

Central Asia Regional Climate Change Program

May 2014

I. Context

Facing a Common Challenge

- **CA already vulnerable to a changing climate**
 - Glaciers are melting (up to 20-30% over last 50 years)
 - Droughts and floods are more prevalent, w/ significant human suffering and economic damages (up to 1.3% GDP pa)
 - Large natural base, inefficient infrastructure, and unsustainable land and water management increase vulnerability of key development sectors and of rural, and poor, populations
- **Climate change will intensify over 21st century**
 - Increase in heatwave and drought risks
 - Accelerated glacier melt (at least -50% by 2050), w/ increased variability and instability for water resources
 - Key concerns for food, energy and water security
- **Climate risks are crossing borders** through interconnexions of land and water systems as well as social and economic interactions (e.g., food and energy markets)

Why a Regional Approach

Countries are taking national actions and regional-scale solutions are needed too, for effective and scaled-up resilience:

- **Complementarity** (e.g., regional power pool, agriculture trade, insurance pool)
- **Economy of scale** (e.g., shared research, knowledge and capacity building efforts)
- **Experience sharing** (e.g., faster replication and scaling-up across countries of successful pilots)
- **Strategic planning and financing** (e.g., access to climate finance, dialogue with Development Partners, voice in international negotiations)

Early Lessons from CA Hydromet Modernization Project

- Enhanced collaboration
 - semi-annual Directors' meeting
 - regular knowledge exchange among participating countries
 - regional entity utilized
 - IDA-regional funds accessed (33% of total costs)
- Ownership generated
- Leveraging higher-level policy dialogue
- Importance of Hydromet services recognized
- Changed mindset towards service-orientation

Where do we come from?



May 2014 - 2nd Central Asia Knowledge Forum: proposed Program discussed among CA stakeholders

Mar-April 2014 - National consultations on draft Concept for proposed Regional Program for Resilience

March 2014 - First meeting of the Technical Working Group in Almaty

Early 2014 – Technical Working Group established, with cross-sectoral experts from the 5 CA countries to work on climate-smart solutions at both national and regional levels

II. Countries Priorities

Kazakhstan: Priority areas and actions National level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Agriculture	<ul style="list-style-type: none">• Improving land management (esp. pasture management)• Optimization of agriculture production (Selection of climate change resistant crops)• Improving early warning systems for weather-related hazards
Water Resources	<ul style="list-style-type: none">• Introduction of water-saving technologies, primarily in agriculture• Rehabilitation and construction of water supply infrastructure in rural area and irrigated agriculture• Strengthening capacity of water councils for better management of water resources

Kazakhstan: Opportunities for Regional Cooperation



Areas for regional collaboration	Concrete actions that could be undertaken
Building capacity	<ul style="list-style-type: none">• Nominate a focal point for the preparation and implementation of CC programs at the regional level;• Creation and maintenance of an integrated regional information platform on CC;• Increased capacity of professionals in targeted areas and networking between them.
Methodological and organization proposals	<ul style="list-style-type: none">• Development proposals for the application of standardized tools to assess vulnerability of targeted sectors;• Identifying sources and mechanisms of funding for regional CC programs.

Kyrgyz Republic: Priority areas and actions national level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Water resources	Better use of water resources, the introduction of economic incentives; Rehabilitation of existing and construction of new water facilities; Preservation of the upper watershed of the rivers; Rehabilitation and support system for monitoring climatic parameters.
Agriculture	Placement Optimization and diversification of agricultural production; Carrying out the selection and cultivation of drought-tolerant salt tolerant crops; Conducting phytomeliorative works; Integrated management and development of pasture grazing; Improving the monitoring of food security and the establishment of a system for forecasting yields.
Forestry and biodiversity	Improving the monitoring of populations of flora and fauna; Improving the management system of specially protected natural territories; Conservation and restoration of wetlands; Consideration of recreational capacity in planning areas of tourism, etc. Promotion of the principles of social forestation and joint forest management.

Kyrgyz Republic: Priority areas and actions national level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Climate-related natural disasters	Improving the monitoring and forecasting of severe weather events; Improving early warning systems and public organizations; The development of insurance climatic risks; Development of preventive measures to prepare the public, medical and social institutions to work in emergency and emergency mode to provide assistance to the population.
Health	Improving the legal framework; Development of guidelines; Monitoring of infectious morbidity; Identification of vulnerable groups of people, their accounting, clinical examination, information on adverse pleasant climatic and meteorological conditions; Monitoring of the safety of drinking water and food; Development of action plans preparedness of health facilities to cases prolonged heat and prolonged cold.
Capacity building	Improvement of the institutional framework, Legal provision; Human resources; Increase awareness and knowledge.

Kyrgyz Republic: Opportunities for regional cooperation



Areas for regional collaboration	Concrete actions that could be undertaken
Building capacity	Create a focal point for the preparation and implementation of programs for CC at the regional level; Creation and maintenance of an integrated regional information platform on CC; Increased capacity of professionals in targeted areas and networking between them.
Methodical and organization proposals	Development proposals for the application standardized tools to assess vulnerability targeted sectors; Identifying sources and mechanisms funding of regional programs on CC issues.

