

Unlocking opportunity, responsibly

Environmental and social advice
for growth and development
in emerging economies



Unlocking opportunity, responsibly

A careful balance between aspiration and reality is needed when using international finance to fund the responsible, sustainable growth and development of emerging economies.

Standards matter

International lenders and investors often support projects and programmes in countries where local regulations are not yet rigorous enough to satisfy international funding criteria. Their environmental, social and governance (ESG) requirements are set out in a range of policies, guidance and standards, with those of the International Finance Corporation (IFC) and the Equator Principles being amongst the most commonly used as benchmarks that projects must meet to qualify for funding. They expect projects to do least harm, manage risks and compensate for any damage to ecosystems and/or local communities. Projects that can meet these standards, enhance the environment and improve conditions for those affected are more likely to secure investment, and this can be on more-favourable terms.

We work with lenders and investors, and for developers and contractors working to international ESG requirements, to proactively find solutions for challenging projects so that they meet – and in some cases exceed – these benchmarks while being technically possible. Our environmental and social specialists bring a wealth of experience, often working closely with engineers, to challenge expectations, identify risks and improve outcomes, but always with a keen awareness of the bottom line. The practical, balanced and robust view we provide reflects our understanding of our clients' needs and provides confidence that international funding requirements and/or developers' own ESG policies and standards will be met.

Setting the right expectations

Infrastructure should now respect and reflect a site's natural, aesthetic, heritage and community value: and at a time when desirability versus affordability is a hotter topic than ever before, this balancing act requires:

- Local knowledge and contextual sensitivity
- A firm grasp on the economic and technical dimensions of infrastructure
- The ability to connect and communicate strongly with communities that will use the infrastructure long term

Effective engagement helps target issues of greatest local importance, enables the most to be made of available capital and helps constraints to be explained, mitigating disappointment and opposition.

Working with emerging economies also requires a strong understanding of the practicalities that exist when it comes to applying international ESG requirements in a way that's locally appropriate. This allows international funding requirements to be balanced with a pragmatic awareness of what can actually be achieved.



Measuring the intangible benefits

Whatever the project, there will always be 'sensitive receptors'. Those might not always be people – they may be species, habitats or natural systems – but, directly or indirectly, it's people who react to impacts. Negative impacts are increasingly costed into projects. But what of potential positive impacts? By looking for the opportunities early enough in project development, it's possible to go beyond mitigation and deliver benefits at little or no additional cost. What's the value of better access to water, reduced risk of respiratory illness, improved access to commerce, education and health, or a landscape enhanced?

Reducing risk, improving certainty

Fail to address local resident/stakeholder concerns, consider construction impacts, or overlook a process, and your project can fail to get approval or secure funding. Despite these risks, an astonishing number of projects don't manage them effectively and get stuck, with contractors' costs racking up and drawdown from investors being delayed. Conflict with communities and delays that impact on commercial performance can do significant reputational damage to a project and its backers. But paying close attention to the detail can accelerate progress and enhance reputation and brand.

Standing by promises, safeguarding self-interest

At the very least to uphold reputation, and at best to gain commercial benefit, it's important that agreed environmental and social measures are followed through and maintained over the life of the project. Major schemes in emerging economies often attract the attention of non-governmental organisations (NGO), which makes balancing added value with positive results and stakeholder engagement particularly important. NGOs should not be seen simply as opposition groups. They often have access to valuable information, and building relationships with them can assist projects.

Those running delivered assets are in relationships with the communities they recruit from, those who supply the services they rely on, and those who they sell goods or services to. Effective environmental and social management is about creating, preserving and enhancing those relationships, upon which commercial continuity and success depend.



