



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 14-Feb-2020 | Report No: PIDA28186



BASIC INFORMATION

A. Basic Project Data

Country South Asia	Project ID P171054	Project Name Climate Adaptation and Resilience for South Asia	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Appraisal Date 16-Mar-2020	Estimated Board Date 12-May-2020	Practice Area (Lead) Urban, Resilience and Land
Financing Instrument Investment Project Financing	Borrower(s) The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), Asian Disaster Preparedness Center (ADPC)	Implementing Agency The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), Asian Disaster Preparedness Center (ADPC)	

Proposed Development Objective(s)

To create an enabling environment for climate-resilient policies and investments in select sectors and countries in South Asia.

Components

Promoting Evidence-based Climate Smart Decision Making
Enhancing Policies, Standards and Capacities
Project Management and Specialized Support

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	36.00
Total Financing	36.00
of which IBRD/IDA	36.00
Financing Gap	0.00

DETAILS

World Bank Group Financing



International Development Association (IDA)	36.00
IDA Grant	36.00

Environmental and Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Regional Context

- South Asia has experienced a long period of robust economic growth, averaging 6 percent a year, over the past 20 years.** This strong growth has translated into declining poverty and impressive improvements in human development. The number of extreme poor living on less than US\$1.90 a day dropped to 216 million people in 2015 from 275 million in 2013 and 536 million in 1990.¹ Even more remarkable, South Asian countries experienced an increase in incomes among the poorest 40 percent of 2.6 percent a year between 2010-2015, faster than the global average of 1.9 percent.
- However, these long-term development gains are increasingly threatened by the staggering social and economic impacts of climate-related hazards.** Between 1990 and 2019², over 1000 climate-induced disasters in South Asia region affected over 1.68 billion people, killed an estimated 267,000 and caused over US\$127 billion in damages. The South Asia monsoon flooding in 2019 (July-Sep) alone displaced at least 41 million people in India, Nepal, Bangladesh, and Pakistan, and killed over 1,000 people. A recent World Bank study³ concluded that 800 million (or 44%) people in South Asia today live in locations that would become moderate or severe climate hotspots by 2050 without climate action. World Bank estimates suggest that climate change could result in 62 million people in SAR being pushed below the extreme poverty line by 2030⁴ and floods alone could cost an estimated US\$215 billion annually by 2030. Extreme weather affects jobs and productivity in key economic sectors such as agriculture, urban infrastructure, hydropower, and tourism, and even put women face additional risks during and post disaster events.
- South Asia could preserve and enhance its social and economic growth by investing in climate-resilient**

¹ <http://povertydata.worldbank.org/poverty/home/>

² Calculations based on EM-Dat Data (as of July 2019)

³ Mani, Muthukumara S.; Bandyopadhyay, Sushenjit; Chonabayashi, Shun; Markandya, Anil; Mosier, Thomas Michael Rowe. 2018. South Asia's hotspots: The impact of temperature and precipitation changes on living standards. Washington, D.C.: World Bank Group.

⁴ World Bank. 2016. World Bank Group climate change action plan. Washington, DC: World Bank Group. <https://hubs.worldbank.org/docs/imagebank/pages/docprofile.aspx?nodeid=26114433>



development. Investing in resilience is both profitable and urgent as disruptions are extremely costly for governments, households and private sector and large ongoing investments in infrastructure assets will have long-lasting repercussions as poor maintenance and natural disasters result in vulnerable shocks. The incremental cost is estimated at around 3 percent of the overall investment need with a benefit of US\$ 4 for each dollar invested in resilience.⁵ In addition, improving the provision of and access to weather, water and climate-related data and information in weather-dependent economic sectors could make critical contributions to economic productivity while also enhancing community resilience to natural hazards. Stronger institutions and a higher level of service delivery capacity can foster climate-resilient development, promoting safety, security and economic well-being.