Tajikistan: Priority areas and actions National level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Energy	<ul style="list-style-type: none">- Improve climate resilience of hydrofacilities- Introduction of advanced energy efficiency and energy saving technologies- Development of alternative and renewable sources of energy- Development of climate resilient hydroenergy sector
Agriculture	<ul style="list-style-type: none">- Intensification of agriculture: Introduction of advanced irrigation and farming technologies- Optimization of irrigation norms using advanced irrigation methods and drip irrigation- Terracing of lands for development of horticulture and vineyards, on slopes- Development of combined and rotational cropping- Establishment and management of seed banks- Introduction of greenhouses to protect from frost and temperature fluctuations- Optimization of agriculture production (Selection of climate change resistant crops)- Agriculture sector risk insurance

Tajikistan: Priority areas and actions National level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Water Resources	<ul style="list-style-type: none">- Integrated water resource management- Improvement of operation of irrigation infrastructure and land reclamation- Strengthening monitoring of ice and snow resources- Improving access to drinking water and sanitation in rural area- Development of early warning system- Construction and rehabilitation of flood protection infrastructure, strengthening embankments

Tajikistan: Opportunities for Regional Cooperation



Areas for regional collaboration	Concrete actions that could be undertaken
Capacity building	<ul style="list-style-type: none">- Building technical capacity of relevant sector specialists on climate change- Cooperation between national Emergency Situation institutions- Establishment of Regional platform for data sharing- Raising awareness and information dissemination among all layers of societies- Establishment of a regional climate modeling center
Coordination efforts	<ul style="list-style-type: none">- Improvement monitoring of hydrometeorologic observation gauges of interstate importance- Development of unified tools/methodologies for climate change vulnerability assessment- Establishment of the coordination mechanism for the regional program (based on the existing experience of PPCR Secretariat in Tajikistan)

Turkmenistan: Priority areas and actions national level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Water management	<p>Improving water resource mg't at national and regional levels</p> <p>Introduction of advanced irrigation methods</p> <p>Comprehensive rehabilitaiton of irrigated land</p> <p>Improving ameliorative conditions of land</p> <p>Use of additional water sources (drainage water, waste water, and groundwater)</p> <p>Rehabilitation of existing, and construction of new, reservoirs</p>
Agriculture	<p>Projection of the effects of climate change on crop yields</p> <p>Application of advanced methods of pest control</p> <p>Following rotation practices</p> <p>Optimization of land for agricultural production</p> <p>Selection of drought-and salt-tolerant crops</p>
Health	<p>Study of the effect of climate change on human health</p> <p>The implementation of preventive measures</p>

Turkmenistan: Opportunities for Regional Cooperation



Areas for regional collaboration	Concrete actions that could be undertaken
Ecosystems, flora, fauna and forests	Improvement and expansion of protected areas; Biodiversity conservation; Reforestation and afforestation.
Weather-related disasters	The introduction of advanced methods of forecasting Strengthening the capacity of Hydromet Services Improvement of the early warning and information systems

Uzbekistan: Priority areas and actions

National level



Priority action areas where resilience must be scaled-up	Priority actions in these areas, including projects that could be “revitalized” and made resilient for climate change
Agriculture production	<ul style="list-style-type: none">• Development of institutional and legislative measures; Improving land management;• Accounting agro meteorologic indices in the territory;• Development of early warning systems for drought and other severe weather events.
Water sector	<ul style="list-style-type: none">• Improve management of water resources;• Water conservation and water management (including technical, organizational, and economic activities);• Development of monitoring system for snow and ice resources;• Improving the system of accounting and management water quality.

Uzbekistan: Opportunities for Regional Cooperation



Areas for regional collaboration	Concrete actions that could be undertaken
Capacity building	<ul style="list-style-type: none">• Create a coordinating body for preparation and implementation of CC resilience programs at the regional level;• Establishment and maintenance of an integrated regional information platform on Climate Risks;• Increased capacity of specialists in targeted areas and improving networking between them.
Methodological and organizational issues	<ul style="list-style-type: none">• Development proposals for application of unified tools to assess vulnerability of targeted sectors;• Identifying sources and mechanisms funding of regional programs on CC issues.

III. Outline of Regional Program

Program Framework

Vision: Increased regional collaboration

Goal: Improve national and Central Asia regional climate resilience and future opportunities for green growth

Flexible approach :

