

**Second Central Asia Climate Knowledge Forum,  
Almaty, Kazakhstan**

# **ADB's Climate Change Initiatives**

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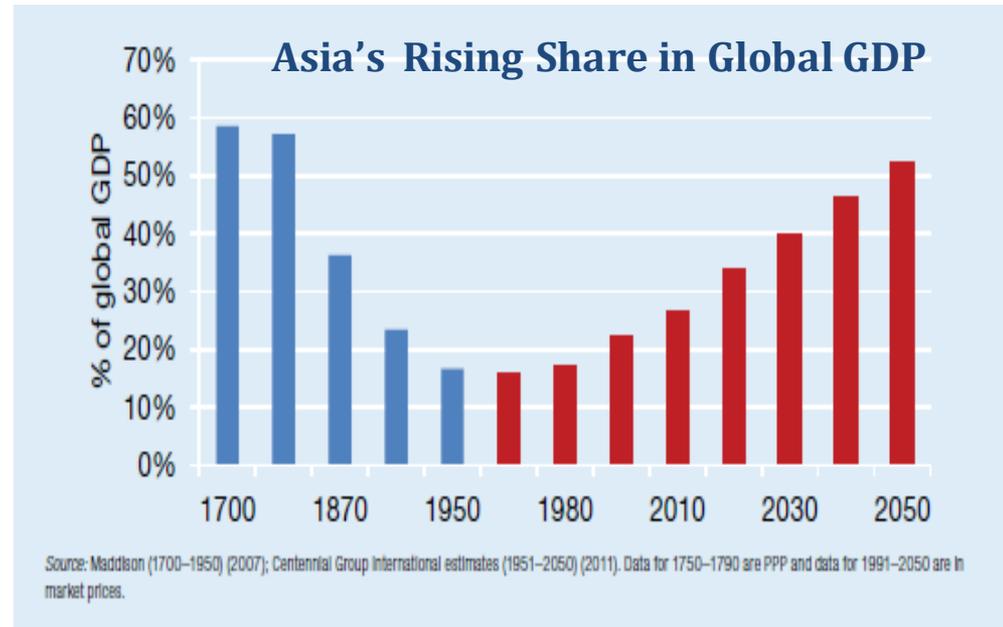
# Outline of Presentation

- **Climate Change in Asia Pacific and ADB's Priorities for Actions**
- **General Overview of ADB Regional Initiatives**
- **ADB Central and West Asia Climate Initiatives and Lessons Learnt**
- **ADB Vision on Climate Change Challenge**

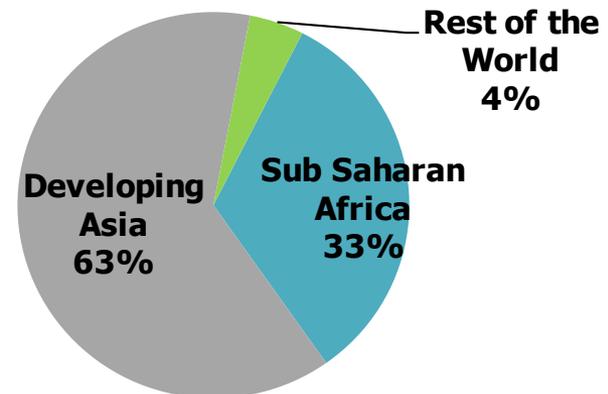
# **Climate Change and ADB Priorities for Actions in Asia Pacific**

# Asia is key to the global fight against climate change

- **Rising greenhouse gas emissions**
- **Acute risks from climate change impacts**



Asia remains home to the largest number of poor...

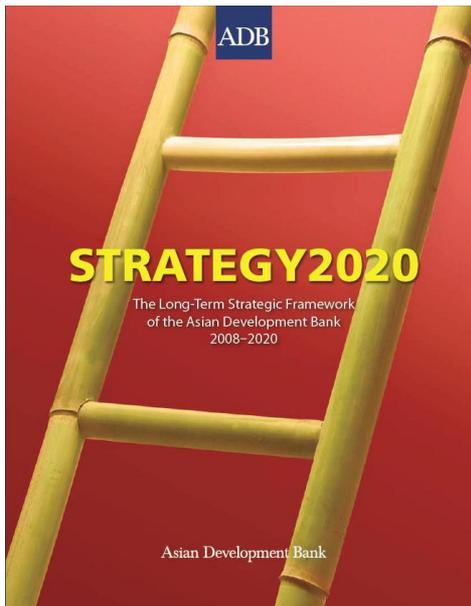


# 5 Climate Threats: Asia Pacific Countries at Most Risk

	Drought	Flooding	Storms	Sea Level Rise (1m)	Agriculture	
1		Bangladesh	Philippines	All low-lying Island states		
2		China	Bangladesh	Vietnam		
3		India				
4		India	Cambodia	Vietnam		
5				Indonesia		
6		Laos	Mongolia			
7		Pakistan		China		
8		Sri Lanka	Samoa			India
9		Thailand	Tonga	Myanmar		
10		Vietnam	China	Bangladesh		

Source: World Bank (2009). *Convenient Solutions to an Inconvenient Truth: Ecosystem-based Approaches to Climate Change*, Environment Department.

