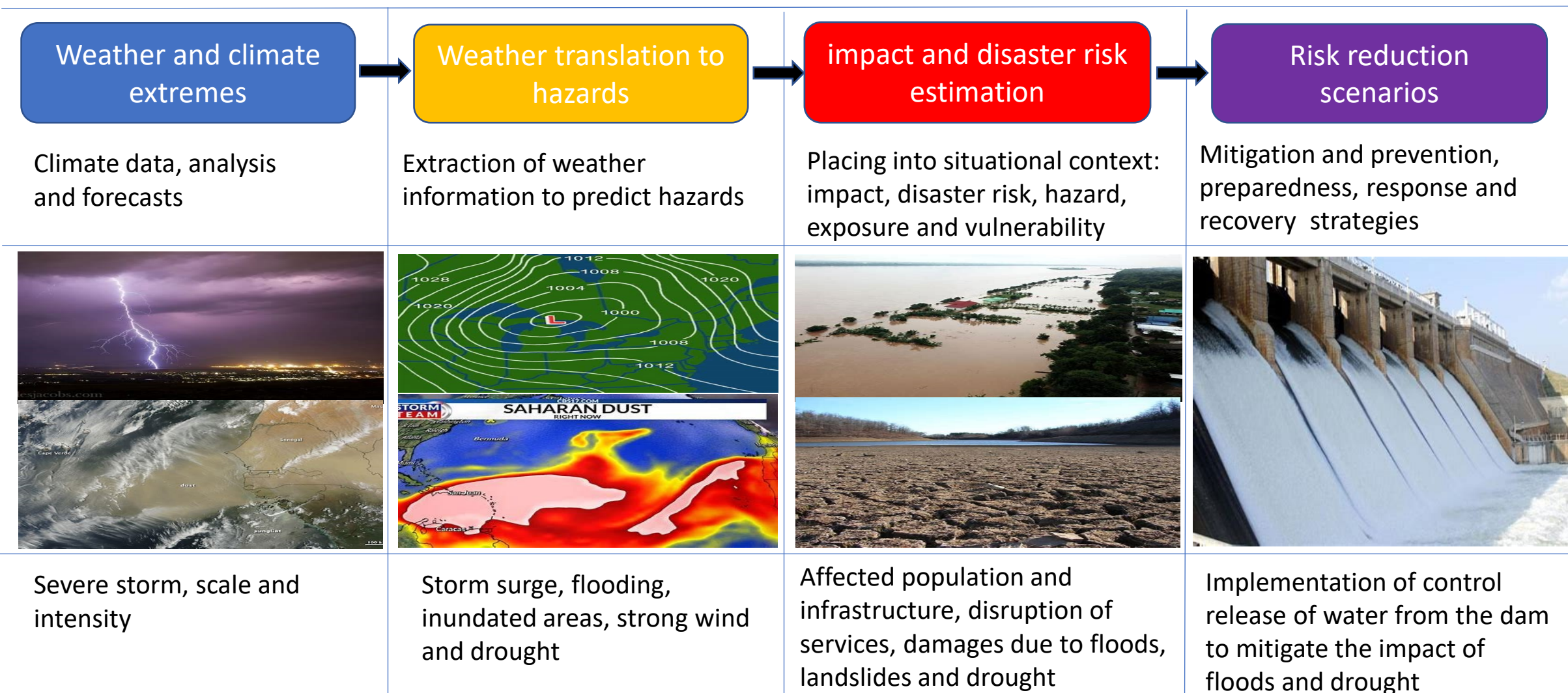
Output 1 – Strategic planning & programming for effective programme development, implementation and knowledge brokering
Output 2 – Enhancing policy and political systems and processes to promote uptake and investment in CIEWS
Output 3 – Innovative business models and financing architecture for CIEWS investments
Output 4 – Making climate services widely available by modernizing national hydromet services and regional climate centers
Output 5 – Making Impact-Based Multi-Hazard Early Warning Systems and Early Action Widely Available for resilient development
Output 6 – Enhancing the uptake and investment of CIEWS for infrastructure design and resilience financing

Proposed Programme structure



Menu of Potential Programmes/Projects

Application of the three paradigm-shifting pathways in Integrated Water Resources Management