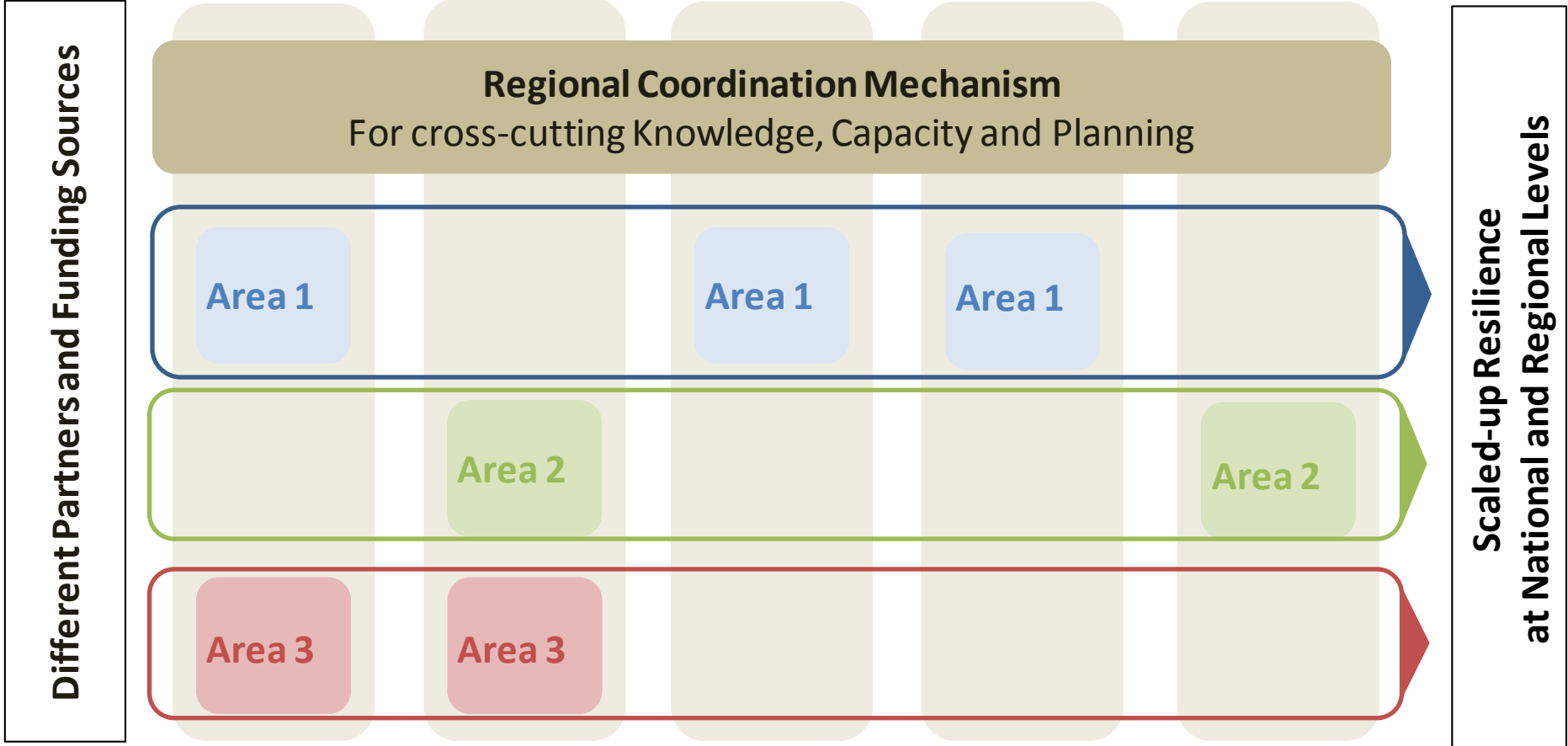
- Climate-smart institution and capacity development for cross-sectoral and cross-country planning
- Investment for resilience in key priority sectors
- Apply and adapt PPCR and other experiences
- Combine and leverage variety of funding sources

Potential Benefits

Increased regional resilience

- Improved information, institutional, and investment foundation
- Improved opportunities for climate-smart development at various scales
- Improved cooperation among CA countries, and coordination among CA stakeholders
- Readiness to attract and leverage additional finance from national and regional sources, better voice/visibility on international scene

