ADB ASIAN DEVELOPMENT BANK

China, People's Republic of: Mainstreaming Urban Climate Change Adaptation in the People’s Republic of China

Project Name	Mainstreaming Urban Climate Change Adaptation in the People’s Republic of China
Project Number	49318-001
Country	China, People's Republic of
Project Status	Approved
Project Type / Modality of Assistance	Technical Assistance
Source of Funding / Amount	**TA: Mainstreaming Urban Climate Change Adaptation in the People's Republic of China** Technical Assistance Special Fund — US$ 500,000.00
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships
Sector / Subsector	**Agriculture, natural resources and rural development** - Rural flood protection **Energy** - Electricity transmission and distribution **Transport** - Urban public transport - Urban roads and traffic management **Water and other urban infrastructure and services** - Urban flood protection - Urban policy, institutional and capacity development - Urban sewerage - Urban water supply
Gender Equity and Mainstreaming	Some gender elements
Description	The technical assistance (TA) will summarize expected climate change phenomena and impacts in the various climate zones of the People's Republic of China (PRC), assess climate change risks, review and assess relevant knowledge resources, and prepare international and domestic good practice cases on urban climate change adaptation (UCCA). The TA will align, and as much as possible, link to global and regional climate change adaptation initiatives. It will be coordinated and create synergies with other ongoing TAs both in the PRC and throughout the Asian Development Bank (ADB). UCCA toolkits will be compiled using readily available best practice case examples. Technical guidelines and standards will be prepared, aiming at providing options to improve and mainstream UCCA in the PRC. The guidelines will consider the PRC's various geographical climate risks on urban areas, infrastructure and assets for various types of cities, and risks to public safety and human health. The UCCA guidelines will include recommendations for planning and actions for existing and new urban areas. They will also consider integrated land use and adaptation planning, and options for ecosystems-based adaptation especially for planning of new urban areas using green infrastructure in the form of green space and various synergies that ecosystems services provide. The TA will develop and pilot test recommendations for policies, institutional arrangements, and governance to observe climate change, plan climate-proof and resilient adaptation for existing urban areas, and plan climate resilient new urban areas integrating land use, transport, and green open space applying an ecosystems-based adaptation approach, and review and improve city-level early warning system (EWS) and mechanisms. Pilot cities will be selected from a pool of pre-selected cities by the executing agency. The TA will provide training and support to apply the technical guidelines and institutional arrangements, and test Smart City and geographic information system applications to improve UCCA. Capacity building will be included in the form of disseminated reports, consultations with line agencies, workshops, and training events as well as on-the-job training (OJT) for the executing agency and pilot cities. The TA is included in the country operations and business plan (2017 2019) for the PRC.