# ADB's Long-term Strategic Framework (2008-2020)



- **Inclusive Economic Growth**
- **Regional Integration**
- **Environmentally sustainable growth**
  - **Environment including **climate change**: one of the five core areas of operations**

# ADB Climate Change Strategic Priorities

## Modalities

Priorities

Finance	Knowledge	Partnerships
Scaling-up Clean Energy		
Encouraging Sustainable Transport and Urban Development		
Managing Land Use and Forests for Carbon Sequestration		
Promoting Climate-resilient Development		
Strengthening Policies, Governance and Capacity		

# Mitigation Initiatives

## Clean Energy

- > \$2 billion since 2011
- **Asia Solar Energy Initiative:**  
3 GW new capacity by 2015
- **Quantum Leap in Wind:**  
1 GW by 2016
- **Energy for All Partnership: access for 100 million poor by 2015**

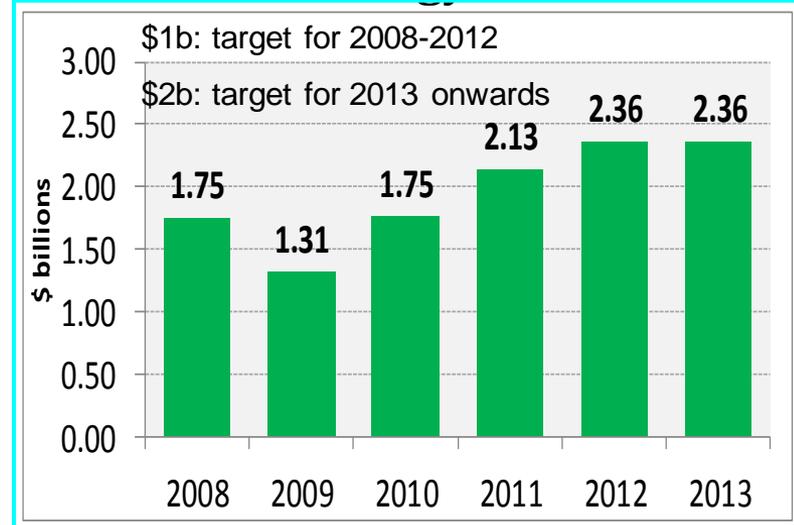
## Sustainable Transport & Urban Devt

- Sustainable Transport Initiative
- Green Cities Initiative
- Cities Development Initiative for Asia

## Land Use and Forest Management

- **Piloting REDD+/Forest Investment Program: Indonesia, Lao PDR, Mekong Region**

