

# Climate change and our global communities

Understanding humanity's vulnerabilities and developing appropriate risk mitigation and resilience measures demands a rare set of expertise. You'll find them here.

We are an international development, management and infrastructure consultancy focused on guiding you through society's biggest challenges.

Climate change is an area of unprecedented global concern and significance. The regions of the world most at risk from the impacts of climate change are often more economically disadvantaged with the least robust infrastructure systems. The growing severity of climate related impacts demands urgent action to slow and stabilise global temperature rise, to manage and adapt to the already unavoidable impacts, and to identify and mainstream the social opportunities that investment in climate resilience will bring.

Our team comprises internationally recognised climate experts, IPCC authors, policy specialists, project preparation professionals, governance and investment specialists, and infrastructure engineers. We are collectively focused on the understanding of climate risks in international development, and align our expertise to advise and deliver the investment required to create a resilient society.



## We can help you with

- National policy and adaptation planning
- Carbon management
- Climate finance and investment
- Service and asset system interdependencies, and system vulnerability to climate impacts
- Climate projections
- Climate change risk assessments
- Resilience guideline development
- Climate adaptation plans
- Investment and capital expenditure planning
- Urban and spatial planning
- Smart infrastructure solutions
- Economic and cost analysis
- Stakeholder engagement, capacity building and training
- Readiness activities
- Project preparation and funding applications
- Design review, implementation, monitoring and evaluation

# Embedding resilience where it's needed most

Increasingly severe and frequent climate-related events such as prolonged drought, extreme rainfall, sea-level rise and coastal storm surges are resulting in more sustained harm to human safety, the disruption of livelihoods and increased physical losses measured in hundreds of billions of dollars.

As we approach the threshold of dangerous climate change as defined by the Paris Agreement, we were engaged by the World Bank to produce guidelines for increased resilience of critical infrastructure such as dams, hydropower, water and sanitation – placing us at the forefront of setting resilience guidelines in these infrastructure sectors.

Promoting Climate Action interventions, backed by our approach to prioritised risk management against a backdrop of significant climate variability, helps equip our clients – and end user beneficiaries – with more informed and future-resilient choices.

## Our key areas of focus:

### Accessing climate funds

We have an in-depth understanding of multilateral and bilateral financing mechanisms, as well as project preparation from concept through to full proposal. We are also an accredited observer to the Green Climate Fund (GCF), and a key contributing member of the Climate Markets Investment Association (CMIA).

### Climate change policy

We offer technical advisory services to help you understand, translate and formulate policy in order to deliver the appropriate climate change mitigation and resilience measures that support the Paris Agreement.

### Resilient cities

Connecting with our urban specialists across all sectors, we can provide a complete resilience service, climate resilience capacity building, and aid in the development of adaptation planning.

### Resilient infrastructure

We can provide you with a suite of tailored recommendations to address the impacts of climate change across various asset and service systems, assessing system interdependencies and vulnerabilities, on a risk-based, cost-optimised approach.

### Investment and insurance sector services

We address specific investment and insurance concerns around climate change, such as finance risk, underwriting and stranded assets – both physical and financial. Our financial sector services target opportunities associated with mobilising private sector climate funding, co-funding arrangements with development finance institutions, insurance, and enabling PPPs.

## Recent projects

We integrate climate resilience thinking into all service areas: cities and planning, infrastructure design, education, policy, thought leadership and finance.

We understand the need for a sound depth of understanding in all of these related and inter-dependent areas. We work closely with stakeholders to co-create interventions and turn

these into effective resilience solutions. The following project examples show how our expertise bridges multiple sectors, drawing the best experience from each as we contribute to the development of more resilient and empowered societies.



## Transforming investment

### Project

Tajikistan Climate Resilient Water Infrastructure Programme

### Location

Tajikistan

### Client

EBRD-GCF

### Expertise

Climate governance, adaptation assessment, stakeholder engagement

### Opportunity

Tajikistan, in line with international agreements under the United Nations Framework Convention on Climate Change (UNFCCC), is eligible for the Global Environment Facility's Special Climate Change Fund (GEF SCCF) and the Green Climate Fund (GCF), as well as the Climate Investment Funds' Pilot Programme for Climate Resilience (PPCR). These finance mechanisms are creating opportunities for recipient countries to build climate resilience through transformative investments that support priority socio-economic sectors, improved infrastructure and private sector growth.

### Solution

A country-wide water programme to improve the climate resilience of household water services in twenty communities in Tajikistan and strengthen governance and necessary institutions to improve the climate resilience of household water services.

### Outcome

All relevant environmental and social information required for accessing GCF funds was included in the documentation to support the EBRD application, specifically addressing the following areas of importance to the GCF: gender, climate change/adaptation assessment and stakeholder engagement and disclosure.