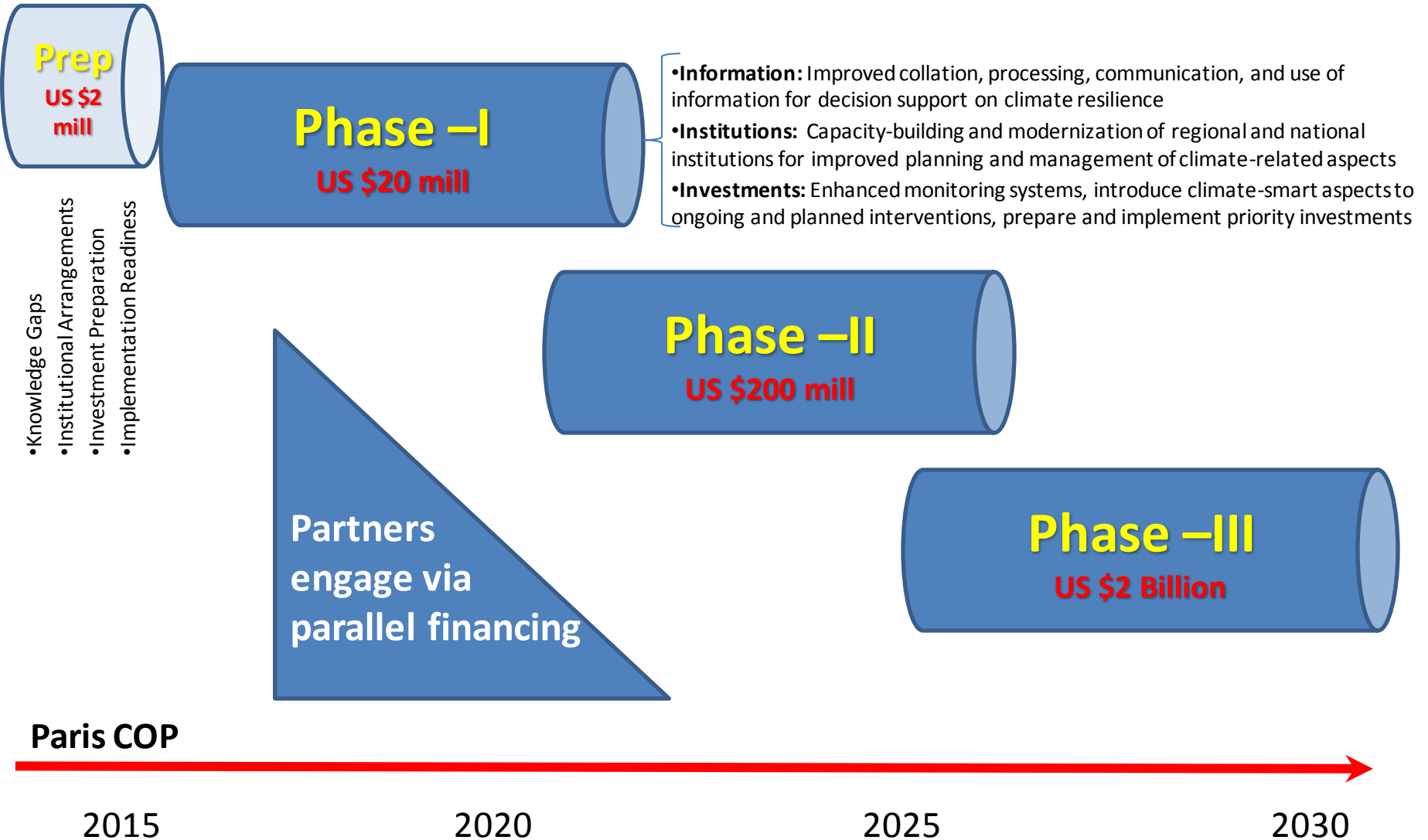
Illustrative Framework



Central Asia Regional Climate Program: Proposed Phasing

Program Focus Areas:

- **Information:** *Improve data collection and management systems*
- **Institutions:** *Strengthen stakeholders' capacity for climate action*
- **Investments:** *Scale-up climate-smart investments*



Phase I – Institutional Readiness

STOCKTAKING AND NEEDS ASSESSMENT

- Identify key development priorities at risk from climate change
- Identify gaps and needs in Strategies, Policies and Programs
- Generate and collect lessons from past/on-going initiatives (both actions and governance)
- Review DPS activities carried to maximize synergies

CLIMATE RISKS INFORMATION

- Collection, exchange and update core data sets
- Upgrade of data mg't systems
- New data collection

KNOWLEDGE AND CAPACITY

- Tools and approaches for climate-smart decision
- Training
- Build regional institution

CLIMATE-SMART POLICIES

- Sector modernization
- Trade coordination
- Enabling Policies to enhance cooperation

SCALING-UP INVESTMENT

- Identify options to make on-going and planned inv't climate-smart
- Initiate preparatory work on new inv't