## ADB Clean Energy Investments



### Avoid

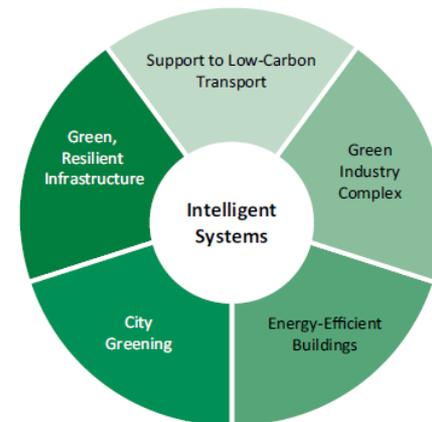
unnecessary  
vehicle  
kilometers

### Shift to the

lowest-emitting  
modes

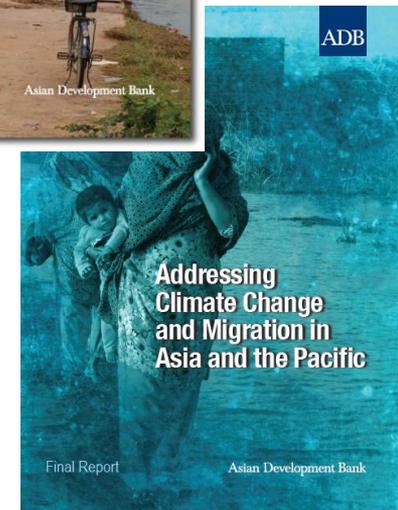
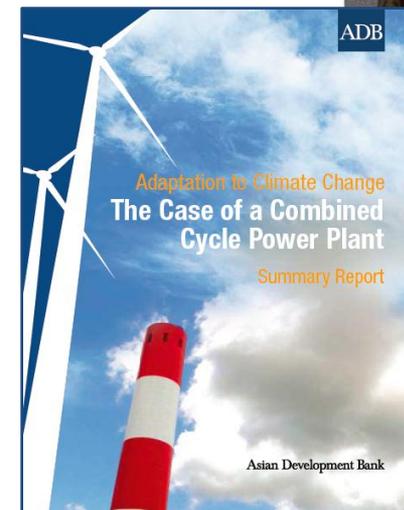
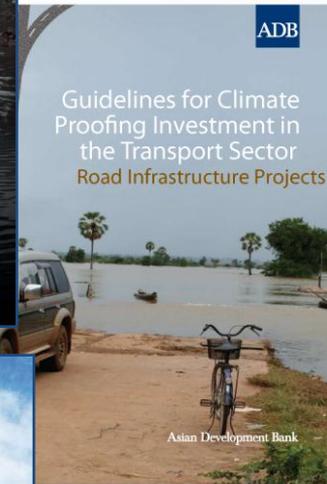
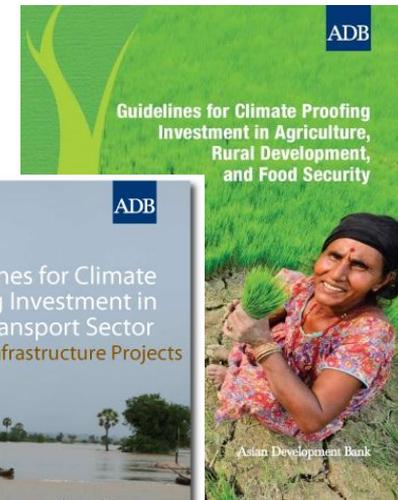
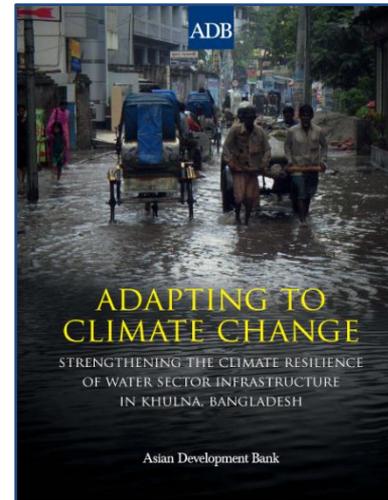
### Improve

vehicle/fuel  
technology towards cleaner  
and more efficient options



# Adaptation Initiatives

- **Mainstreaming climate resilience in core development planning**
  - Pilot Program on Climate Resilience for Bangladesh, Cambodia, Nepal, Papua New Guinea, Samoa, Tajikistan and the Pacific
- **Climate proofing vulnerable projects:** roads and bridges, ports, water supply and drainage
- **Knowledge support:** regional climate projections consortium data facility , guidance and tools
- **Addressing social dimensions :** migration, gender, health impacts
- **Greater emphasis on integration of adaptation and disaster risk reduction**



# Mitigation: Project Examples

Sector	Project
<b>Renewable Energy</b>	<ul style="list-style-type: none"> <li>• <b>Wind Power Generation:</b> PRC, India, Pakistan, Thailand</li> <li>• <b>Solar Power Generation:</b> PRC, India, Pakistan, Thailand</li> <li>• <b>Small/Mini hydro Power Generation:</b> PRC, Nepal, VIE</li> <li>• <b>Biomass/biogas:</b> PRC, Thailand, Viet Nam</li> </ul>
<b>Energy Efficiency and Conservation</b>	<ul style="list-style-type: none"> <li>• <b>Efficient lighting/buildings:</b> PRC, Nepal, Pakistan, Philippines, Thailand</li> <li>• <b>Power plant efficiency</b> (combined cycle gas turbine plant): Thailand, Uzbekistan, Vietnam</li> <li>• <b>Efficient water supply:</b> Armenia, Kyrgyz Republic, Uzbekistan, Viet Nam</li> </ul>
<b>New technologies/ Others</b>	<ul style="list-style-type: none"> <li>• <b>Carbon capture and storage:</b> PRC Carbon Integrated Gasification Combined Cycle Power Plant</li> </ul>
<b>Sustainable Transport and Urban Development</b>	<ul style="list-style-type: none"> <li>• <b>Bus rapid transit systems:</b> Lanzhou, Dhaka, Jiangxi Fuzhou, Jiangxi Ji'an, Ulaanbaatar, Hubei Yichang</li> <li>• <b>Metro projects:</b> Bangalore, Hanoi, Ho Chi Minh, and Tbilisi</li> <li>• <b>Railways:</b> Cambodia (Rehab), PRC, India, Turkmenistan</li> <li>• <b>Inland waterways:</b> Hunan Xiangjiang (PRC)</li> <li>• <b>Non-motorized transport and integrated urban transport:</b> Davao, Kathmandu, and Vientiane</li> <li>• <b>Efficient urban heating:</b> PRC</li> <li>• <b>Methane reduction (waste-to-energy):</b> PRC</li> </ul>
<b>Sustainable forest management</b>	<ul style="list-style-type: none"> <li>• <b>Pilot REDD+/Forest Investment Program:</b> PRC, GMS, Indonesia, Philippines</li> </ul>

