



Environment



Environment

Skills and services

Key services

Baseline surveys
Biodiversity assessment
Brownfield development
Capacity development
Clean technology appraisal
Costal zone management
Development planning
Due diligence audit
Environmental audit/impact assessment/
management systems/monitoring/
policy development
Environmental risk assessment
Expert witness
Flood risk assessment
Hazard assessment
Health impact assessment
Institutional strengthening
Integrated river basin management
Land condition surveys
Land use planning
Landscape architecture and design
Legislation development
Lenders' advisory role
Natural resources management
Planning and policy development
Project preparation and management
Public consultation/inquiry support
Permitting and compliance
Social impact assessment
Strategic environmental assessment
Sustainability appraisals
Training
Transboundary environmental management
Urban master planning and regeneration
Waste management
Water resource planning

Specialist skills

Policy and planning
Carbon footprinting/finance
Climate change adaptation and mitigation
Conservation
Cost-benefit analysis
Environmental economics
Forestry management
Landscape planning
Life cycle analysis
Public communications
Socio-economic assessment

Sustainable development/technology/transport
Waste minimisation

Engineering

Contaminated land remediation
Energy from waste schemes
Flood protection
Green building design
River engineering
Landfill
Pollution control (air, land and water)
Radioactive waste
Renewable energy
Soil conservation
Solid waste management/treatment
Water and wastewater treatment

Modelling

Atmospheric
Building environment
Decision support systems
Dispersion
Emissions modelling
Flood risk
Geographical Information Systems
Groundwater
Hydraulic
Marine and coastal
Noise
Odour
Pedestrian movements
Public transport
River and estuary
Traffic
Wastewater treatment
Water quality

Surveys

Air quality
Bathymetric
Ecology – freshwater, marine and terrestrial
Hydrogeology
Hydrology
LIDAR
Marine
Noise and vibration
Remote sensing
Stakeholder and social analysis
Topographic
Traffic
Visual impact assessment
Water quality

For details see www.environment.mottmac.com

We are at the forefront of renewable energy generation, including the environmental assessment, planning and design of wind farms.



Over-ploughing and grazing have resulted in severe erosion and degradation of the Eurasian steppes. We're working on a European Union-funded programme to reverse the decline, training local people in state-of-the-art farming, land management and conservation techniques.

Identifying the issues

Environmental concerns continue to move up the corporate agenda. Ever-increasing public awareness of environmental issues, better lobbying by pressure groups and stricter enforcement by environmental regulators means the onus is on business to put more time and resources into managing its environmental impacts.

The new millennium has brought many changes including global climate change and water resource issues. New legislation, such as the European Union's Water Framework, or initiatives, such as the private finance sector's Equator Principles, call for greater levels of consultation and stakeholder cooperation. And new approaches to the planning of flood defence, resources and environmental protection schemes have been introduced to mitigate the impact of change.

From governments and multi-nationals to large and small business, everyone has a part to play in balancing the demands of development and operations with environmental impacts on people, nature and the earth's resources and climate. And Mott MacDonald as a world leader in the supply of environmental and sustainability services is poised ready to help our customers do this.

We provide holistic services, taking care of every aspect of a project from conception to completion. The way we do business and our partnering style, whether with customers, contractors or colleagues, is based on respect. We build long-term relationships with our clients and aim to deliver success and excellence on every assignment through our commitment and determination.



The global climate



A chemical facility in Jinan Province in China was venting 360 tonnes per annum of HFC-23, a by-product of refrigerant production. We designed an incinerator to destroy HFC-23 and it's now eliminating the equivalent of 4 million tonnes of CO₂ per year from the atmosphere.

Never has the global environment been such a hot topic. Changes in law and public opinion mean that businesses are now pressured to report on their environmental impacts, including their energy use and carbon footprint. The Kyoto Protocol and the EU Emissions Trading Scheme provide opportunities for the development of innovative schemes that reduce emissions.

Whilst there will always be arguments over the causes of climate change and how to control them, its effects are already with us and all of us will have to live with its consequences. Changes in climate will cause droughts where once there was plentiful water and floods where once there was little risk. The balance of our ecosystems could change, with existing habitats and species becoming extinct and new, unwelcome species taking hold.

Mott MacDonald's breadth of skills, sectors, services and global reach, and our understanding of the natural environment make us one of the world's top players in responding to the challenges posed by climate change. From understanding and planning for the long-term impacts on water resources to providing emissions credits for project financing, we deliver integrated solutions.

Our experts in carbon offsetting, corporate responsibility, sustainable infrastructure and natural resource management can help throughout your project or business. We have the skills to appraise and deliver solutions in agriculture and rural development, biodiversity and conservation, coastal zones, flood defence and land drainage, human health and social development, landscape, water resources planning, carbon credit project finances, energy efficient buildings and natural disaster protection.