INSITUTIONAL FRAMEWORK

- Develop institutional structure for overseeing program

Possible Program Components

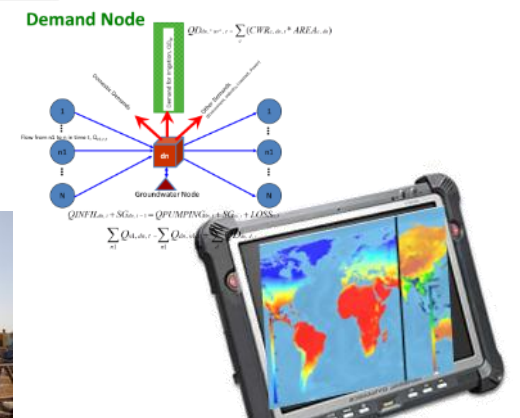
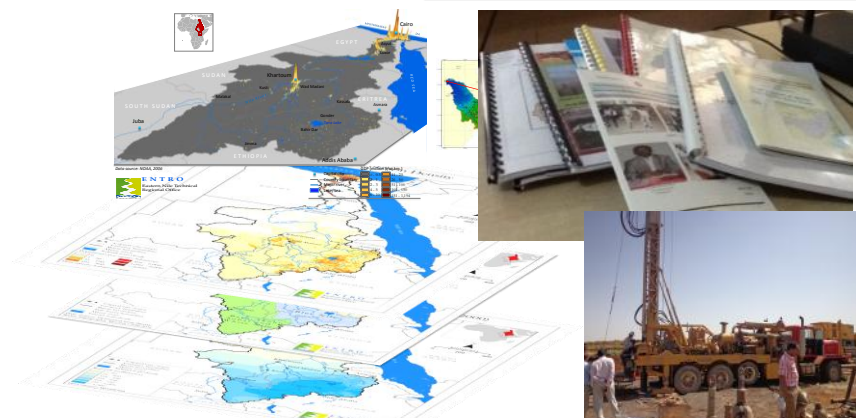
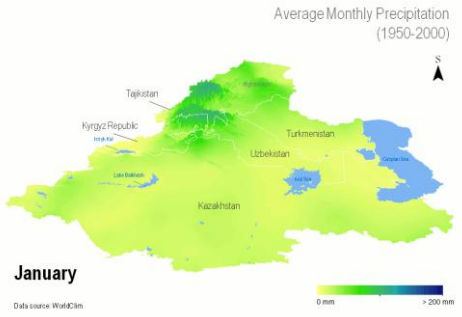
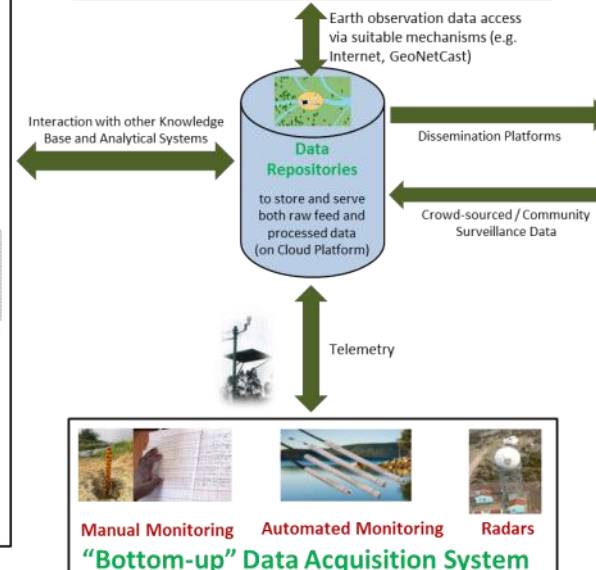
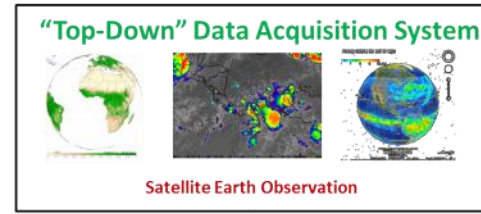
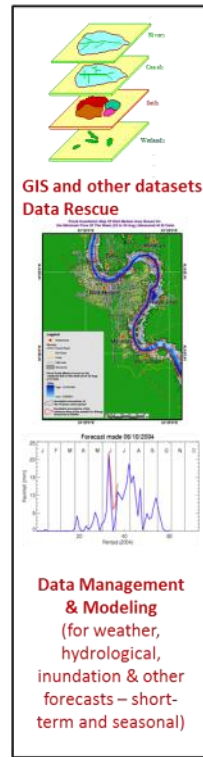
at national and regional levels

1. Vulnerability assessment, particularly at regional level
2. Information: Data collection and management systems
3. Institution: Strengthen capacity for climate action
4. Investments: Scale-up climate-smart investments
5. Align policy frameworks with climate action
6. Administrative and institutional set up

Visualizing the Future Learning from Global Experiences

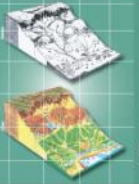
Information & Analysis

- Broad **Knowledge Base** (public-domain)
- Regional **Monitoring Systems** (e.g. Hydromet)
- Analytical/ **Modeling Tools** (incl. public-domain) for planning, forecasting and management
- Special **Studies and Surveys** to fill knowledge gaps
- Creation of public-domain **knowledge products**
- Creation of shared **online services** and public-domain **portals/ mobile Apps**



Visualizing the Future Learning from Global Experiences

Institutions and Policy



- **Modernized Institutions** with appropriate modern equipment
- Harmonized and enabling **policies** and guidelines
- **Knowledge Networks/ Internships/** Young Professionals / Visiting Experts Programs/ Competitions
- **Training/** Capacity-building at all levels
- Meaningful **Stakeholder Engagement**



Visualizing the Future Learning from Global Experiences

Investment Preparation and Implementation

- Investment Scoping, **Preparation** (e.g. preparation studies, detailed designs)