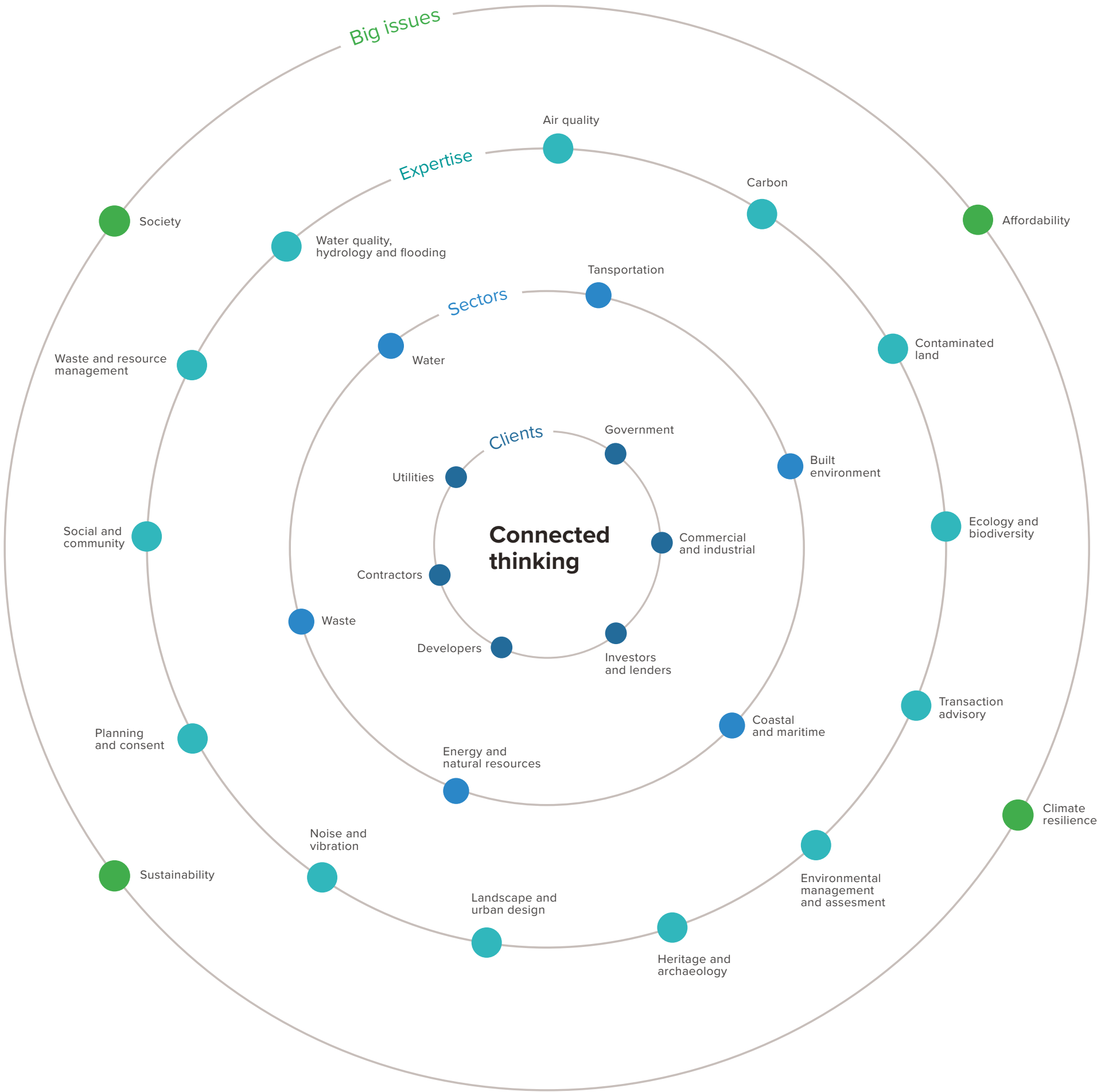
Realistic idealism – centred around you

Why do we try to get the best for
environments and communities?
Because it matters.

We believe that business needs can be met without compromising the environments and communities in which they're set. We want to hand on a world that is richly diverse, productive and liveable to tomorrow's generation, and the generations that come after that. We're optimists and idealists.