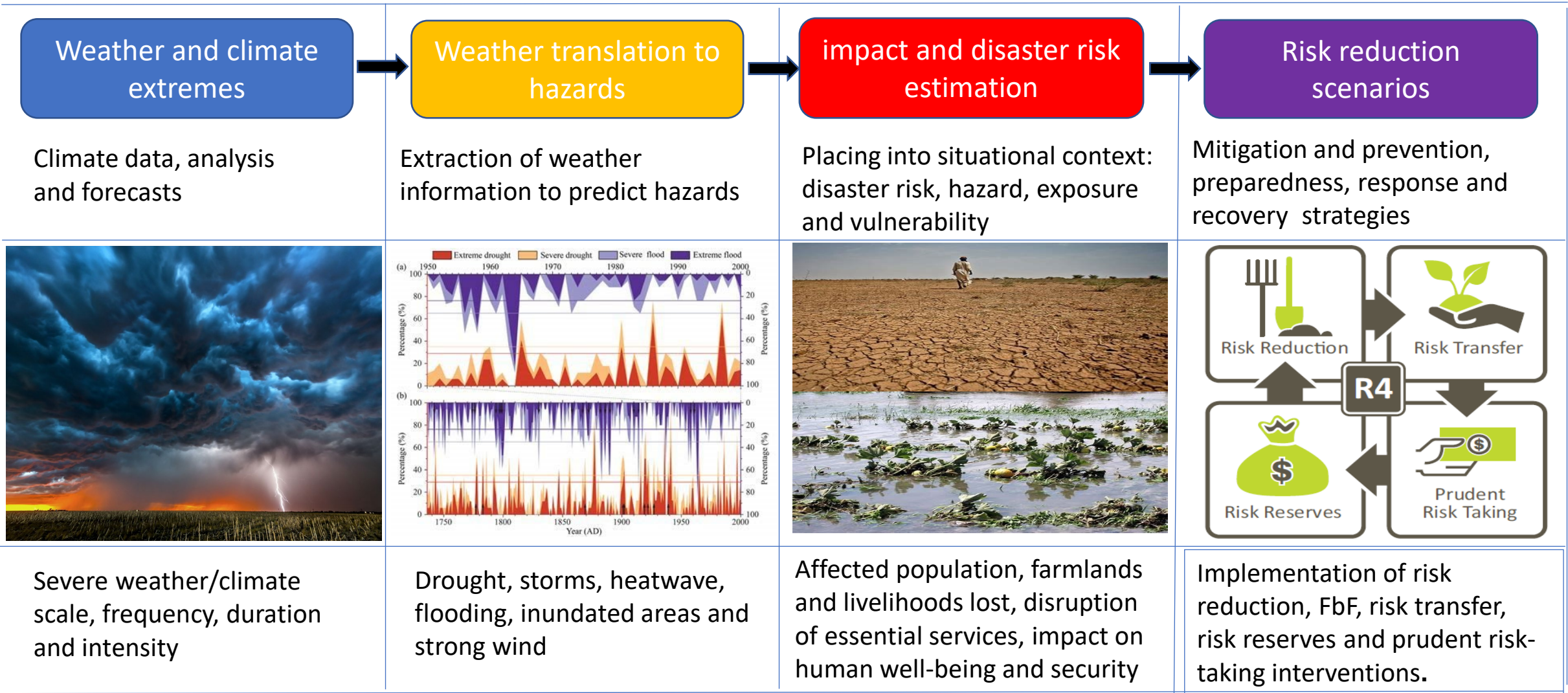
← **Climate services (pathway 1)** →

← **Multi-hazard early warning systems (pathway 2)** →

← **CIEWS for infrastructure design and resilience financing (pathway 3)** →

Application of the three paradigm-shifting pathways in low emission and climate-resilient livelihoods

Sequencing of forecast-based financing and insurance as part of a broader integrated risk management strategy



← Climate services (pathway 1) →

← Multi-hazard early warning systems (pathway 2) →

← CIEWS for infrastructure design and resilience financing (pathway 3) →

Application of the three paradigm-shifting pathways in Integrated coastal zone management