# Adaptation—Integrated Climate Risk Management: Project Examples

Sector	Project
Energy	<ul style="list-style-type: none"> <li>• Climate proofing of Toktogul Hydro Power Plant Phase 2 (Kyrgyzstan)</li> <li>• O Mon IV Combined Cycle Power Plant (Vietnam)</li> </ul>
Water/Irrigation	<ul style="list-style-type: none"> <li>• Trimmu and Pajnaj Barrage Project (Pakistan): Increasing flood bay capacity</li> <li>• Water Resource Management in Pyanj River Basin (Tajikistan): Climate proofing Chubek Irrigation System</li> <li>• Amu Bukhara Irrigation system (Uzbekistan): climate proofing ABIS</li> <li>• Building Climate Resilience in the Pyanj River Basin (Tajikistan)</li> <li>• Khulna (Bangladesh)</li> </ul>
Transport	<ul style="list-style-type: none"> <li>• Avatiu Port (COO)</li> <li>• Mekong Delta Central Connectivity Project (VIE)</li> </ul>
Urban	<ul style="list-style-type: none"> <li>• Ho Chi Minh City Adaptation to Climate Change (VIE)</li> </ul>

# ADB Climate Finance (in Million \$)

Year	Mitigation			Adaptation			Total		
	ADB resources	External	Subtotal	ADB resources	External	Subtotal	ADB resources	External	Total
2011	2,196	139	2,335	455	103	559	2,652	241	2,894
2012	2,109	386	2,495	821	75	896	2,930	462	3,392
2013	2,065	348	2,413	880	87	967	2,944	435	3,379

Adaptation finance growing.

For 2013, total adaptation finance accounted for 28.65%; up from 19% in 2011.

Mitigation finance accounted for 71.3% in 2013; down from 80% in 2011.

# Mobilizing Climate Financing

## Deploying concessional resources

### Internally-managed funds

- Clean Energy Financing Partnership Facility (CEFPF)
- Climate Change Fund (CCF)
- Others with bilaterals

### Externally-managed funds

- Climate Investment Funds (CIFs)
- Global Environment Facility (GEF)
- soon the Green Climate Fund (GCF)

## Maximizing market mechanisms

- **Upfront carbon finance**
  - ✓ Asia Pacific Carbon Fund
  - ✓ Future Carbon Fund
- **Carbon Market Technical Support Facility**
  - ✓ CDM support
  - ✓ domestic emissions trading
- Supporting **other market mechanisms** (e.g. renewable energy credits; feed in tariffs)

## Catalyzing private capital

- **Direct project finance (lending, guarantees, syndications), and equity investment**
- **Public private partnerships: (PPPs)** working with client DMCs across stages of PPPs

# Deploying Concessional Resources Multilateral Climate Funds

Fund	Date Established	Total Global Fund Size (\$ million)	Allocated to ADB (\$ million)
<b>A. Climate Investment Funds</b>		<b>7,990</b>	<b>1,612</b>
Clean Technology Fund (CTF)	2008	5,500	1,270
Scaling-Up Renewable Energy Program for Low Income Countries (SREP)	2008	551	35
Forest Investment Program (FIP)	2008	639	31
Pilot Program for Climate Resilience (PPCR)	2008	1300	276
<b>B. Global Environment Facility (GEF)</b>		<b>5,323</b>	<b>115</b>
B.1 GEF Trust Fund			
GEF Trust Fund 1-4 - Climate Change Focal Area (1991-2009)	1991-2009	3,057	65
GEF Trust Fund 5 - Climate Change Focal Area (2010-2014)	2010-2014 (replenishment)	1,260	24
GEF Trust Fund 5 - Sustainable Forest Management/REDD+	2010	250	4
GEF Trust Fund - Strategic Priority on Adaptation (SPA) (2004-2010)	2004	50	4
B.2 GEF-Least Developed Countries Fund (LDCF)	2002	475	15
B.3 GEF-Special Climate Change Fund (SCCF)	2005	231	4
<b>C. Kyoto Protocol Adaptation Fund (AF)</b>	2007	348	0
<b>Total</b>		<b>13,661</b>	<b>1,727</b>

as of Dec 2013

# ADB-Managed Funds

Fund	Date Established	Cumulative Commitments \$ million
<b>ADB Climate Change Fund (ADB net income)</b>	May-08	<b>58.8</b>
Clean Energy		34.0
REDD and Land Use		6.6
Adaptation		18.0
Climate finance readiness		0.3
<b>Clean Energy Financing Partnership Facility</b>		<b>297.6</b>
Clean Energy Fund (multi-donor)	Apr-07	84.7
Asian Clean Energy Fund (Japan)	Jan-08	57.1
Carbon Capture and Storage Fund (Australia)	Jul-09	74.3
Canadian Climate Fund for the Private Sector in Asia	Apr-13	81.5
<b>Urban Climate Change Resilience Trust Fund (85 UK pounds from DFID, \$5 m from Rockeller )</b>	Nov-13	<b>140.0</b>
<b>Integrated Disaster Risk Management Fund (Canada)</b>	Feb-13	<b>9.5</b>
<b>Carbon Finance (multi-donor)</b>		
Asia-Pacific Carbon Fund (up to 2012)	Nov-06	151.8
Future Carbon Fund (post-2012)	Jul-08	115.0
<b>Total</b>		<b>772.7</b>