And we're practical people who thrive on solving problems and coming up with better ways of doing things.

Whatever your objectives, needs, constraints and opportunities, we'll mobilise the right combination of skills and experience for your project.



The best of both worlds

Project
Lekki Port
Location
Nigeria
Client
Lekki Port LFTZ Enterprise
Expertise
Environmental and social management



Opportunity

A shortfall in container capacity at Lagos – Nigeria’s business capital – is expected to grow to 5.5M TEU by 2025. Expansion constraints at Lagos, and Nigeria’s other ports, prompted the decision to build a new deep-sea port at Lekki. This is planned to be a hub for this region of west Africa and a boost to economic development around Lekki and across Lagos State. It will provide thousands of jobs and an annual capacity of 2.7M TEU. Lekki Port will be the single largest private investment in Nigeria’s infrastructure, with financing being provided by several IFIs. These bodies have rigorous standards for environmental and social governance, so the project sponsor appointed us to produce a comprehensive environmental and social management plan (ESMP) to help secure the massive investment needed and ensure the project is delivered responsibly.

Solution

Our environmental and social experts have extensive experience of working for both sponsors and lenders, and a full understanding of the complex governance processes for international investment deals. This was a great help in enabling us to build a constructive relationship with the lenders’ advisor – rather than the adversarial one that can often develop – and brought real benefits to the ESMP process. Collaborative workshops allowed us to negotiate a management plan with the lenders’ advisor that would enable management of environmental and social risks within project constraints. A wide range of risks were covered, including those of particular concern to the lenders – dredging management, turtle nesting sites along the west African coast and community development.

Outcome

By working with the project sponsor, contractor, lenders and lenders’ advisor, we’ve reconciled multiple concerns and delivered an ESMP that’s acceptable to all parties. We’ve developed practical, monitorable processes and tools that will help our client and their contractor to build the project to the investors’ high standards. We’ve also identified the people our client will need, the training they’ll require and the institutional structures necessary to deliver and demonstrate compliance throughout the investment period. Plans cover dredging methods that meet the lenders’ environmental standards while offering the contractor flexibility to select an appropriate solution when construction begins. Measures have also been proposed to avoid hampering reproductive success for turtle populations. Our community development plan maps out social risks and opportunities, covering issues as diverse as access to labour, human rights and pedestrian safety. It also offers practical suggestions for engaging with local communities that respect their political traditions while helping them to benefit from the project.

Safeguarding a vulnerable community

Opportunity

The Hawizeh Marsh in southern Iraq is a Ramsar wetland of international importance and home to the Marsh Arabs. The marsh was systematically drained as part of a campaign of persecution against its inhabitants, and subject to sporadic management. This resulted in the drying of the marshland, dwindling biodiversity and the displacement and impoverishment of the Marsh Arabs. The nearby Majnoon oilfield must meet the challenge of producing valuable energy resources without harming the marsh and its ancient but vulnerable community. Shell appointed us to produce a BAP to meet this challenge.

Solution

Our BAP reflects International Finance Corporation standards and International Petroleum Industry Environmental Conservation Association guidelines. But we took these further by carrying out critical habitat assessments, developing sensitivity mapping and analysing ecosystem services to understand the relationships between the Hawizeh Marsh and the Marsh Arabs. Shell needed to understand how the oilfield could be developed responsibly, in line with international best practice, so we grouped actions according to a mitigation hierarchy – avoid, reduce, remedy, offset – and matched them to different project phases. We produced five BAP sub-plans. Each sub-plan has its own objectives, each with several actions – 85 in all. Each action has a defined target and indicator. We specified when, how and by whom each action should be implemented.



Outcome

The BAP assisted in defining a scope of works that enabled Shell to demonstrate the Majnoon oilfield can be developed without adversely affecting local biodiversity and marsh habitats, and the way people use the marshes. It also contributed towards securing a social licence to operate in an area where oil companies have faced strong local opposition. Local communities will benefit from the preservation of their environment and the ecosystems they depend on. BAP preparation was informed by engaging with local people. Understanding how they use the marshes meant the most valued areas could be prioritised for conservation.