Weather and climate extremes

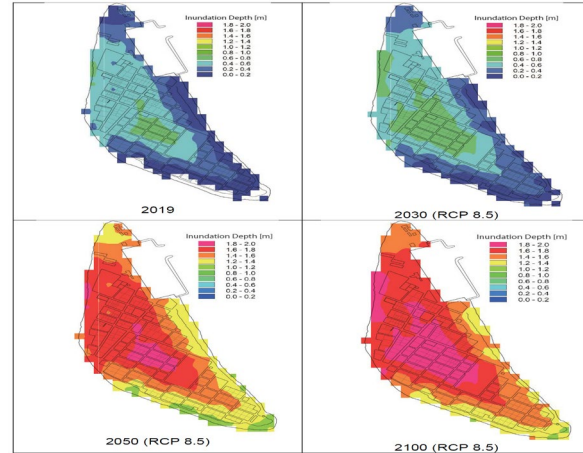
Climate data, analysis and forecasts



Severe storm, scale and intensity

Weather translation to hazards

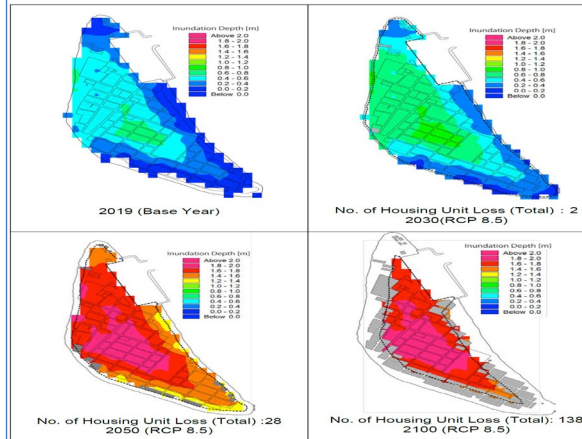
Extraction of weather information to predict hazards



Storm surge, flooding, inundated areas and strong wind

Impact and disaster risk estimation

Placing into situational context: disaster risk, hazard, exposure and vulnerability



Affected population, number of houses/infrastructure unit lost, disruption of services, damages from beach erosion/storm surge

Risk reduction scenarios

Mitigation and prevention, preparedness, response and recovery strategies



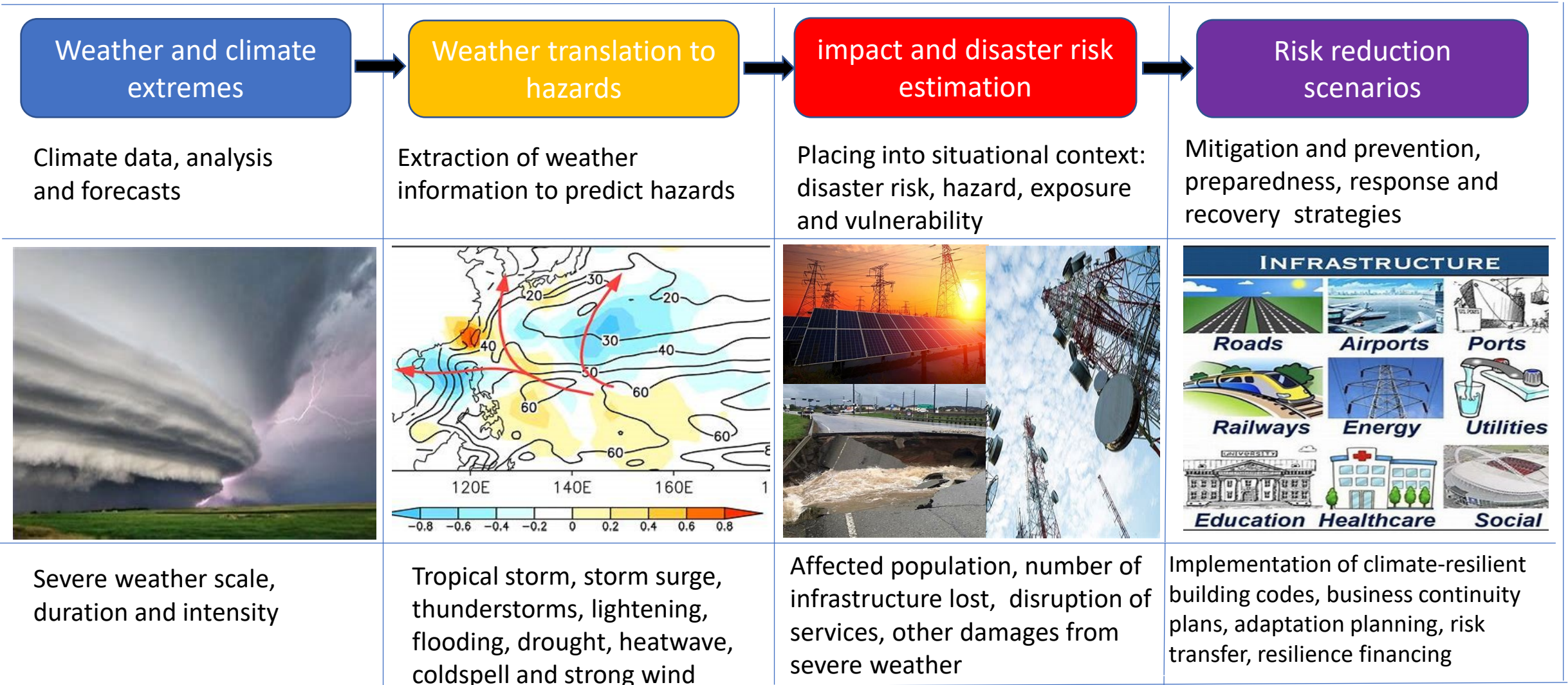
Implementation of beach nourishment, groins, reclamation and perimeter revetment interventions.

