Resilience to the physical impacts of climate change: Our position and commitments

Even if anthropogenic greenhouse gas emissions could be halted today, climate change will continue for decades to come and we can expect sea level rise well into the next century.

Global average temperature has increased by 1.1°C since pre-industrial times, disrupting climatic patterns and producing more frequent and severe weather events, damaging biodiversity and ecosystems, causing sea level rise and extending the range of many diseases. These changes are happening alongside population growth, urbanisation and infrastructure expansion. As a result, people will experience harm to their health, infrastructure and the environment, as well as greater economic loss if we do not take steps to improve resilience to climate change.

Under the Paris Agreement of 2015, countries are committed to preventing the global temperature rising more than 2°C above the pre-industrial average, targeting a maximum increase of 1.5°C. Keeping global warming within this range has many social and economic, as well as environmental, benefits. Further warming will significantly worsen the impacts, such as more severe and frequent storms and flooding, accelerated coastal erosion, more heatwaves and wildfires.

Unprecedented investment in climate resilience – at least US$1.8trn globally per year between 2020-30 – is needed to avoid almost US$7trn of losses resulting from the social, environmental and economic impacts of climate change. However, we can minimise costs and accrue benefits if we and our clients embed climate action to improve climate resilience in our strategies and decision-making.

The Global Commission on Adaptation cites the benefit-to-cost ratio for investment in resilience as ranging from 2:1 to 10:1 and higher in some cases. Our work supports this. We know that when organisations act to prevent direct losses, they can create wider opportunity for themselves, the organisations they transact with, their workforce, customers, neighbouring businesses and communities.

Our journey so far
Mott MacDonald is working to accelerate action on climate change resilience by leading on our corporate management of climate change risks, developing industry best practice and standards as well as shaping how businesses respond to the physical impacts of climate change.

We have developed industry guidance for the World Bank to incorporate climate resilience into the hydropower and water and sanitation sectors. We have developed guidance for the Institute of Environmental Management and Assessment on the incorporation of climate change into the Environmental Impact Assessment (EIA) process.

We are currently leading the development of the Physical Climate Risk Assessment Methodology with the Coalition for Climate Resilient Investment (CCRI). The CCRI is a flagship COP26 initiative to embed physical climate risks and resilience into investment decisions around the world.

1. Beyond 2°C climate scientists expect a ‘tipping point’ will be reached at which climate change runs unstoppable away. Achieving the Paris Agreement requires all mature industrial economies to reduce their greenhouse gas emissions to net-zero by 2050 and all economies globally to be net-zero by 2070. Read our position and commitments on net-zero greenhouse gas emissions

2. Global Commission on Adaptation, ‘Adapt now: a global call for leadership on climate resilience’

3. Mott MacDonald, ‘Climate change and business survival’
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We have developed our expertise over the past two years by embedding a process for the systematic identification of physical climate change risks in our business management system. We implemented mandatory training for staff, and enhanced training for our sustainability professionals and other key roles in the business where the identification and management of physical climate risks is needed. We now screen our projects for climate risks and are working with our clients to embed resilience throughout the project lifecycle.

We also continue to contribute to key international bodies and fora to support the strengthening of a global response to climate change adaptation and resilience. We contributed to the IPCC Sixth Assessment Report on the status of finance for adaptation and resilience, and our wider resilience team is supporting the Climate Resilience Hub at COP26 by convening the programme for water infrastructure as well as health and wellbeing.

We have supported our clients in innovating on their projects and in becoming industry leaders across sectors and in all regions of the world. Our approach links our knowledge of climate science and hazards to the design and management of social, environmental and economic infrastructure. We assist our clients to assess their exposure to risk from the physical impacts of climate change, develop resilience strategies involving changes to our clients’ assets and operating systems, understand their residual risks, develop adaptation pathways and then disclose their financial risks. We are also proactively working with our clients and partners to demonstrate the financial and economic case for investing in resilience.