4. **Resilience can be strengthened through global and regional cooperation as countries develop the foundation and enabling environment towards a climate-resilient South Asia.** Given the transboundary nature of weather and climate, regional collaboration can help to improve the understanding of increased weather and climate variability, devise effective policy reform strategies and foster the knowledge and technology required to scale up climate adaptation action, climate finance and strengthen resilience. Resilience can be further enhanced by breaking down data into actionable information and raising awareness on the non-structural climate adaptation measures. It is essential to share this knowledge with decision makers as well as with those who are affected by actions or inactions.

Sectoral and Institutional Context

5. **SAR countries are already providing strong leadership on climate adaptation and disaster resilience.** Following the SAARC declarations in 2007 and 2008 on climate change, the SAARC Summit in 2010 concluded with the Thimphu Declaration on Climate Change, which sets an ambitious goal for reducing poverty while strengthening resilience to climate change. SAARC's report - Climate Risks in the SAARC Region: Ways to Address the Social, Economic and Environmental Challenges in SAR, is already under implementation. The ongoing South Asia Regional Hydromet Program is helping strengthen institutions, facilitate knowledge exchange, and enhance regional cooperation with respect to management of hydro-meteorological ("hydromet") risks. Considerable national investments are being made in coastal resilience and adaptation, resilient infrastructure, etc. including a World Bank active portfolio of over US\$4.7 billion to strengthen climate resilience. All SAR countries remain committed to the 2015 Paris Climate Agreement on Climate Change, through their Nationally Determined Contributions that specify priorities and actions proposed to be taken to combat climate change both through adaptation and mitigation policies.⁶ SAR countries are working towards translating these policy statements into adaptation actions at sub-national levels and to mainstream them into development programs. In order to further support IDA countries a phased approach would need to be taken with possibility for further scale up of financing. Factors for prioritization include climate risk exposure and vulnerability. Considering key results from the Global Climate Risk Index 2019, Pakistan, Nepal and Bangladesh are IDA countries which rank higher than others in the region.

⁵ Hallegatte, Stephane; Rentschler, Jun; Rozenberg, Julie, 2019. Lifelines – The Resilient Infrastructure Opportunity. Washington DC; The World Bank

⁶ Based on the INDCs the extent of global warming is estimated between 2.7 and 3.7 degrees C compared to pre-industrial levels. While it is below the 4.5 degrees BAU estimate, it is still substantially higher than the target of 2 degrees. See: <http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates>



6. **Each SAR country has formulated an overarching climate change policy, strategy or action plan.** There are significant efforts to translate these policy statements into adaptation actions at sub-national levels and to mainstream them into development programs. They have developed Nationally Determined Contributions (NDCs) that specify priorities and actions proposed to be taken to combat climate change both through adaptation and mitigation policies.⁷ All NDCs recognize in broad terms the importance of climate-smart agriculture, adaptive and integrated water management, clean and renewable energy, sustainable forest management and conservation of biodiversity, reducing disaster risk and enhancing physical and fiscal resilience, and integrated waste management. More specifically, Bangladesh, Pakistan and Nepal as priority countries under this Program is committed to mainstreaming adaptation into national development plans in priority sectors.
7. **There is ample opportunity to translate these policy statements into adaptation actions but there is current lack of climate-informed planning and investment processes primarily due to deficient or outdated data, barriers to data sharing and capacities.** The challenge for IDA countries in SAR is to develop capacity to absorb the scientific information on localized projections of spatial and temporal impacts and adopt a suite of non-structural and structural investments to build resilience to climate change. Policy reforms are expected to lead to transformations towards climate-smart planning, skills, institutional capacity building and investments. To achieve them, however, an incentive structure must be created in the form of providing cutting-edge information and expertise, and incremental financing to support climate resilient investments. There is a need for a clear understanding of how climate policy (or inaction) may impact economic growth, fiscal sustainability and the country's broader development agenda, and how fiscal and economic policy tools can be used to adapt to climate change.
8. **This project will facilitate regional collaboration among these priority countries in SAR and support them to develop standards for resilient infrastructure.** The project will have social and economic benefits by providing information for more efficient operation of weather- and climate-dependent sectors, and help mitigate weather-related risks. This would be achieved by strengthening the capacity of institutions to use, access and share climate and weather information and data to strengthen the design and planning process for more resilient investments. To this end, a regional approach will allow countries to spend their money more efficiently, pool their resources on climate change, and share this collective knowledge with governments, NGOs, the private sector, and citizens.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