Climate services (pathway 1)

Multi-hazard early warning systems (pathway 2)

CIEWS for infrastructure design and resilience financing (pathway 3)

Application of the three paradigm-shifting pathways in infrastructure resilience



← Climate services (pathway 1) →

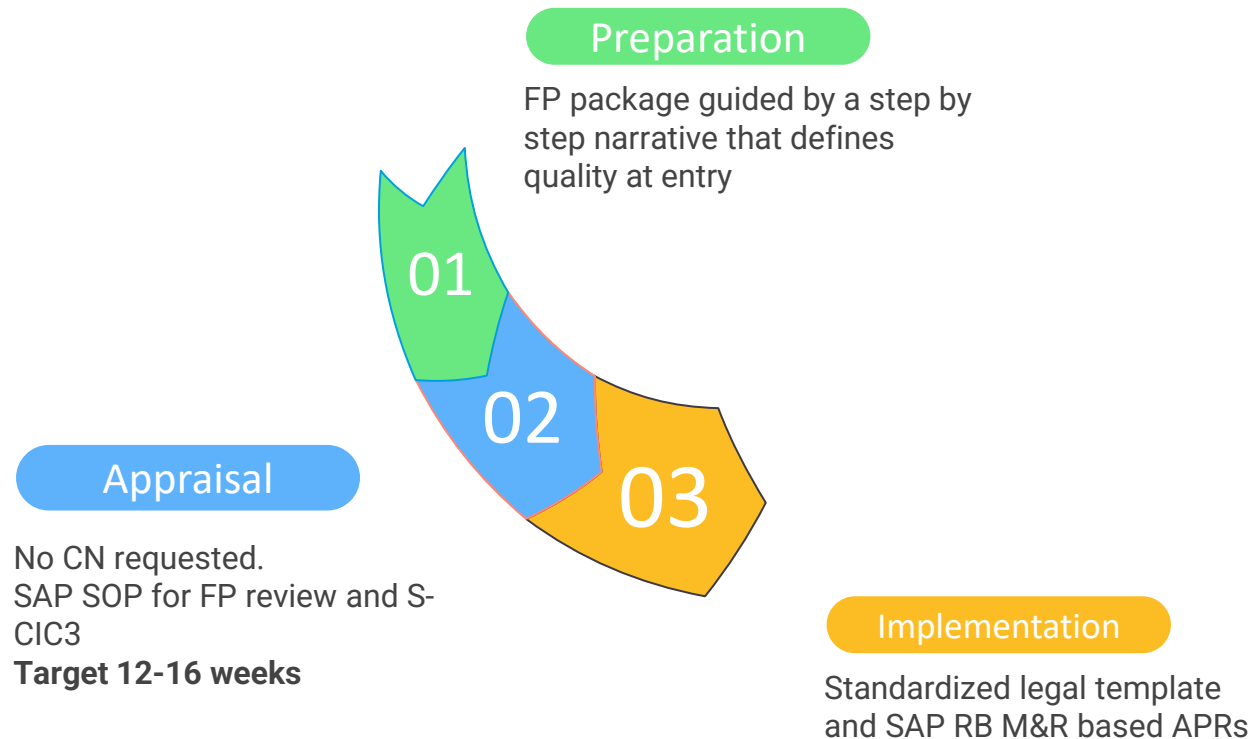
← Multi-hazard early warning systems (pathway 2) →