In the coastal zone of Bangladesh, we are managing an integrated programme of works to help local communities adapt to climate change, such as better involvement of local organisations in the maintenance of flood embankments.



We can reach rational conclusions that stand up to regulatory and public scrutiny

Rising to 4000 m, and extending through Kazakhstan, Kyrgyzstan and Uzbekistan the Tien Shan mountains contain an enormous diversity of habitats and species. Mott MacDonald has assisted these three countries in developing sustainable approaches to preserving the biodiversity of the region.

Plans for a new crossing of the River Yare in eastern England require thorough environmental assessment. Our marine team carried out a detailed ecological survey of the potential routes.



Our natural heritage

The acceleration of development across our world leads us increasingly to value our natural environment and recognise the pressures we subject it to. Mott MacDonald strongly believes that conserving the environment and its resources should be based on a thorough understanding of its individual aspects and how they interact. We employ specialist teams of freshwater, marine and terrestrial ecologists, landscape architects and experts in water, soil and air quality to help identify the threats to the sustainability our environment.

A theme of recent legislation such as the EU Habitats and Birds Directives is assessing the sensitivity of ecosystems to man's activities, for example the impact of treated wastewater discharges on wetlands. Mott MacDonald has pioneered the integration of diverse disciplines, such as aquatic ecology, hydrology and wastewater engineering so that we can reach rational conclusions that stand up to regulatory and public scrutiny.



The social dimension requires the same level of concern as the physical project design



We've provided specialist design and technical support teams to help Mali's government with its country-wide irrigation and infrastructure improvement programme, notably the Alatona Irrigation Project. The programme has been set up with Millennium Challenge Corporation funding to help meet the internationally agreed Millennium Development Goals on poverty alleviation and water availability.

Communities in the Kalimantan region of Indonesia rely largely on the rich natural resources of the local peat swamps. Mott MacDonald has been providing advice to the local authorities and communities on how to ensure sustainable use of these resources.

People and development

We've developed guidelines for sustainable ground water resource management in semi-arid north east Brazil, empowering local farmers in the active management of water.

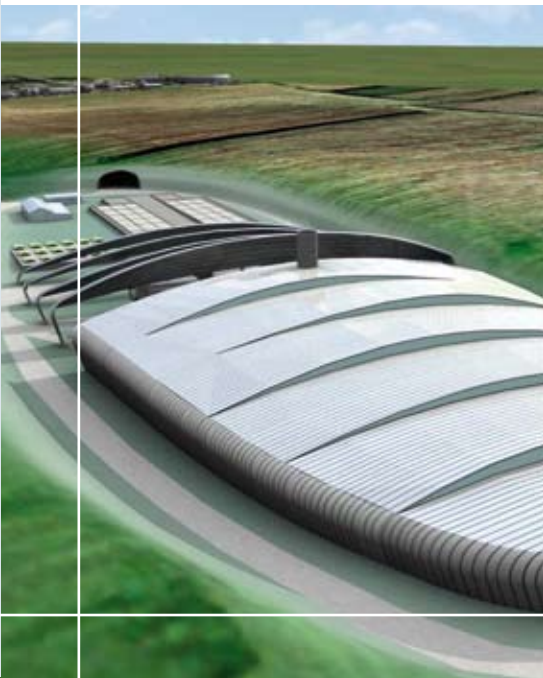
Major projects are appraised in terms of their financial costs, the benefits they are designed to achieve and their environmental impacts. Their social impacts are often difficult to measure and sometimes receive less attention. At Mott MacDonald, we believe that the social dimension requires the same level of concern as the physical project design and should be recognised from the outset.

Whether the project in hand is an urban brownfield development or an irrigation initiative, our experts in public consultation, social development and socio-economics help you identify and communicate with stakeholders and provide practical solutions that meet their needs and provide benefits at both the corporate and project levels.

Our team has wide experience in awareness campaigns, public enquiries, workshops, exhibitions, door-to-door consultation, participatory planning, media relations and lobbying. In developing countries, we also team up with voluntary agencies and NGOs to encourage local communities' involvement. We have extensive knowledge of the use of GIS solutions to map out the various social groups and their needs including access to essential services.



Planning and assessment



Artists' impressions and computer generated images and visualisations are extensively used to help with communication to stakeholders and as part of the public consultation process.

In all developments, the interface between planning and environmental issues is a critical factor. Promoters of new developments need to assess their environmental impact – on soil, water and protected animal and plant species and their habitats. Increasingly these proposed developments take place on brownfield sites bringing with them their own issues of land and groundwater contamination and the removal of invasive species.

Our teams of town planners and environmental specialists support decision makers with policy formulation, strategic appraisal and planning applications. We consult with the authorities and other stakeholders at all levels to prepare development briefs and environmental statements.