1. To create an enabling environment for climate-resilient policies and investments in select sectors and countries in South Asia

Key Results

2. To achieve the PDO, the following PDO-level indicators are proposed:

⁷ Based on the INDCs the extent of global warming is estimated between 2.7 and 3.7 degrees C compared to pre-industrial levels. While it is below the 4.5 degrees BAU estimate, it is still substantially higher than the target of 2 degrees. See: <http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates>



- Improved access to regional climate information and analytics for climate-informed decision making;
- National-level sectoral decision-making and planning are better climate-risk informed;
- Regional climate resilience guidelines for key sectors incorporated into national standards;
- Sectoral investments supported to include climate risks and resilient design; and
- Institutional capacities strengthened to undertake climate informed policies and planning.

D. Project Description

3. **The Project will enable and support national-level resilience objectives and contribute to regional outcomes.** Governments in SAR will have access to (i) data and knowledge services provided by the regional program; and (ii) readily available technical assistance through the expertise and advisory services provided by regional entities, thereby strengthening the climate resilience of operations and expediting project preparation and implementation. This would enable a two-way information flow between the regional and the national levels and allow national-level activities to contribute to regional outcomes.
4. **Geographical scope:** All SAR countries will benefit from the regional activities focusing on dialogue and learning opportunities, and access to enhanced data, standards and guidelines. National level interventions under the proposed project will focus on a sub-set of countries in South Asia, in particular Bangladesh, Nepal and Pakistan in the first phase. Based on a mid-term review, the project would consult and explore expansion of the project to other SAR countries and thematic areas, based on evolving demand and the resource envelope.
5. **Component 1: Promoting Evidence-based Climate Smart Decision Making:** Preliminary assessments of regional and national data platforms and decision support systems were done in order to identify the key gaps that pose challenge to climate-informed decision making in various sectors. The assessment broadly highlighted that while there are portals that provide relatively good sectoral information, there is limited if any dynamic visualization/overlay or integration of weather/climate data with exposure and other sector-specific information for automated location-specific impact forecasting and response advisory generation. There is currently no DSS that integrates and processes a comprehensive amount of climate data (i.e., GCM, RCMs, satellite data, historical observation, global/regional NWP models, etc.) for multiple sectoral applications by various users. In terms of system functionalities, compatibility and sustainability, most portals and DSS that are currently available have relatively limited functionalities, generally do not have a mobile app feature, nor continued support ensuring bug fixes and system upgrades as technologies/systems advance.
 - **Sub-Component 1.1: Expanding SAR Regional Resilience Data and Analytics Services:** The Resilience Data and Analytics Services platform (RDAS) will be a cloud-based and AI-enabled data and analytics platform that will make available relevant climate and sector information enabling South Asian countries to make informed decisions and policies for climate resilience, based on more accurate and downscaled data and analytics. The RDAS, in addition to existing climate-related observation and early warning systems in the region, will also support overlaying different data sources, across climate and socio-economic parameters, to specify hotspots of climate vulnerability across different sectors and timescales and support planning and investment decision making. This RDAS will leverage existing data systems in countries and sectors and will deploy tools for analysis and interpretation of global and regional circulation models, and generate tailor-made downscaled information scenarios for all



SAR countries. As a dynamic platform, it will respond to evolving data needs from sectors and generate, curate and host new climate and thematic data.

- **Sub-component 1.2: Strengthening national-level sectoral decision support systems:** This sub-component will support national-level access to data, analytics and develop DSSs to enable government to utilize global, regional, national and local data for evidence-based decision making under uncertainty in priority sectors: finance, planning, budgeting, climate smart agriculture, integrated water resource management and resilient infrastructure, particularly transport. The DSSs will leverage the SAR RDAS platform (sub-component 1.1) and will build on existing DSSs being used by governments to avoid duplication of efforts (a list of existing systems is provided in Annex 3). This sub-component will also assist national meteorology agencies in providing user-relevant climate data for application in various sectors.
- **Subcomponent 1.3: Trainings for Climate-Informed Decision-Making:** This sub-component will support users of the RDAS and DSSs to systematically utilize the information and maximize use of the DSSs for climate-informed planning and decision-making in their sectors. The DSSs for four sectors – agriculture, transport, water and disaster management – have two to three user levels, namely: i) policy-level users including planning, finance and sectoral line ministries, ii) operational users including operational staff of sectoral agencies and provincial/local governments, and iii) end-users including farm extension staff, farmers’ cooperatives/groups, transport associations, local water user groups, community-based organizations, first-responders, women’s groups and communities.