Project
Majnoon Biodiversity Action Plan (BAP)
Location
Iraq
Client
Shell
Expertise
Biodiversity, hydrology and livelihoods surveys, ecosystem services review, and stakeholder identification and consultation

Water ways



Project
Water for Growth Rwanda

Location
Rwanda

Client
Embassy of the Kingdom of the Netherlands

Expertise
Integrated water resources management (IWRM)

Opportunity
Rwanda’s natural resources are under increasing pressure due to population growth, urbanisation and economic development. Climate change is also having a negative impact, increasing flooding, droughts and soil erosion. Agriculture, mainly rain-fed, employs over 80% of Rwanda’s people, and the aim is to increase land area under irrigation. Robust management is needed to balance the competing needs of different consumers and keep water use sustainable. A joint Rwanda-Netherlands IWRM programme – Water for Growth Rwanda – was launched in 2015 and is being implemented by the IWRM Support Unit (ISU), in close collaboration with the WRM Department of the Rwanda Water and Forestry Authority.

Solution
As team partners in the ISU, we’ve helped to create an enabling environment for catchment planning and IWRM by strengthening the organisational capacity of key players, advising on policies and legal frameworks, building links between key agencies and organisations, and clarifying roles and responsibilities. At district and national level, we’re assessing capability needs and delivering staff capacity-building activities, including on-the-job training, coaching and exchange programmes. WRM Department and district staff have been given training in water balance/allocation modelling and water productivity assessment.

Outcome
IWRM solutions are being rolled out in four demonstration catchment areas. Catchment plans have been developed and committees established for all four areas to promote the IWRM approach. Studies have been carried out on issues such as multipurpose use of reservoirs, bilharzia prevalence, dam construction, flood management and rainwater harvesting, to support evidence-based interventions. Projects covering erosion control, soil conservation, land husbandry, landscape rehabilitation, flood protection, riverbank protection, water supply system optimisation and payment for ecosystem schemes are being planned in line with IWRM principles. This will enable sustainable socio-economic development and equitably improved livelihoods for the people of Rwanda.

Full steam ahead



Project
Ulubelu Unit 3 and 4 geothermal energy plants

Location
Indonesia

Client
Pertamina Geothermal Energy (PGE)

Expertise
Environmental and social impact assessment

Opportunity
Renewables have an important role in Indonesia’s energy mix, and a key part is being played by natural geothermal resources in volcanic areas. Geothermal energy generation does not emit the same pollutants as a thermal power plant as no combustion takes place. But condensing steam can result in the release of gases such as hydrogen sulphide (H₂S). H₂S has an unpleasant sulphurous odour at low concentrations and can be fatal at very high concentrations. World Bank-funding for a geothermal project at Ulubelu, on the island of Sumatra, could only be secured if potential H₂S impacts were mitigated to meet rigorous environmental, health and safety standards. We were appointed to carry out the crucial environmental and social impact assessment (ESIA).

Solution
Dispersion modelling established that abatement technology could be required to prevent impacts associated with H₂S. This was partly due to a nearby but unrelated geothermal plant, operated by another energy company, which was raising local H₂S levels. Additional modelling enabled development of a proportional management plan to deal with this situation. Further geothermal exploration resulted in plant design changes and the need for supplemental ESIA’s. These established that operational H₂S impacts were now not likely to be significant. The original requirement for abatement was replaced with a requirement for the plant to be made abatement ready so that abatement technology could be easily retrofitted if required.

Outcome
Removing the immediate need for H₂S abatement technology provided substantial cost savings for our client. Units 3 and 4 were completed in June 2017 and are now providing 110MW of geothermal power generation. A H₂S monitoring programme started prior to construction at Ulubelu is still in place. This provides valuable information on ambient air quality and will alert PGE to any potentially dangerous H₂S concentrations, allowing staff to implement emergency response plans where necessary to protect local communities.