← CIEWS for infrastructure design and resilience financing (pathway 3) →

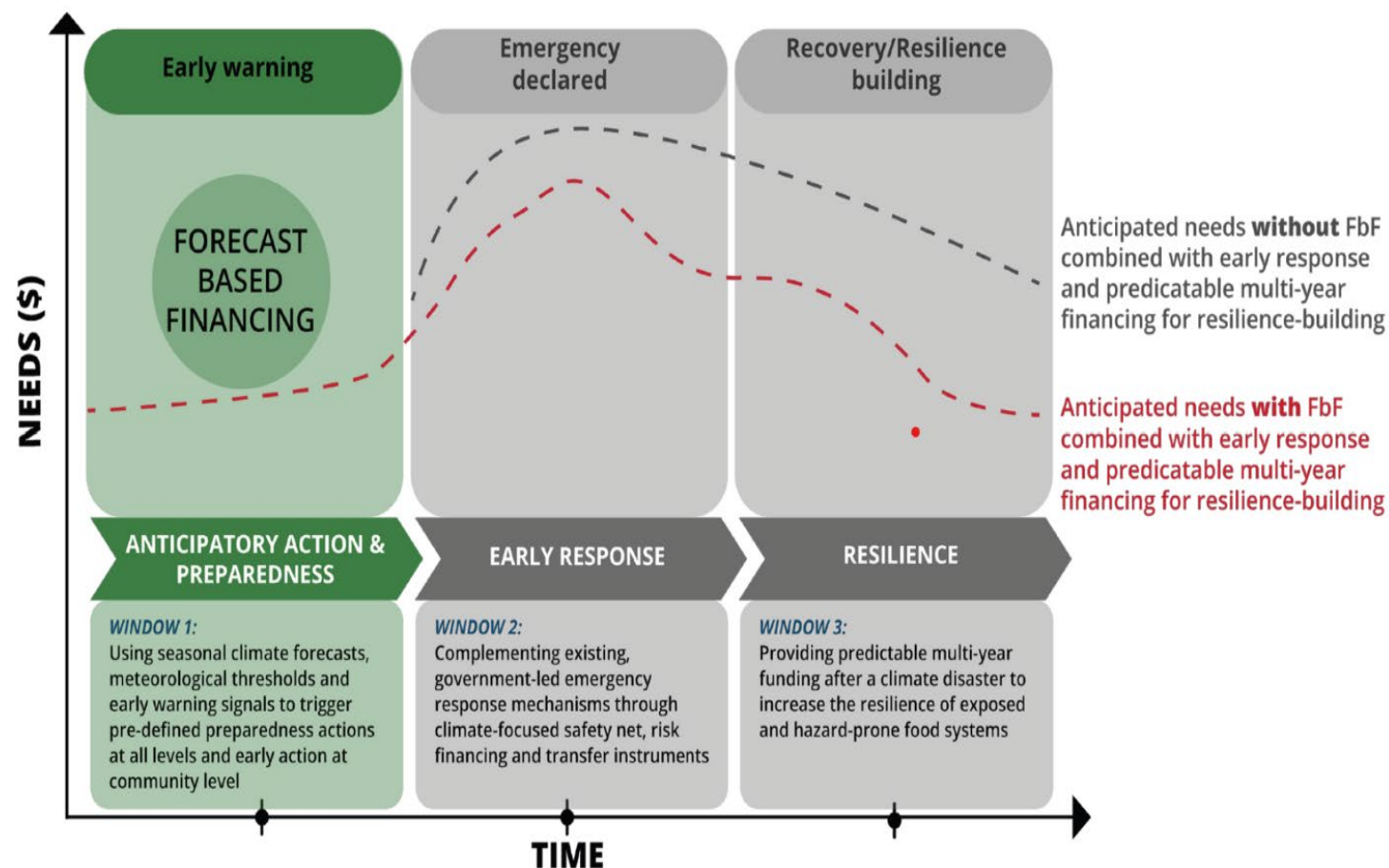
Acceleration of CIEWS Sub-Projects via SAP



SAP CIEWS Guided Template



Building the Risk Financing Component



- Limited actors in the FbF space in Africa
- Need for more ideas for resilience financing beyond Forecast based Finance (FbF)
- **Opportunity to sequence FbF and other instruments:**
 - Anticipatory action and preparedness
 - Early response following a declared emergency
 - Recovery and Resilience building
- Exploring opportunities to embed ARC (and partners) in all CIEWS projects in Africa to leverage additional finance, lessons and best practices from ongoing work to maximize impact (e.g. anticipatory insurance)
- Early movers: Lessons from the DBSA SADC AIP project

Africa Climate Resilience Support Programme to accelerate GCF-2 CIEWS programming over 2024-2027



In total up to 8 resilient **projects** approved covering at least 8 **countries**. To be implemented by various **African DAEs, AEs and partners**

Project Preparation Grant

Up to USD 1.5 million

- Will develop the full funding proposal for GCF consideration, including feasibility studies, consultations, and baselines
- Will help develop the zero draft financing plan to accompany the Early Warning for All implementation strategy

To be approved by GCF By September 2024 and can be announced at the 2024 AU Summit to build the partnerships and crowd in donors

Project Incubation Facility

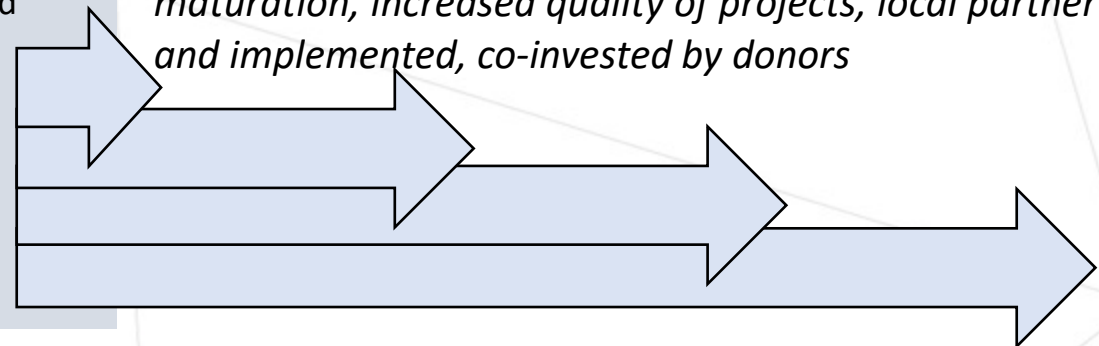
- Yearly or twice-yearly meetings among countries and potential partners
- Guidance and support to interested countries and partners to develop project proposals for GCF or other donors
- Crowd in co-investors
- Support in prioritization, coordination and optimization
- Overall monitoring
- Build on lessons learned, good practices