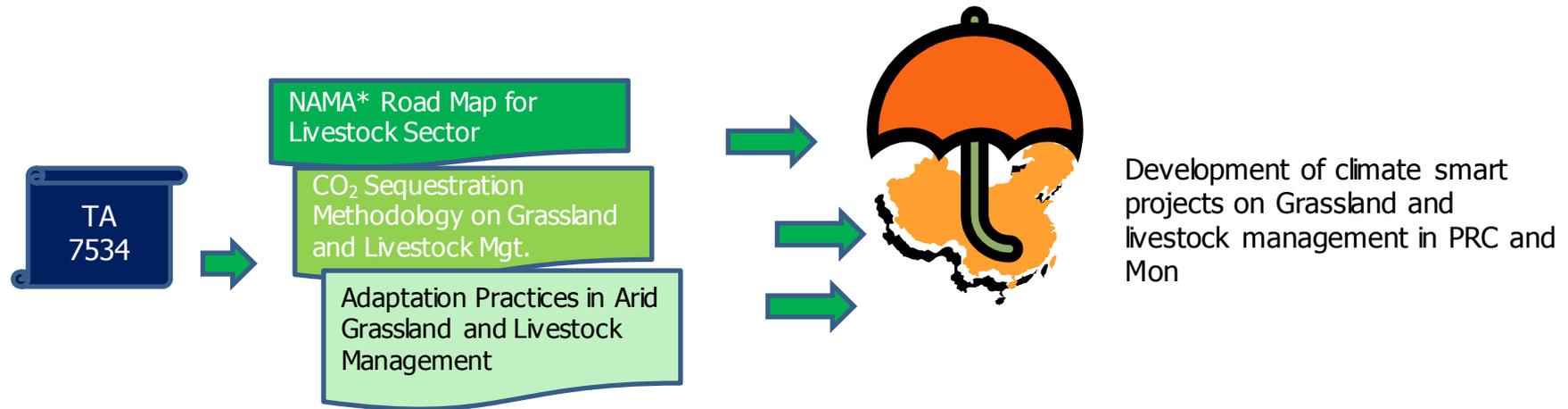
as of Dec 2013

# Adaptation Financing

- **GEF: SCCF**
  - **Supports adaptation actions in non-annex 1 parties to UNFCCC**
  - **SCCF-funded ADB projects submitted for CEO endorsement and/or approved by GEF council-\$6 million**
- **GEF: LDCF**
  - **Addresses the special needs of LDCs in relation to CC vulnerability - Supports NAPA implementation.**
  - **\$15-18 million cap per LDC**
  - **LDCs in the Pacific- KIR, SAM, SOL, TIM, TUV, VAN**
  - **Climate Proofing Development in the Pacific-\$14.5 million proposal for approval (SOL, TUV, VAN)**
- **Adaptation Fund**
  - **ADB is an MIE of the Adaptation Fund; building proposal Pipeline**
- **Green Climate Fund**
  - **Contribution to the Fund design**

# ADB Regional TA Key Deliverables and possible follow through CC Interventions

## R CDTA: Strengthening Carbon Financing for Regional Grassland Management in Northeast China (R CDTA 7532)



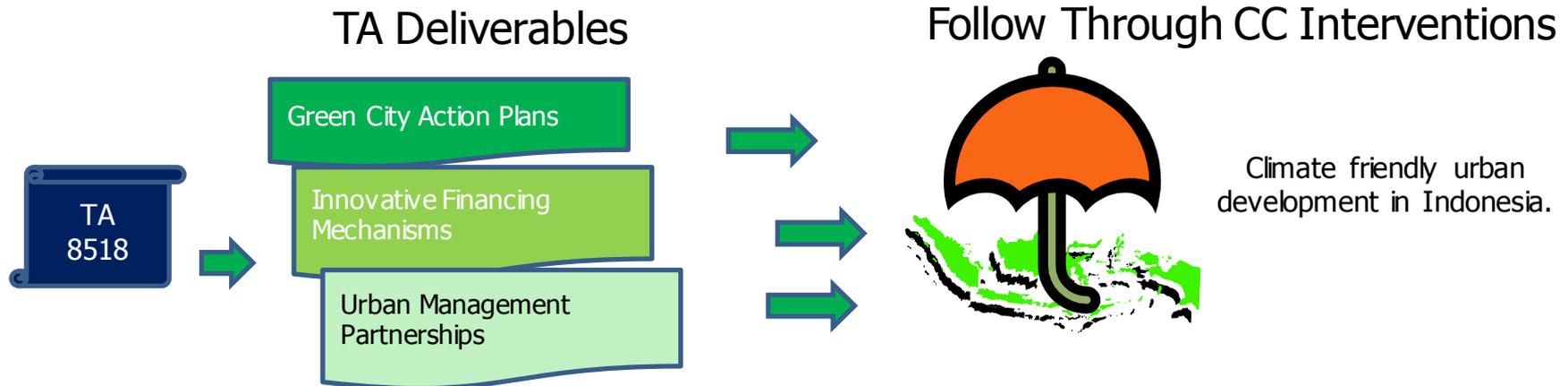
### Key Lessons Learnt

- Increase opportunities for climate finance. Combine adaptation and mitigation options in project to secure more climate financing
- Enable project replication. Most of the identified adaptation practices for Mongolia are applicable to NE PRC.