Mott MacDonald believes that mitigation and environmental enhancement should be considered as an integral part of a project's concept and not as a superficial add-on. Thus discussions with the planners of a new city bypass will focus on opportunities for the restoration of damaged landscape and the expansion of habitats that may arise from selecting one route rather than another. Extensive use of GIS skills underpin our analysis of environmental and other issues.

We see the planning and construction stages as inevitably linked by the need to implement mitigation actions and manage environmental risks. We therefore build the actions into construction plans and include the risks in project risk registers. Our construction environmental management plans are practical documents designed for day-to-day use by site workers, and can be used as the basis for operational management plans.

The route for the Highways Agency's 6.5 km Hindhead Improvement on the A3 London-Portsmouth highway includes 1.8 km of tunnel under a Site of Special Scientific Interest and required extensive consultation and negotiation with stakeholders and community groups. Our environmental experts carried out the EIA of the whole scheme, including the tunnelled section, as part of our extensive role on the project.





The expertise of our staff is recognised and valued by our clients world-wide

The corporate environment



As part of ScottishPower's corporate social responsibility programme, we carried out data verification and auditing at selected power generation sites.

To ensure the sleek, modern design of Cambridge Water Company's new headquarters building was sympathetic to its countryside setting, we designed the landscaping utilising drought tolerant planting in line with the company's policy of water conservation.

Sustainability is no longer just the domain of green organisations and activists. Businesses in today's world are increasingly required to respond to stakeholders at all levels on the sustainability of their operations, from corporate decisions to activities at the coal face. It's on the agendas of policy and decision makers and planners and investors. Companies feel its impact in supply chains, and publicity can make or break corporate reputations.

Mott MacDonald supports its corporate clients at all levels. We guide the development of environmental and sustainability policy, we provide tools for the implementation of practical environmental management systems and we deliver engineering services that reduce the impacts of operations on water, soil and the atmosphere.

The expertise of our staff is recognised and valued by our clients world-wide, who increasingly ask for them by name, whether it is to provide corporate level responses on sustainability to industry regulators or to facilitate step changes in energy efficiency in the corporate engine room.



Under the EU Habitats Directive we carried out one of the most intensive surveys ever conducted in the UK for Southern Water on the impacts of effluent on aquatic ecology.



We developed a sustainable building rating system for Abu Dhabi. The objective of this system is to dramatically improve the sustainability performance of the built environment. This will apply to the design, construction and operation of all building types, and will also be extended to community planning.

Government and regulation

International legislation such as the EU's directives on waste, water and ecosystems, together with national legislation, governs the way environmental regulators, utilities and businesses operate in terms of environmental safety, control and protection. Mott MacDonald has amassed vast experience in assessing compliance with the frameworks, and our close links with environmental lawyers means we can provide all the policy advice you need.

We've assisted governments in drafting laws, such as China's new Water Law and standards such as Abu Dhabi's green building guidelines. We check that technology and environmental management systems not only satisfy current official standards but contribute to setting new standards where appropriate.

Environmental legislation requires expert individuals and effective organisations to implement it. We believe our capacity building and institutional strengthening activities have the potential for making the greatest improvements in our environment in the long term, whether they are establishing and training the institutions in eastern Europe that implement the EU Water Framework Directive or expanding the capacity and effectiveness of the government Water Department in Uganda.



Risks and liability

All investments bring risks, and environmental risks and liabilities, such as weak pollution control, infrastructure or historic contamination, have grown rapidly in recent decades. Mott MacDonald's strengths in its main business sectors – including water, energy, buildings and transportation – give it the specialist knowledge to assess the actual risks and potential liabilities that arise when investing in these sectors.

We have been called on to conduct environmental due diligence of major investment opportunities, such as power distribution networks, water and wastewater companies and power generators. The same expertise in both environmental and engineering sectors means that we have been appointed as lenders' environmental advisor for such major international projects as the Baku-Tbilisi-Ceyhan pipeline.

We have experience of the rapid appraisal of large property and asset portfolios, producing a prioritised register of environmental risks that can be more thoroughly investigated and eliminated over a longer period. As a seamless service we can manage both the engineering and mitigation works needed to reduce risks and liabilities to acceptable levels.



We carried out remediation work on the disused Fengate sewage treatment works so that it could be redeveloped to accommodate up to 600 residential units in Peterborough, eastern England.

Hatch Mott MacDonald completed permit applications, prepared engineering design and provided construction management services to achieve the proper closure of this 50-acre unlined landfill for the Ocean County Board of Chosen Freeholders, New Jersey, USA. This included resolving issues of pollution and odour, and introducing a gas management system in the environmentally sensitive Pinelands National Reserve.



Mott MacDonald – multi-sector, multi-skilled, multi-national

Buildings

Communications

Construction economics

Education

Environment

Energy

Health

Industry

Management consultancy

Planning

Project finance

Project management

Transport

Urban regeneration

Water

For details see www.mottmac.com