To be approved by GCF in early 2024. Implementation to follow immediately

GCF project acceleration

2024	2025	2026	2027
<ul style="list-style-type: none">• ACR-COP Facility• 2 projects (including multi-country programmes) for GCF Board approval	<ul style="list-style-type: none">• 2 projects (including multi-country programmes) for GCF Board approval	<ul style="list-style-type: none">• 2 projects (including multi-country programmes) for GCF Board approval	<ul style="list-style-type: none">• 2 projects (including multi-country programmes) for GCF Board approval

Result = Systematic and technically sound, predictable project maturation, increased quality of projects, local partner owned and implemented, co-invested by donors





Thank you

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Financial Barriers

- Existing NMHS budget deficits and availability
- Political economy – climate finance landscape
- Market failures (barriers to private investment)
 - Information
 - Positive externalities – social return higher than private return
- Challenges
 - Revenue streams and financial viability
 - Bankability
- Access to finance at local and for most vulnerable

Making robust climate services widely available for low emission, climate-resilient development

Summary: This initiative will support the development of climate information for dynamic decision and policy making with the aim of improving availability of climate services to increase resilience of human and natural systems against climate-induced damages. It will be achieved through modernisation of hydromet services with a focus on technical capacity development and institutional effectiveness to enable the creation of relevant, science-based information for dynamic decision-making across all sectors and decision timelines. Two areas of interest are modernization of national hydromet services and scaling up through regional hydromet programmes.

TARGETED TRANSITION PATHWAY: ENERGY TRANSITION; INFRASTRUCTURE & URBAN & TRANSPORT TRANSITION; INDUSTRY TRANSITION, LAND, OCEANS & ECOSYSTEMS TRANSITION; SOCIETAL AND CROSS-CUTTING TRANSITION

Why GCF should pursue this initiative?

The 2019 NDCs show a significant demand for hydromet modernisation - 96% of countries in Africa, 83% in Asia, 82% in South America. A WMO assessment show only 49% of countries have fully established a climate services user interfaces whereas 52% of countries in Africa, 21% in Asia, 42% in South America, 14% of South-West Pacific, 16% of SIDS and 49% of LDCs have no fit-for-purpose CIEWS. This initiative will significantly close the gap and help countries transition to a low-emission and climate-resilient development. GCF is the only fund that can address these problems by translating these challenges into opportunities for climate action as demonstrated through its approved projects. Without GCF support, the majority of developing countries will not be able to establish and operate the fit-for-purpose hydromet services required to achieve this paradigm

Proposed interventions

The major challenges that countries face include i) lack of enabling environment for institutional effectiveness, ii) lack of coverage and scale for effective service delivery in terms of quantity and quality of hard infrastructure and inadequate soft infrastructure for ensuring delivery and uptake of information, iii) limited governmental finances and budgets allocated to NMHS & NDMA, iv) complexities of forecasting, v) market barriers to creating enabling conditions to crowd-in private sector and vi) uncoordinated interventions limit the effectiveness of existing support to developing countries. This is what the initiative will address. Paradigm shift would be achieved through systematic investment in CIEWS value chain, incentivising use of CIEWS for investments and analytics, supporting long term planning and preparedness while promoting low emission and climate resilient development. The development and packaging of climate services at scale will help countries to meet their NDC and NAP targets.

Target geographies & partners

Initiative will target most vulnerable communities of all member countries but will prioritize SIDS, LDCs and Africa. It will also target all AEs but will prioritize DAEs.

Contribution to portfolio targets

Increase resilience focus on all GCF investments (both adaptation and mitigation investments and cross-cutting). Contribution to private sector mobilization in most vulnerably countries (SIDS, LDCs and Africa)

Feasibility & state of pipeline

The GCF portfolio and pipeline include aspects of this proposed flagship. It has the potential to unlock barriers to application of digital technologies to maximize impact at scale. Potential to create new markets.