Protection where it's needed most

Project
Training for the National Environmental Protection Agency (NEPA)

Location
Afghanistan

Client
UK Department for International Development (DFID)

Expertise
Environmental impact assessment, management and permitting



Opportunity
DFID’s provincial reconstruction team was working in Helmand Province to help rebuild a society shattered by decades of conflict. This included helping to restore local government, implementing engineering projects and training for environmental protection. In an area devastated by violence, environmental protection might not be considered a priority. But Helmand is one of the most environmentally important parts of Afghanistan. The Helmand Basin has remained the ‘market garden’ of Afghanistan and the Helmand River runs across the country. Protecting these natural assets from pollution is vital to reconstruction. Rebuilding local infrastructure is also key to recovery, but it’s equally important to minimise any environmental impacts this could have. NEPA was established in Afghanistan in the 1990s, but existing environmental legislation was very difficult to apply in an area where governance and education had been severely diminished. DFID brought us in to provide much-needed training.

Solution
We first determined existing local knowledge of environmental management and protection to establish a starting point for training. This process revealed that the determined local NEPA team was passionate about its work – carried out despite the very-real threat of death – but it needed guidance about how to practically implement environmental protection. Members of the NEPA team were chosen to receive training in environmental impact assessment, management and permitting covering areas such as natural assets, building and sanitation. The perilous security situation meant that the training workshops had to be held at an International Security Assistance Force army base.

Outcome
The training we delivered for Helmand’s NEPA staff provided them with the tools to apply important practical protection measures. After the course, we went to the provincial government palace to give a talk about our work. This was covered by Afghan television to publicise the importance of environmental protection to the wider population. While we’ve since had to withdraw from Afghanistan, we know that the NEPA staff we trained have gone on to deliver their own training workshops for their colleagues.

Sound foundations

Project
Kampala Northern Bypass

Location
Uganda

Client
National Roads Authority

Expertise
Environmental Statement
peer review



Opportunity
Severe congestion in Kampala city centre was hampering movement of goods and traffic across the Ugandan capital and badly affecting air quality for many of the city’s 1.5M residents. This prompted construction of the Northern Bypass, which opened in 2009. While this helped reduce congestion, traffic in Kampala continued to grow by 7% each year. In 2012, the decision was taken to widen the 22km bypass to a dual carriageway. A local consultancy was selected to deliver an Environmental Statement (ES) for the widening scheme and, as part of our project design engineer role, we provided peer review services. We found that the ES needed work to reach acceptable international standards, especially as much of the project’s funding was coming from the European Union and the European Investment Bank.

Solution
While the surveys for the ES had been diligently carried out, much of the work had been done as a ‘tick-box’ exercise and the information was not effectively presented. This made it difficult to identify the main issues and their significant effects, particularly when it came to noise impacts. The bypass runs through Kampala’s northern suburbs close to homes and schools, but very little had been done to mitigate the increase in noise levels that extra traffic using the widened bypass would create. We worked with the local consultant to focus on noise impacts and present conclusions that proposed meaningful mitigation measures.

Outcome
We took noise modelling work carried out by the local consultant – but not effectively used in the ES – and did further work with it to identify noise ‘hot-spots’ along the bypass route. This enabled us to bring tangible benefits to the ES process by recommending where low-noise road surfacing and acoustic fencing could be best built into the design to reduce noise impacts on those living and learning nearby. An additional benefit was the transfer of our skills and knowledge to the local consultant, who came to appreciate how a more methodical and structured approach could produce a far more effective and beneficial ES.

Take it to the bank



Project
Karot hydropower project

Location
Pakistan

Client
Karot Power Company

Expertise
Environmental and social
impact assessment

Opportunity
This 700MW run-of-river hydropower scheme on the Jhelum River includes a 95m high dam, surface power house, spillway, transmission equipment, new bridges and roads, and several associated safety and control features. To reach financial close, our client needed an environmental and social impact assessment (ESIA) within a challenging timeframe to meet International Finance Corporation (IFC) performance standards.