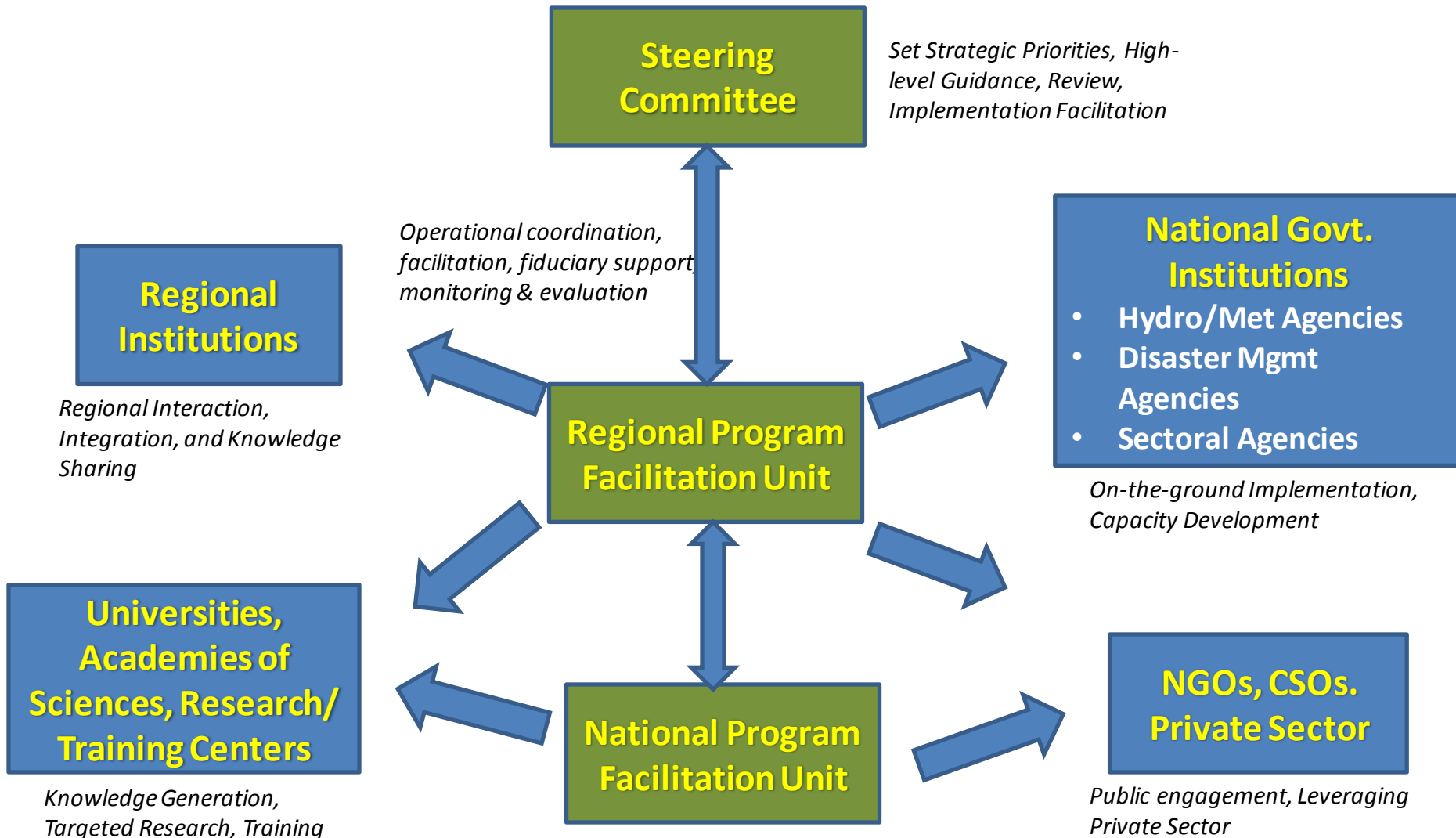
- Investment **Implementation**

Examples:

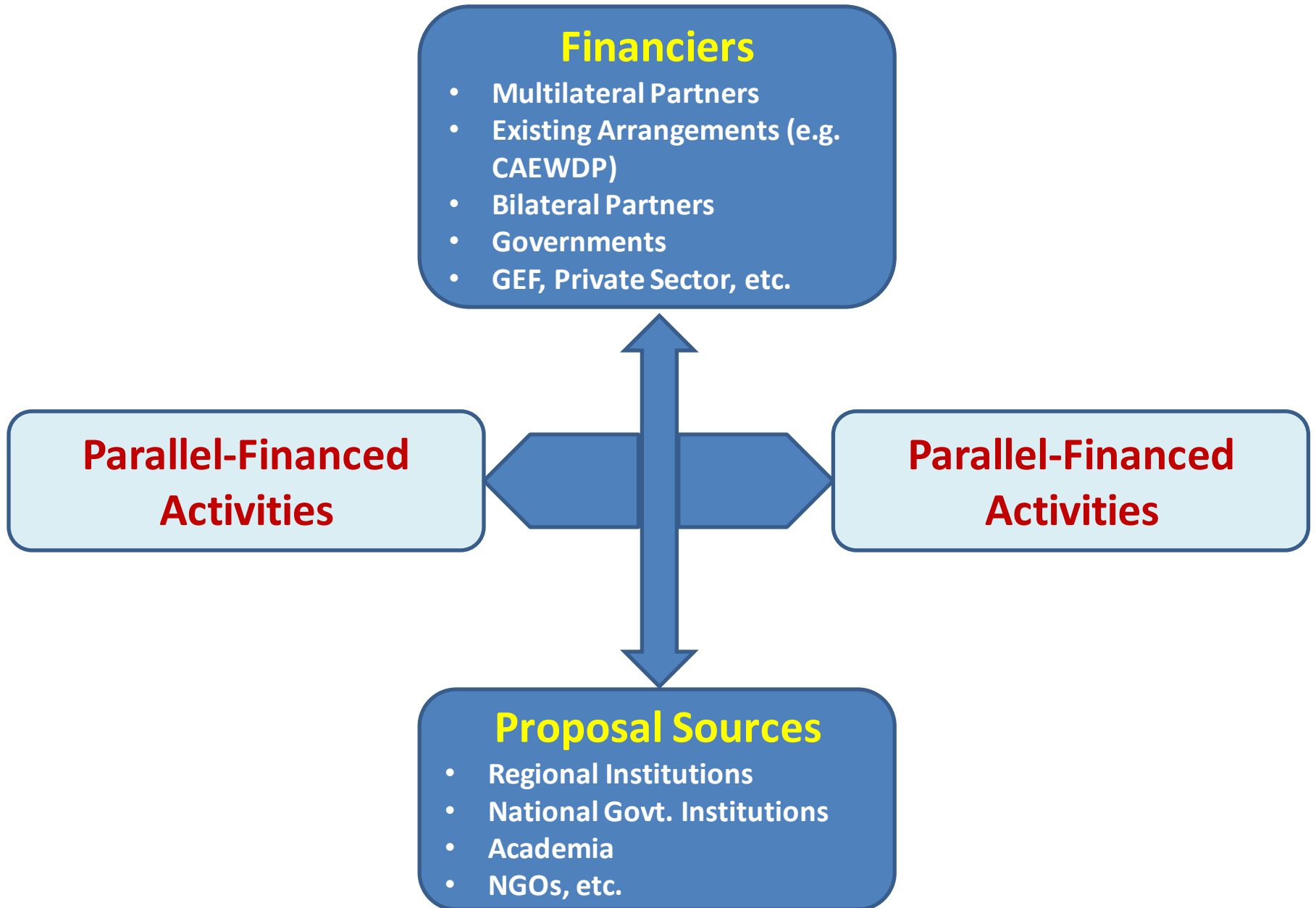
- Hydromet and other Monitoring Systems
- Agriculture climate resilient productivity improvement
- Renewable energy
- Green Technologies: Resource conservation and cleaner production
- Landscape/ watershed management/ Ecosystem Services