Making Impact-Based MHEWS and Early Action Widely Available for low emission, climate-resilient development

Summary: This initiative is to ensure GCF investments in CIEWS result in the saving of lives, livelihoods and development gains protected and climate-related risks managed more effectively to help increase resilience against climate-induced damages. This initiative will focus on i) Impact-Based MHEWS to modernize key elements of MHEWS ii) Anticipatory Action that draws on IB-MHEWS to target a range of decision timelines to reduce disaster risks.

TARGETED TRANSITION PATHWAY: ENERGY TRANSITION; INFRASTRUCTURE & URBAN & TRANSPORT TRANSITION; INDUSTRY TRANSITION, LAND, OCEANS & ECOSYSTEMS TRANSITION; SOCIETAL AND CROSS-CUTTING TRANSITION

Why GCF should pursue this initiative?	This will be the first time such a climate-resilient innovative intervention for “leaving no one behind” will be scaled up in most vulnerable countries globally to address the call by the UN Secretary-General and meet NDC requests of countries. By implementing this initiative, GCF will be a thought leader and the main investment mechanism to address the climate-resilient development challenge. GCF will also lead the campaign to address NDC, NAP and UN Secretary-General call for action on MHEWS for all.
Proposed interventions	<p>This initiative will focus on two areas to make fit-for-purpose people-centered end-to-end MHEWS and Early Action widely available/accessible to all.</p> <p>i) Impact-based MHEWS to modernize climate risk management by strengthening key MHEWS components consisting of 1) disaster risk knowledge; 2) detection, monitoring, analysis and forecasting of hazards and their possible consequences; 3) warning dissemination and communication; 4) preparedness and response capabilities; and 5) effective coordination mechanisms (actors and actions). Additionally, it will focus on optimizing, establishing and scaling up mechanisms for delivering IB-MHEWS. It would be linked to community development programmes, governments and shock-responsive social protection mechanisms, International preparedness and response and private sector business continuity programmes to ensure “lastmile” impact and sustainability. It will create positive triple bottom line to drive private sector investment.</p> <p>ii) Anticipatory Action to reduce the potential impact of disasters. It will draw on IB-MHEWS to target three main temporal decision scales: i) before a hazard occurs, ii) during and immediately following a climate hazard, and iii) across multiple time-scales using multiple sources of IB-MHEWS before impacts emerge or become acute. Private sector partnerships to target the broader risk management landscape: business continuity, creation of new markets and provision of services to both government and the private sector with potential for innovative public-private partnerships.</p> <p>Financing for the two areas cover the full range of GCF financing instruments, including results-based payments, grants targeting the most vulnerable population and communities. Innovative financing architecture would include the blending of GCF financial instruments with dedicated disaster relief and emergency funds and related funding windows, insurance and contingent finance, market-based mechanisms and standard resource allocation processes</p>
Target geographies & partners	Initiative will target most vulnerable communities of all member countries but will prioritize SIDS, LDCs and Africa. It will also target all AEs but will prioritize DAEs.
Contribution to portfolio targets	Increase resilience of all GCF investments (both adaptation and mitigation investments and cross-cutting) and help to meet the 50:50 balance. Enhance private sector mobilization in most vulnerably countries (SIDS, LDCs and Africa). Increase translating country programmes into proposals.
Feasibility & state of pipeline	The GCF portfolio and pipeline include aspects of this proposed flagship. It has the potential to enhance resilience of all GCF investments and create new markets.

CIEWS for infrastructure design and resilience financing

Summary: This initiative will support climate information to strengthen systemic resilience frameworks; asset design and structuring; and innovative financing solutions. Improving availability of CIEWS data to help increase resilience against climate-induced damages. It will focus on: I) Resilience of infrastructure assets: Resilient infrastructure approaches/codes for build-in and nature-based solutions informed by CIEWS. Ii) Resilience of infrastructure services: CIEWS for integrated and comprehensive urban assessments of hydrometeorological, bio-physical and socio-economic determinants of climate variability and change. Iii) Resilience of infrastructure users: CIEWS for building resilience of user communities who use the infrastructure and related services.

TARGETED TRANSITION PATHWAY: ENERGY TRANSITION; INFRASTRUCTURE & URBAN & TRANSPORT TRANSITION; INDUSTRY TRANSITION, LAND, OCEANS & ECOSYSTEMS TRANSITION; SOCIETAL AND CROSS-CUTTING TRANSITION

Why GCF should pursue this initiative?

GCF will be a thought leader in applying climate analytics for infrastructure development, managing financial risks in both private and public sector markets. This includes supporting public entities to integrate CIEWS-based analytics for financial decision making in the delivery of public programs, goods and services. As the leading investor in CIEWS, GCF will capacitate governments to not only be a consumer of CIEWS analytics, investment and financial products and services but also a seller to businesses and other consumers. It will also support private sector to build robust business continuity programs as part of the broader risk management strategy.