\*NAMA: Nationally Appropriate Mitigation Actions

# ADB Regional TA Key Deliverables and possible follow through CC Interventions

## CDTA: Green Cities: A Sustainable Urban Future in Indonesia (CDTA 8518)



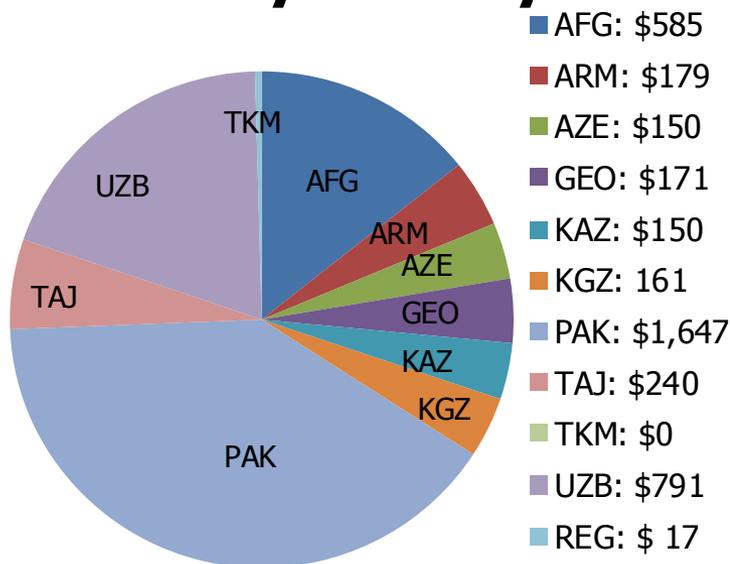
### Key Lessons Learnt

- Enabling environment for mainstreaming
  - Awareness raising, institutional strengthening; capacity building
- Practical demonstrations on mainstreaming options, rather than theoretical approaches
- Securing high level political commitment
- Ensuring multi-stakeholder engagement (beyond government agencies)
- Improved transparency and accountability
- Effective monitoring and evaluation

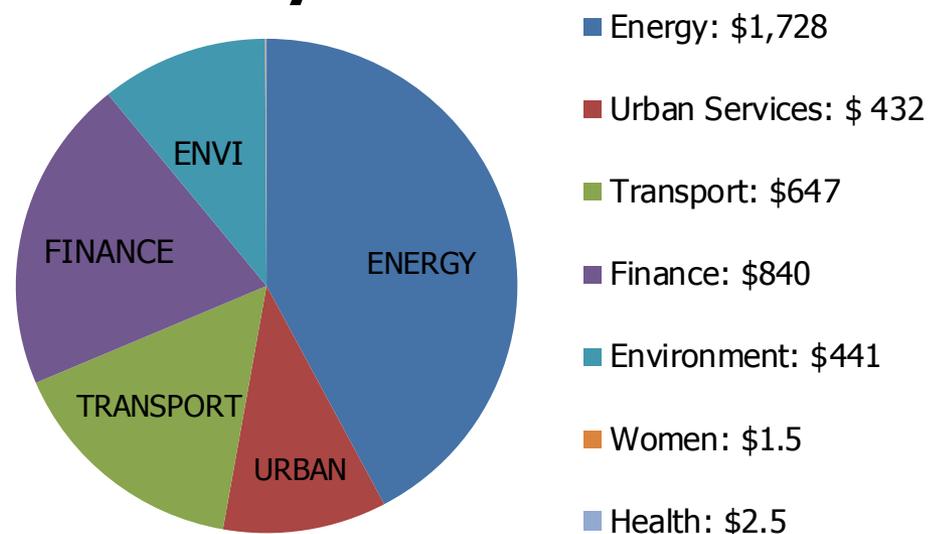
# **ADB Central and West Asia Climate Initiatives and Lessons Learnt**