## Piloting low carbon investment

### Opportunity

To scale up climate finance in the public and private sectors.

### Solution

Evaluation of a new approach of investing UK climate finance that aims to demonstrate that transformation to low carbon development is possible, replicable at scale, and commercially viable.

### Outcome

Insight into how to mobilise low carbon investment in developing countries and whether the UKCI Pilot is a model that should be rolled out across the ICF.

### Project

Evaluation of UK Climate Investment Pilot in India and East Africa

### Location

India and East Africa

### Client

UK Department of Energy and Climate Change

### Expertise

Carbon investment



## Guiding global resilience

### Opportunity

To provide real-world climate resilient options for urban water, sanitation and hydropower service providers in developing countries, supported by the World Bank, to a range of potential climate changes and natural disasters.

### Solution

Analysis of climate data, scenarios, costs, contextual elements, and financing options, as well as workshops and case studies from a variety of countries to provide evidence on how climate change is being tackled in the hydropower, urban water supply and sanitation sectors.

### Outcome

Improved guidance on service delivery and sustainable management of these critical services. As a result, decision-makers' and service providers' activities are more 'climate informed' and responsive despite deep future uncertainties.

### Project

Global studies on: (i) Climate Resilient Hydropower and Dams and (ii) Water Supply and Sanitation Services

### Location

Global

### Client

World Bank

### Expertise

Technical guideline development, stakeholder consultation





## Knowledge sharing

### Project

Framework for Effectiveness and Resilience of Irrigation

### Location

Nepal

### Client

Climate Development Knowledge Network

### Expertise

Climate projections, framework development

### Opportunity

The Government of Nepal has made investing in irrigation a high priority, but there is increasing concern that climate change will affect the type of development needed, or require new approaches.

### Solution

Improve the approach and methods for planning and delivery of efficient, effective, equitable and climate resilient irrigation systems. Assessment of current situation and practices, review of international best practice and climate projections to develop future guidance.

### Outcome

A framework to increase the climate resilience and effectiveness of small and medium scale irrigation systems.

## Mainstreaming climate resilience in resource management

### Opportunity

Institutional and water law reforms which lay the foundation for long-term restructuring of the water sector necessary to support continued social and economic development.

### Solution

Documenting best practice case studies, integrated water resource management planning, water tariff reform and future-proofing of a restructured water sector.

### Outcome

Improved livelihoods through equitable access, knowledge dissemination, more sustainable use of water resources and community-level water savings.

### Project

Water Resources Demand Management Assistance Project (WRDMAP)

### Location

China

### Client

Ministry of Water Resources, People's Republic of China

### Expertise

Advisory work, benchmarking, knowledge dissemination, integrated water resource management



## Technology transfer

### Opportunity

Enhancing knowledge on climate technologies and financing to promote investment in Asia Pacific.

### Solution

Consolidation of knowledge on climate policy, technology and finance. Review of climate technology investment models at ADB.

### Outcome

Production of publishable reports to promote the work of the climate technology and finance centre.

### Project

Transfer of Climate Technologies to Asia and the Pacific

### Location

Asia Pacific

### Client

Asian Development Bank Climate Technology Finance Centre

### Expertise

Climate policy, climate finance





## Prioritising action

---

### Project

Using UK Expertise to Help Indian Cities Manage Climate Risks

---

### Location

India

---

### Client

UK Foreign and Commonwealth Office

---

### Expertise

Decision support, policy, planning

---

### Opportunity

To understand the climate induced risks faced by Indian cities and planned infrastructure, and suggest policy and investment responses based on UK experience and expertise.

### Solution

Development of risk profiles for Indore and Amravati and a framework/tool for a decision support system for city level policy makers.

### Outcome

Robust insight into the vulnerability and exposure to climate change impacts faced by infrastructure and people in Indian cities, identification of hotspots for priority action, and ultimately protection of Indian and foreign investments in Indian cities.

## Community level response

---

### Project

Climate Change Response Strategy

---

### Location

KwaDukuza, South Africa

---

### Client

KwaDukuza Municipality

---

### Expertise

Strategy, carbon footprinting, adaptation

---

### Opportunity

The Municipality declared its commitment to better planning for the future and take climate change action during COP17 in Durban in 2011.

### Solution

A climate change response strategy which identified mitigation and adaptation options for natural, built and socio-economic systems.

### Outcome

Reducing the local carbon footprint and improving climate resilience. The strategy is also informing KwaDukuza's input to the International Council for Local Environmental Initiatives, helping to align strategies and processes.



## Opening opportunities with connected thinking.

For more information, search 'Resilience, Mott MacDonald' or contact [climate.resilience@mottmac.com](mailto:climate.resilience@mottmac.com)

**mottmac.com**