Proposed interventions

The development of CIEWS analytics for climate-resilient infrastructure will support consideration of shocks (extremes) and stresses across different decision timelines from day-to-day operations and management through to designing and planning for long-term climate change.

The development and application of CIEWS analytics for policy and decision-making in adaptation, mitigation, and disaster risk finance and investments constitute a paradigm shift for asset owners across all GCF result areas. It will support the digital economy, weather derivatives and commodities markets, and insurance companies in protecting their investments against medium- to long-term risks. Five private sector areas to maximize mobilization and impact: climate funds, financial institutions, project finance, climate markets, climate technology and Innovation. Ramp up the use of digital financial technologies (Fintech) to facilitate effective delivery of decentralized climate finance and investments to the most vulnerable.

Target geographies & partners

Initiative will target most vulnerable communities of all member countries but will prioritize SIDS, LDCs and Africa. It will also target all AEs but will prioritize DAEs.

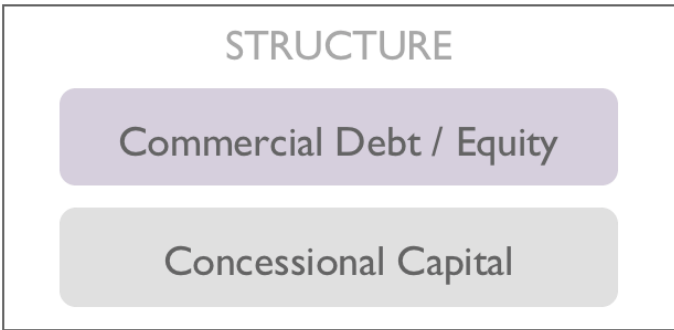
Contribution to portfolio targets

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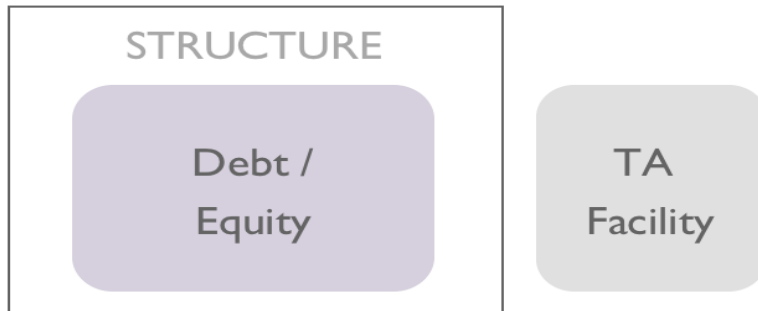
Feasibility & state of pipeline

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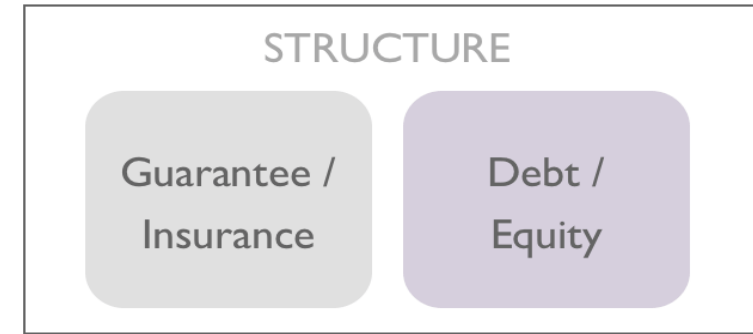
Archetypes - Four forms of blended finance structures



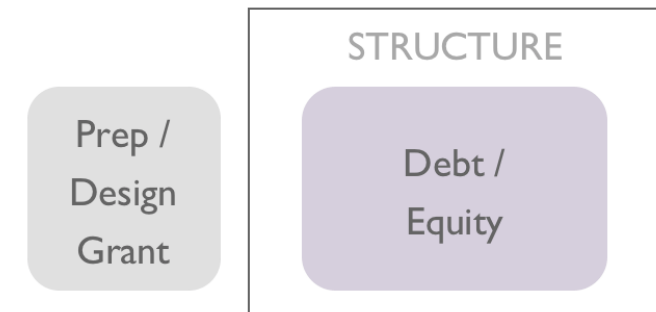
Concessional capital- Public or philanthropic investors provide funds at below-market terms within the capital structure to lower the overall cost of capital or provide an additional layer of protection to private investors.



Technical assistance fund - Transaction will be associated with a grant-funded technical assistance facility that can be utilized pre- or post-investment to strengthen commercial viability and climate impact.



Guarantee/risk insurance - Public or philanthropic investors provide credit enhancement through guarantees or insurance at below-market terms



Design-stage grants - Transaction design or preparation is grant funded, including project preparation or design-stage grants.