# ADB Investments in Central and West Asia (New Projects Approved as of end of December 2013\*)

## By Country



## By Sector



**Total: \$ 4.09 Billion**

\*Source: CWRD MIS Report as of 31 Dec 2013

# Overview of 5 CWRD Initiatives

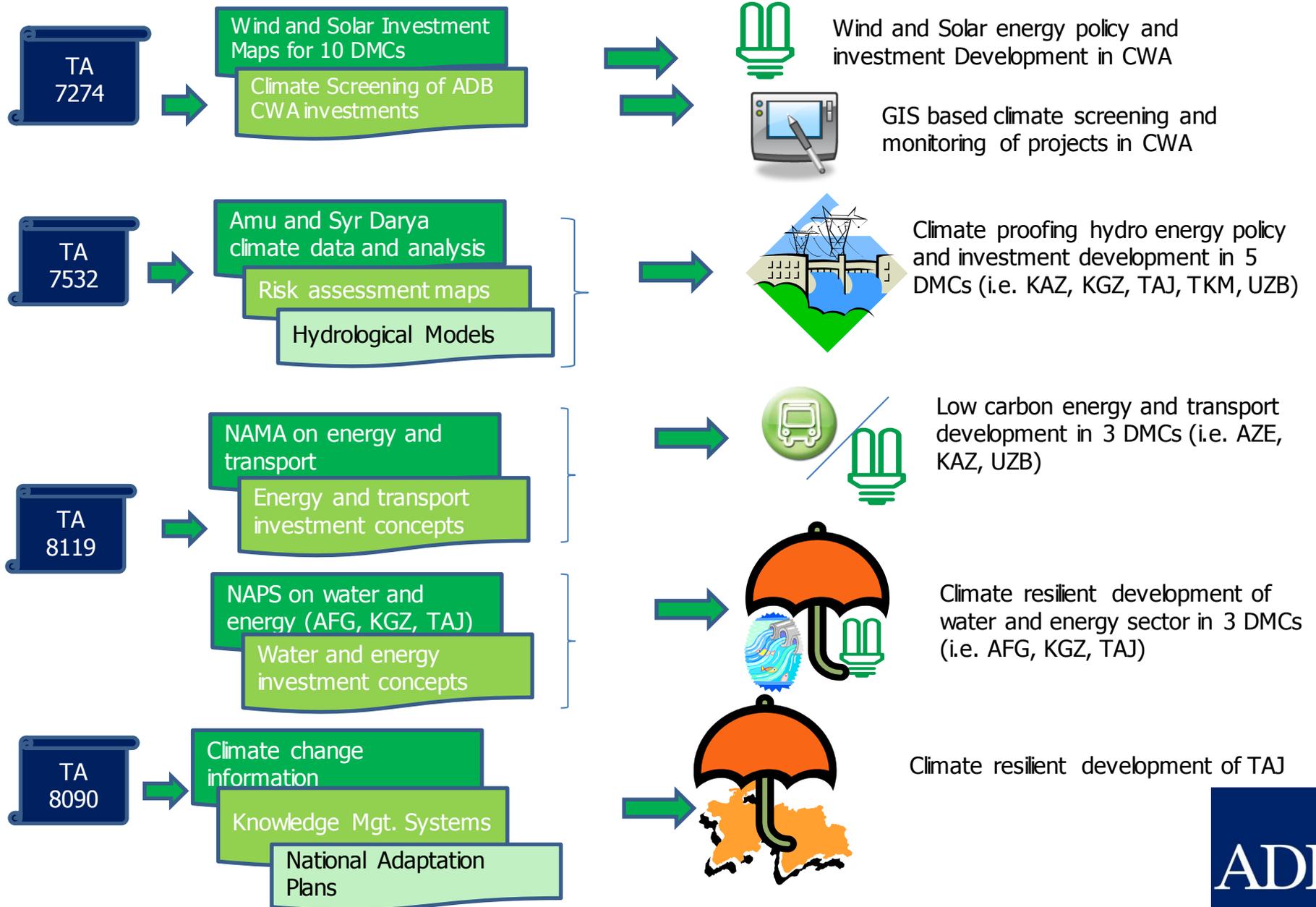
Technical Assistance Name	Mitigation	Adaptation	Coverage (number and name of DMCs)	Expected Impact	Amount (US\$)	Period
Enabling Climate Change Interventions in Central and West Asia (RETA 7274)			Regional 10 DMCs	Foster "low-carbon inclusive economic growth and climate-resilient development"	5.0 <sup>a</sup>	23 April 2009 – 31 October 2014
Economics of Climate Change in Central and West Asia (RETA 8119)			Regional 6 DMCs	"Identify priority investments for climate resilience and low-carbon growth"	3.25 <sup>b</sup>	18 July 2012 – 13 May 2015
Water and Adaptation Interventions in Central and West Asia (RETA 7532)			Regional <input checked="" type="checkbox"/> 5 DMCs	Enable "participating countries in Central Asia have more efficient national strategies for climate change adaptation"	1.25 <sup>c</sup>	13 May 2010 – 30 September 2013 (Closed)
Building Capacity for Climate Resilience (TA 8090)			TAJ	Enhance "planning capacity for climate change adaptation at national and local levels, and within vulnerable sectors and vulnerable population groups."	6.0 <sup>d</sup>	5 June 2012 – 13 May 2017
Building Climate Resilience in the Pyanj River Basin Project (Grant 0532)			TAJ	Improved livelihoods of Pyanj River Basin communities vulnerable to climate variability and change.	21.55 <sup>e</sup>	July 2013 - 30 Jun 2020

Total Funds: \$37.05M

<sup>a</sup>ADB TASF IV, <sup>b</sup>Asia Clean Energy Fund under the Clean Energy Financing Partnership Fund and Climate Change Fund,