Project Rationale and Linkage to Country/Regional Strategy	Climate change has in recent years led to an increase in extreme weather, resulting in disasters that claimed numerous lives, assets, and livelihoods globally, especially in Asia, including the PRC. Disasters were amplified also due to unsuitable land use planning and developments in flood prone areas and unintegrated, isolated flood protection structures. Future impacts of climate change are expected to be even more frequent and severe. Mitigating more severe changes to the global climate is a key challenge of our time. At the 21st session of the United Nations Framework Convention on Climate Change Conference of the Parties in Paris in December 2015 (UNFCCC COP 21), limiting global warming to below 2 degrees was agreed by all participating countries. However, for the PRC, a significant temperature increase by up to 4.5 C in the north and west, and by up to 3 C in the southeast is projected by 2100 compared to 1960 1990 averages, and a precipitation increase of up to 20% is expected in the PRC's northeast. Climate change-related impacts include heat stress, lower levels of water, food and water insecurity, water pollution, sea level rise and storm surges, inland flooding, extreme weather events, heavy rainfall and strong winds, ocean acidification, and accelerated environmental degradation. Urban areas are particularly exposed to adverse impacts to climate change due to location of many cities in low-lying river and coastal areas, and due to high concentrations of residents, infrastructure, and fixed assets. Continuing rapid urbanization, and expected increase in frequency and severity of climate change-related disasters, increase risk exposure. The need for UCCA is urgent: (i) climate-proofing existing cities and infrastructures, (ii) planning new urban areas to be climate change resilient, and (iii) establishing EWS for disaster preparedness and response. Successful UCCA through structural and non-structural measures, as already demonstrated in selected water, food, energy, and transport projects, will lead to more resilient cities and communities, and contribute to sustainable development goal achievement. Cities also have the greatest potential for reducing greenhouse gas emissions, especially in rapidly growing and industrializing economies. Green infrastructure and ecosystems-based adaptation, low-carbon buildings, energy, transport, and industries have the potential to reduce emissions while also contributing to increasing climate change resilience. However, many rapidly developing cities lack adequate policies, financial, technological, institutional, and governance capacity required for effective mitigation and adaptation, and the synergies created by integrating both. The PRC released a National Climate Change Adaptation Strategy in 2013, indicating the types of adaptation measures that should be adopted, including enhancing risk management and improving disaster response systems affecting human health, infrastructure, and other private and public investments. To implement the Strategy, the National Development and Reform Commission (NDRC); the Ministry of Housing, Urban, and Rural Development (MOHURD); and other relevant line ministries, released the Urban Climate Change Adaptation Action Plan (UCCAAP). However, current technical standards for land-use, urban master planning, infrastructure and building construction, operation, and maintenance do not adequately incorporate climate change projections or their potential risks. Current critical urban and urban-rural infrastructure and public and private fixed assets are not designed to withstand climate change-related shocks and stresses like extreme weather events, and they are not designed as systems mitigating disaster impacts. UCCAAP is a policy document and needs to be complemented by technical guidelines, a framework defining institutional coordination and responsibilities, and implementation arrangements to enable city clusters, cities, and their rural hinterlands to plan and effectively implement structural and non-structural UCCA measures. The TA is urgently needed to support development and pilot testing of technical guidelines, policies, and administrative regulations to implement UCCAAP, to enable mainstreaming of UCCA. The TA builds on significant past experience and links to ongoing ADB projects, which include but are not limited to loans and TA projects: (i) Jiangxi Pingxiang Integrated Rural-Urban Infrastructure Development (Loan 3281-PRC), (ii) Institutionalization of Urban-Rural Environmental Masterplanning to Guide Environmentally Sustainable Urbanization (TA 8537-PRC), (iii) Modelling Urban Low-Carbon Development in Xiangtan (TA 8948-PRC), (iv) Building Climate Change Resilience in Asia's Critical Infrastructure (TA 9191-REG), (v) Addressing Disaster Risk through Improved Indicators and Land Use Management (TA 7929-REG), and (vi) Urban Environment and Climate Change Adaptation Project (Loan 3340-VIE); and knowledge products: (vii) Enhancing Urban Climate Change Resilience: Seven Entry Points for Action, (viii) Green City Development Tool Kit, and (ix) Nature-Based Solutions for Building Resilience in Towns and Cities: Case Studies from the Greater Mekong Subregion, and others (footnote 8). The TA will also align with international adaptation knowledge and initiatives and it will consider gender and vulnerable people's aspects of climate risk and resilience. The technical guidelines will include a list of risk and actions categories, and methods for assessing risks and vulnerabilities of cities and urban-rural areas, peoples' lives, health and livelihoods, and public and private assets. The technical manual will include options for structural and non-structural interventions for UCCA for both existing and newly planned urban areas. Structural measures include guidelines for integrated land use planning and risk assessment, green infrastructure to benefit from various ecosystems services, integrated climate resilient infrastructure and private assets planning, climate-proofing of existing infrastructure systems, and retrofitting of existing assets and infrastructure. The technical guidelines will also include dimensions of UCCA through improved resilience of public health. Non-structural measures include general awareness of climate change-related exposure to risks, EWS, and disaster preparedness mechanisms. Capacity development and knowledge sharing will be a key activity of the TA. Involving various line ministries and agencies on the national, provincial, and municipal levels through presentation of TA findings, consultations, training workshops, and dissemination of TA reports, officers and trainers will be trained, and coordination will be enabled and promoted. The TA is aligned with the strategic priorities of the ADB Midterm Review of Strategy 2020 and the country partnership strategy, 2016 2020 for the PRC to support the strategic priority of managing climate change and the environment. By supporting the PRC's efforts to improve and mainstream UCCA, this TA is aligned with ADB's Urban Operational Plan, 2012 2020. Further, the TA is in line with the key policies of the PRC Government's Thirteenth Five-Year Plan, 2016 2020; PRC National Climate Change Adaptation Strategy (2013); National UCCAAP (2016); and key strategies of the PRC's National New-Type Urbanization Plan (2014 2020), as well as related policies and programs by MOHURD, including Low-Carbon Eco-Cities, and Sponge Cities.

Impact	Urban and urban-rural climate change adaptation systems and capacities in the PRC improved and mainstreamed.

Project Outcome	
Description of Outcome	Technical standards, policies, and institutional arrangements for urban and urban-rural climate change adaptation, and mechanisms for strengthening resilience to extreme weather events in the PRC enhanced; and enabling mechanisms for mainstreaming UCCA established
Progress Toward Outcome	
Implementation Progress	
Description of Project Outputs	Technical guidelines, policy recommendations, and framework for institutional arrangements enabling mainstreaming of structural and non-structural actions for UCCA in the PRC delivered Support to pilot cities in UCCA planning of structural and non-structural measures; and testing and refining of technical guidelines, policies, and implementation arrangements completed Inclusive capacity development accomplished in the form of (i) on-the-job training and workshops in pilot cities; (ii) workshops for concerned agencies; and (iii) dissemination of TA outputs and recommendations
Status of Implementation Progress (Outputs, Activities, and Issues)	
Geographical Location	

Summary of Environmental and Social Aspects
Environmental Aspects
Involuntary Resettlement
Indigenous Peoples
Stakeholder Communication, Participation, and Consultation
During Project Design
During Project Implementation

Business Opportunities	
Consulting Services	This TA will require inputs from international and national specialists, who will be recruited to deliver the three outputs with a total of 41 person-months of consultant inputs, 13 person-months international, 28 person-months national). The consultants will be engaged through a firm in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) using the quality- and cost-based selection method, with a quality cost ratio of 90:10 using simplified technical proposal procedures.

Responsible ADB Officer	Rau, Stefan
Responsible ADB Department	East Asia Department
Responsible ADB Division	Urban and Social Sectors Division, EARD
Executing Agencies	*Ministry of Housing and Urban-Rural Development* *9 San Li He Road, Haidian District* *Beijing 100835* *People's Republic of China*

Timetable	
Concept Clearance	24 Jul 2017
Fact Finding	02 May 2017 to 05 May 2017
MRM	-
Approval	14 Aug 2017
Last Review Mission	-
Last PDS Update	25 Jul 2017

Project Page	https://www.adb.org/projects/49318-001/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=49318-001
Date Generated	16 August 2017