Brainstorming a possible Vision of Program Implementation



Possible Financing Arrangements to Link Supply & Demand



Next Steps (1)

- TWG meeting: Friday, June/July; Development Partners invited for technical inputs
- June 2014: participation in CIF Partnership forum, Montego Bay (Jamaica)
- Next meeting of the Regional Technical Working Group: tomorrow Friday, and then June or July to continue/deepen design of the program

Next Steps (2)

- Agreement on the concept - nationally and regionally (and on a name – next slide)
- Activities to be included – Nationally and regionally
- Interested Financiers/Partners
- Implementation Arrangements Options
- Operational Framework (e.g. eligibility criteria, process, M&E)
- Program Preparation activities
- Obtaining and signing financing agreements

Questions for you

- Priority areas: Is the focus right?
- Priority actions: Climate-smart solutions that are ready to be replicated in the region?
- Shovel-ready projects : Projects that could be retrofitted/adapted to scale-up resilience quickly?
- Which area would you be interested in engaging into?

Quizz

No	Acronym	Full Name	Comment / why good or bad
1	4C	Collaboration on Climate Change for Central Asia	Foresee or 4C4CA
2	CAMP	Central-Asia Adaptation and Mitigation Program	Camp - collaboration, broad, inclusive, has Mitigation, etc
3	CAP	Climate Adaptation Program (CAP) for Central Asia	Can be CAP4CA
4	CARD	Climate Adaptation for Resilient Development program for Central Asia	Easy to remember Can be CARD4CA
5	CAP4CR	Central Asia Program for Climate Resilience	Similar to CAP4CA
6	CRPCA	Climate Resilience Program for Central Asia	This is what we started with

Annexes

Bank's Business Products

Financing Products

- Investment lending (IL) & Development Policy Operations (DPL)
 - IDA Credits/Grants, IBRD Loans, Regional IDA
 - IBRD/IDA Guarantees
- Trust Funds (i.e. Recipient Executed, Special Financing, GEF, PPCR etc.)
- Carbon Finance Transactions

Analytic & Advisory Activities

- Economic and Sector work
- Non-Lending Technical Assistance
- Impact Evaluations
- Donor Aid- Coordination
- Research Services

Main Lending Instruments

- **Investment Lending**
 - Provides financing for specific expenditures, activities, or outputs
 - Finances capital investment, institutional development, sectoral and local capacity building
 - Appropriate when achieving objectives requires inputs to be linked to outputs
- **Development Policy Lending**
 - Provides quick disbursing policy-based financing in support of a borrower's program of policy and institutional actions
 - Provides funding directly into the country's overall budget

Bank Operational Instruments: Investment Operations(IL)

- Main Bank lending instrument under the Articles
- Can be extended to a member country or to local authorities, state-owned enterprises etc. with a member country guarantee
- Supports country-led projects (or specific programs) in most sectors
- Provide financing (directly or indirectly) for goods, works and services
- IL operations are subject to procurement guidelines and financial management policies as well as environmental and social safeguards.
- Provides sustained capacity-building with hands-on Bank staff participation during preparation and implementation
- There are several types of IL, all of which are available to both IDA and IBRD borrowers at regular (IDA or IBRD) terms