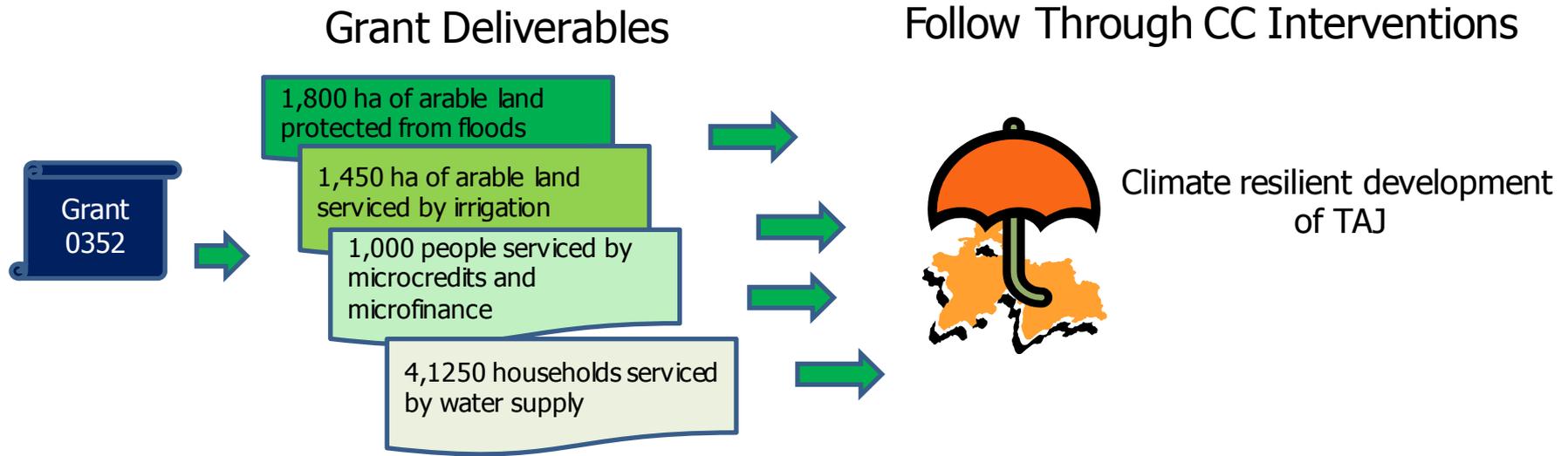
<sup>c</sup>Regional Cooperation and Integration Fund, <sup>d</sup>Strategic Climate Fund, <sup>e</sup>Strategic Climate Fund

# ADB CWA TA Key Deliverables and possible follow through CC Interventions



# **TAJ: Building Climate Resilience in the Pyanj River Basin Project**

# ADB Regional TA Key Deliverables and possible follow through CC Interventions Building Climate Resilience in the Pyanj River Basin Project (Grant 0352)



## Key Lessons Learnt

- Need to focus on local communities that are most vulnerable
- Need to continue strengthening institutional capacity of DMC central agencies
- Need to attract more private sector support for adaptation activities

# Key Lessons Learnt from CWA

## Climate Mainstreaming Initiatives

There is an evolving need to:

- **Improve climate evidence based data via**
  - **Digitization , uploading and manipulation of data on GIS platform**
  - **Using GIS for project climate screening and monitoring**
- **Nurture partnerships with DMC stakeholders, and other development agencies via**
  - **Systematic follow through on previous climate initiatives of other players**
  - **Building DMC capacity to mainstream climate in national development plans**
- **Need for coordinated and targeted interventions on climate finance readiness**
  - **Focus areas: governance mechanisms, climate financing, institutional capacity building on climate finance ready project and portfolio development**
- **Mainstream climate in lending operations within an organization**
  - **Compliance better than volunteerism**
  - **Harmonizing climate metrics and methodology in projects**
- **Strengthen stakeholder communication and coordination**
  - **Project officers need guidance on articulating climate issues**
  - **DMC focal points per department / unit need to complement each other**
- **Optimize climate mitigation and adaptation opportunities per project at the earliest possible opportunity (i.e. pre concept paper to concept paper development)**

**ADB Vision:  
Strategic Partner of Choice in Climate Change  
via**

- **Developing climate finance ++: catalyzing private capital**
- **Generating and sharing climate knowledge**
- **Fostering partnerships**

# ADB Looking Ahead

- **Continue support for clean energy investments, esp. energy efficiency**
- **Increase assistance for sustainable transport projects (e.g. urban mass transport, railways)**
- **Scale up support for climate adaptation esp. in low income countries and vulnerable sectors**
- **Strengthen integrated disaster risk management**
- **Enhance readiness of countries for climate finance such as the Green Climate Fund; actively mobilize private sector resources**



# Key Points to Live by

- **Like it or not, climate change is upon us.**
  - “Unlucky” ones (i.e., people in Pakistan, Philippines) are more aware after experiencing horrible effects of freak storms and now taking climate challenges more seriously
  - “Lucky” others, better act now than be responsible for inaction to climate change
- **May sound costly, but DMCs need to bear the cost of climate change**
  - “Business as usual” in development planning need to give way to climate ready projects
  - hard choices on quality over quantity of projects
- **Money is a scarce commodity**
  - ADB can help prepare DMCs access and leverage climate finance, and co-finance climate smart projects.

**Thank You**