6. **Component 2: Enhancing Policies, Standards and Capacities:** The objective of this component is to enable transformation of policies, standards and capacities for climate resilience and adaptation across South Asia. This would be achieved through: (i) providing evidence base and guidance for mainstreaming climate risk management into national, local and sector development planning and policies.; (ii) sharing global and regional knowledge and best practices on adaptation and resilience; (iii) developing regional sector guidelines for mainstreaming climate risk management and modifying business-as-usual standards in sector planning and investment design and; (vi) providing technical support to critical national and provincial institutions as well as community-based organizations (e.g. cooperative societies, women groups, etc.) to implement climate resilient development actions. Component 2 has three sub-components as follows:

- **Sub-component 2.1: Advisory services for policy and investment interventions:** The project will support the focus SAR countries in developing or strengthening national, local and sectoral adaptation action and investment plans. Specific support will target finance, planning and technical line ministries of priority sectors (climate change/environment, transport, water and agriculture) to diagnose, address and institutionalize climate risks, with the aim to achieve systematic climate risk management and mainstream climate- resilient planning, investment design. The specific policy areas of support are indicative and will be firmed up in a detailed work plan during appraisal. These interventions will include, but not be limited to: (i) harmonizing climate change strategies with development plans; (ii) identifying climate change-related risks and vulnerabilities; (iii) developing climate-smart investment strategies; and iv) enhancing gender-informed resilience into sector-specific climate resilience strategies in priority sectors. This sub-component will also undertake knowledge-sharing activities to



enhance challenges and lessons learned in SAR on what constitutes effective adaptation actions across government institutions. The project will leverage existing regional climate forums for policy dialogue and knowledge as delivery mechanisms to support South-South learning.

- **Sub-component 2.2: Promoting Climate Resilient Design and Standards:** This sub-component will develop technical sector guidelines and standards to guide the mainstreaming of climate risk into policy, planning and investment processes across the region. Implementing agencies will work closely with line ministries to ensure that the technical guidelines are contextualized to national, sectorial and local vulnerability contexts and needs. Ultimately, these technical guidelines are expected to guide the transformation required to incorporate principles of climate resilience into sector standards, policies, planning and investments. Similarly, this sub-component will support the modification of existing standards and regulations, where needed, to account for climate-risk conditions and gender aspects. Utilizing existing and available climate risk information and data, the implementation agencies will incorporate these into the proposed sector guidelines and advisory services.
 - **Sub-component 2.3: Implementation Support to Climate-Risk Management Solutions:** This sub-component will support sectorial line ministries and provincial/local governments to systematically integrate resilience measures and climate-resilient standards into sectorial and local investment planning, design and implementation through capacity building and technical support interventions.
 - *Capacity building:* Under this sub-component, CARE will support the capacity building, including ToTs, of national and local governments to analyse, plan, design, manage and maintain climate-resilient assets and to utilize data, data-platforms, tools, knowledge and climate smart technology adoption. Central ministries of finance and planning have been selected as entry points for the proposed capacity- building activities under this component to achieve system-level changes in planning for adaptation and enable cross-sector coordination on a national adaptation agenda, planning for development changes in planning for and with climate risks in mind.
 - *Technical Support:* Some of the specific areas that will be supported by CARE include: (i) adoption of technology solutions; (ii) climate smart institutions, governance and finance; (iii) research and development; (iv) diagnostics for adaptive design; (v) analytics for macro-level and fiscal risk management and; (vi) disaster risk financing strategies, including incremental costs assessments for climate resilience.
7. **Component 3: Project Management and Specialized Support:** The objective of this component is to ensure the successful implementation of the activities carried out under the Project. This component will finance establishing and operating the Project Implementation Units (PIUs) of the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) (US\$2 million) and Asia Disaster Preparedness Center (ADPC) (US\$3 million). In addition, the component will also finance consultancies required for the preparation and supervision of specific activities, monitoring and evaluation, trainings, exposure visits, studies for knowledge generation and sector-specific climate impacts and related interventions and inclusive practices in climate resilient planning and investments.



Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

The proposed project is essentially a TA (types 2 and 3) and it will not involve type 1 TA (preparation of future investments) or finance any civil works. E&S impacts are mainly beneficial and negative direct impacts, if any, will occur outside the scope of and further downstream from the project.

E. Implementation

Institutional and Implementation Arrangements

- 8. **The project will be financed through IDA Grants for eligible regional institutions.** The two eligible regional organizations selected for implementation are – the Asian Disaster Preparedness Center (ADPC) and the Regional Integrated Multi-Hazard Early Warning System (RIMES). ADPC and RIMES were selected after a preliminary assessment of capable and eligible regional organizations in South Asia based on the eligibility criteria for access to IDA Grants for Regional Institutions. The two implementing agencies will design, prepare and execute the activities outlined above. While funds will go to each of these two agencies, the agencies will work closely with client country ministries and all activities will go towards supporting strengthened capacity and policy framework for transformative action on climate resilience at the regional and national level. Funds will remain with the two implementing agencies and will not be transferred to client ministries.
- 9. The following outlines proposed implementation and coordination mechanisms for the project:
 - a) **Project Implementation Units:** The Project will have two Project Implementation Units (PIUs) - the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and Asia Disaster Preparedness Center (ADPC). Each PIU will utilize their respective country units for implementation of CARE activities in Bangladesh, Nepal and Pakistan.
 - b) **Implementing agencies level coordination:** A Project level Coordination Working Group (CWG) consisting of representatives from ADPC and RIMES will be set up to facilitate close coordination and collaboration between the agencies on their respective components and activities. The CWG will meet monthly to discuss progress on activities including an outline of next steps and discuss potential areas for more detailed coordination.
 - c) **National Coordination:** A mechanism for national coordination among participating beneficiary departments would be established through the setting up of National Steering Committees (NSC) in each country, chaired by respective Ministries of Finance in Nepal and Bangladesh and Ministry



of Planning, Development and Reforms in Pakistan and consist of all beneficiary departments. The committee would be convened on a bi-annual basis to review progress, assist in removing implementation bottlenecks and avoiding any potential duplication or gaps.

- d) **Regional Coordination:** The Project will use the existing mechanisms of the intergovernmental implementing agencies for regional coordination, i.e. ADPC's Regional Consultative Committee (RCC) mechanism of ADPC and RIMES' Council. RCC mechanism comprises of 26 member countries and includes representatives from Planning departments, respective national Disaster Management organizations and regional partners like SAARC, UN organizations and bilaterals. RIMES' Council, comprising of National Meteorological and Hydrological Services of RIMES Member countries is empowered to make policy decisions, on behalf of governments, concerning regional hydrometeorological data and other activities as endorsed by the Council, including implementation of CARE. The respective mechanisms will be used by CARE for strategic policy discussions, guidance, annual review of project impact, knowledge sharing, and lessons learnt.

CONTACT POINT

World Bank

Haris Khan
Senior Disaster Risk Management Specialist

Atishay Abbhi
Disaster Risk Management Specialist

Borrower/Client/Recipient

The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)
A. R. Subbiah
Director
subbiah@rimes.int

Asian Disaster Preparedness Center (ADPC)
Irfan Maqbool
Director
irfan@adpc.net

Implementing Agencies

The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)
A. R. Subbiah
Director
subbiah@rimes.int



Asian Disaster Preparedness Center (ADPC)
Irfan Maqbool
Director
irfan@adpc.net

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Haris Khan Atishay Abbhi
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Approved By

Environmental and Social Standards Advisor:		
Practice Manager/Manager:		
Country Director:	Cecile Fruman	04-Mar-2020