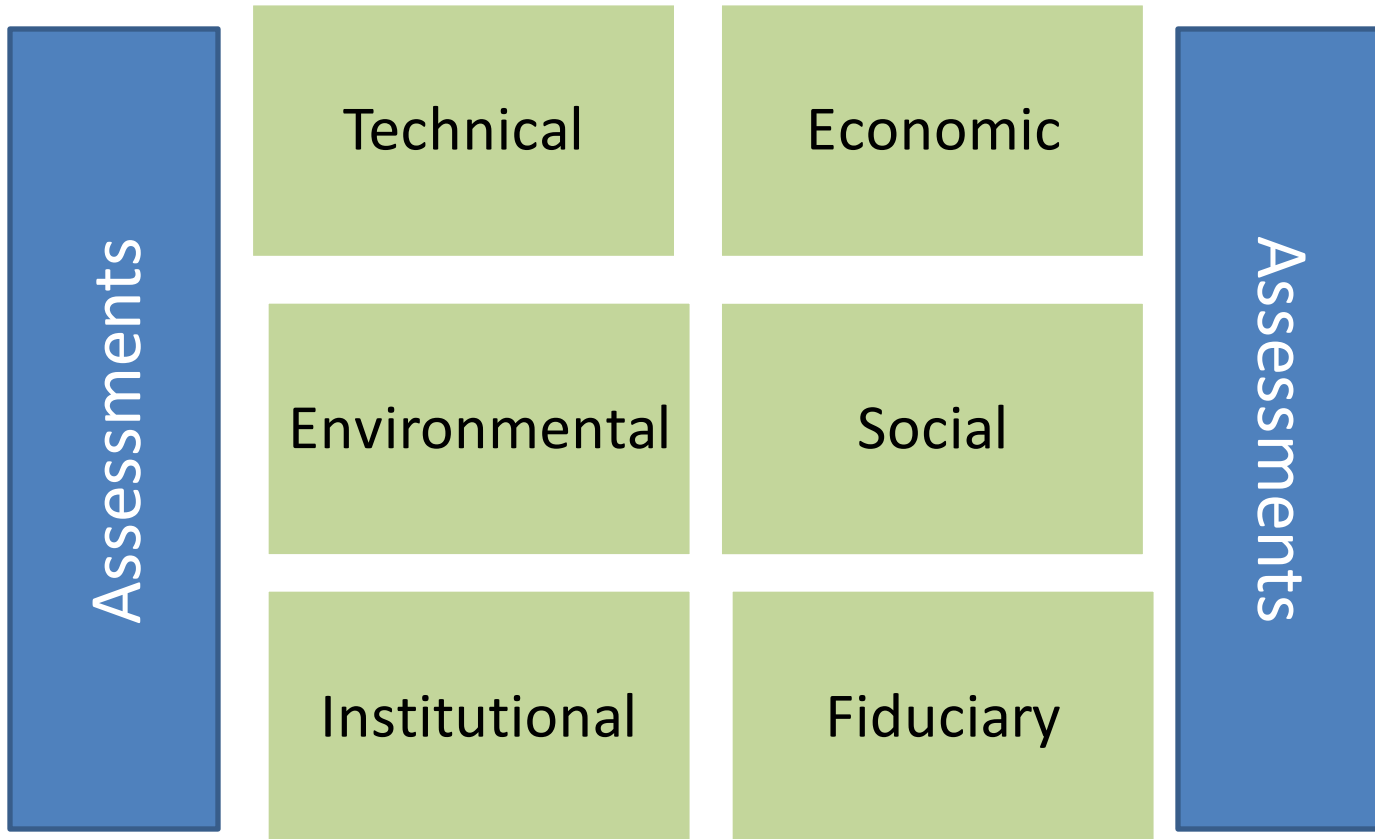
Investment Lending Options

Type of IL	Purpose
Specific Investment Loan	Focus on specific public investment projects that create, rehabilitate, or maintain economic, social, or institutional infrastructure
Sector Investment and Maintenance Loan	Focus on public expenditure program in particular sectors
Adaptable Program Loan	Provide phased support for long term development programs. They involve a series of loans that build on the lessons learned from previous loans in the series
Learning and Innovation Loan	Loans of US\$ 5 million or less financing small, experimental, risky and/or time-sensitive projects in order to pilot promising initiative and build consensus around them
Technical Assistance loan	Used to build institutional capacity in the borrower country
Financial Intermediary Loan	Provide long-term resources to local financial institutions to finance real sector investments. Financial institutions assume credit risk on each subproject
Emergency Recovery Loan	Support economic and social recovery immediately after an extraordinary event- such as war, civil disturbance, or natural disaster- that seriously disrupts an economy, or support programs to avert deterioration in economic and social services in the face of imminent emergency. Can include a foreign exchange component against positive list of imports
Additional Financing	Provided in the context of an ongoing project (i) to facilitate completion of a project activities in the event of an unanticipated financing gap/ cost overrun; (ii) as part of project restructuring when the loan amount is insufficient; or (iii) to scale up the project

The Project Cycle



What Does preparation phase mean?



What Prep Phase Will Focus on

Based on stocktaking and needs assessment, in consultation with the Technical Working Group and national/regional experts

Knowledge Sharing and Capacity Building

- development and application of unified approaches and set of tools for vulnerability assessment, economic evaluation, prioritization of measures
- training of technical staff
- mechanisms for regular knowledge and experience exchange across sectors and countries (including outside the region)
- new analytical work
- strategies to increase awareness and knowledge through stakeholder, media, civil society engagement

Investment Preparation

- structure, content and support of integrated regional platform on climate risk information
- shovel-ready investments for climate-proofing
- sources and mechanisms of funding for the program in the next stage of implementation.

Implementation Readiness

- arrangements for project preparation and implementation at national and regional levels, including coordination with Development Partners activities
- development of monitoring and evaluation system for the program at the national and regional level