Our commitments

As a consultant
We will help our clients understand how climate change risks will affect them at the earliest stage of our work to help them make informed decisions. Specifically, we will help our clients plan for a 2°C scenario and prepare for other possible scenarios over different timeframes.

As a core part of our services, we will promote and instigate interventions that will adapt projects to the changing climate, improve resilience and, where practical, have system-wide benefits.

We will bring together the relevant strands of our global capability and capacity to help our clients address the impacts of climate change as they manifest themselves across sectors and geographies, bringing creative and innovative ideas and design solutions to the table. We will also seek to shape the market and industry standards using the highest quality scientific knowledge and evidence to support policy and business decisions.

As an employer
We will enable and encourage our colleagues to be part of our global response, as climate resilience is an objective to which we can all contribute.

We will develop our capacity by providing skills, training and experience to our employees to foster confident, open attitudes that encourage people to come forward with new ideas and by driving technical and financial innovation to meet the challenges arising from climate change.
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As a global influencer
We will continue to inspire thought leadership, invoke the challenge and promote debate on how society can develop resilience by adapting to climate change. We will contribute engineering and development expertise to initiatives that support adaptation and resilience. We will also work with our clients and interdisciplinary teams to understand system-wide interdependencies in order to build social, environmental and economic resilience to predictable and unpredictable shocks.

As a business
By the end of 2022, we will identify climate risks and opportunities in our larger projects and by the end of 2024, we will work with our clients to identify and assess climate-related risks in all our projects.

Our actions
1. We will, where possible and with our clients’ consent, help them to identify, assess, manage and disclose their climate-related risks with the following actions:
   - Systematically review climate risks in our clients’ projects and inform them of the potential harms from the impacts of climate change at the earliest stage of every project.
   - Collaboratively assess the range of climate risks that they face using scientific evidence and develop holistic resilience and adaptation plans.
   - Help our clients anticipate and respond to evolving policy, regulations, markets and standards.
   - Identify solutions that promote resilience through adaptation pathways, as well as positive social and health outcomes, and wider economic and environmental benefits.
   - Continue to develop and apply best practice in integrated climate resilience, such as nature-based solutions and regenerative design.
   - Continually improve and refresh our digital solutions to support an effective and consistent approach to climate resilience.
   - Work with our clients to manage climate-related risks and continue to develop and apply best practice in climate change risk management, including understanding the economic costs and benefits associated with investing in resilience.

2. We will strengthen our global business and minimise risks by:
   - Incorporating the latest scientific knowledge into our work and maximising its use, working with professional bodies and academia to bring insight, develop new thinking and deliver solutions for our clients.
   - Continuing to expand our global climate change service offerings with hubs in all our core territories, to provide technical and risk expertise in support of a local response to climate change, as needed by our clients.
   - Undertaking climate risk assessments for our global offices and offering support to prepare for and respond to the effects of climate-related events. We will do this by integrating climate risk management into our office environmental plans and by providing training to designated staff in each region.
3. We will continue to fund contributions to climate science and international initiatives that bring about transformational action on climate change resilience and adaptation.

4. We will work with our peers and clients to provide thought leadership and support commitments on climate change resilience and adaptation.

5. We will seek opportunities on our projects for wider social, economic and environmental benefits, and work to realise them.

6. We will, where applicable, look into what support might be available for our employees through our employee benefits systems with new initiatives that enable them to implement low-carbon, climate-resilient actions in their own homes and communities.

7. We will publicly disclose our exposure to climate risks, following the recommendations of the Taskforce for Climate Related Financial Disclosure.

8. We will review and publish this position paper annually to demonstrate our progress and ensure it continues to reflect our ambitions.

Will you join us on this journey?
We would be delighted to receive your thoughts and greatly encourage your collaboration on the above commitments. Please contact madeleine.rawlins@mottmac.com, or sally.sudworth@mottmac.com.

Mike Haigh
Executive Chair

4. For example, investments paid back through monthly salary deductions in the same way that we currently manage childcare, season tickets and healthcare.