Solution
We mobilised a multidisciplinary team with previous experience in the region and of developing ESIAs for large hydropower projects. They worked closely with the IFC. We ensured that stakeholder concerns were addressed in the ESIA and that their requirements were met. We undertook a gap analysis of documentation against IFC standards to check key issues were addressed – such as public consultations, resettlement and data on plant and animal life. A major focus was creating mitigation measures that were practical and could be easily translated into contract documents.

Outcome
The duration of an international ESIA for similar projects is typically 12 to 18 months. For this project, our team completed the ESIA and a full suite of supplementary documents in just six months to facilitate financial close. The documents identified key environmental and social risks, and provided practical measures to help the project’s managers adopt environmentally and socially responsible practices.

Secure roots for the future

Project
Blue Gold
Location
Bangladesh
Client
Bangladesh Water Development Board and Bangladesh Department of Agricultural Extension
Expertise
Technical advisory services



Khalid Hossain Ayon and Anis Pervez

“From just 10 birds, I sold 110 hens, 1200 eggs and 300 chicks. I can now afford my son’s college fees and support my five family members.”

Dipali Mondal, housewife, mother and chicken farmer



Khalid Hossain Ayon

Opportunity

Almost 40% of people in Bangladesh’s southwestern coastal region live below the poverty line and face food and water insecurity. Their hardship is made worse by cyclones, storm surges, salt water contamination of land and drinking water, droughts, river siltation and land erosion. Managing the country’s abundant water resources and fragile land are crucial to long-term development.

Solution

The Blue Gold programme covers an area of 115,000ha and aims to reduce poverty and make the area safer for local people by strengthening dykes and clearing silt from drainage channels. We avoided the top-down approach of similar development projects by creating water management organisations (WMOs) to represent communities and agree priorities. Currently, 350 WMOs – each consisting of about 250 households – are being developed and equipped with the technical, communication and project management skills needed to give local people control over the water resources affecting their lives. These are complemented by Farmer Field Schools, which equip people with training in horticulture, aquaculture and livestock rearing.

Outcome

Women make up at least 30% of the membership of WMOs, increasing their local prominence and making progress towards the Sustainable Development Goal that calls on countries to promote gender equality and empower women. New skills have improved the quality and diversity of produce, and the project has fostered strong links between villagers and the private sector. But Blue Gold’s greatest legacy will be the self-sufficiency of the area once the programme closes. By 2020, all technical assistance and external financial support will be withdrawn, with the villagers empowered to sustain their own positive results.

Victory for Victoria

Project
Lake Victoria Water and Sanitation (LVWATSAV) Mwanza

Location
Tanzania

Client
European Investment Bank (EIB)

Expertise
Environmental and social impact assessment, project and financial management, technical support and capacity building

Opportunity
Lake Victoria – the world’s second largest freshwater lake – supports the livelihoods of over 30M people, yet more than half of them live below the poverty line. The rapid and unplanned growth of nearby urban centres is adversely affecting local living conditions, basic infrastructure and the lake’s fragile ecosystem. In response, LVWATSAN is working with participating governments to achieve Sustainable Development Goals for water supply and sanitation in the city of Mwanza, the towns of Musoma and Bukoba, and three satellite communities. The EIB is financing this project and appointed us to support delivery of the investment programme. This will improve sewerage, sanitation and wastewater treatment, enhance living conditions and reduce lake pollution.

Solution
We’re providing sustainable knowledge transfer in environmental and social best practice and project and financial management to the implementing agencies, local stakeholders and the project promoter – the Mwanza Urban Water Supply and Sanitation Authority, and Tanzania’s Ministry of Water and Irrigation. We’re also developing a common monitoring framework to track progress and impact, including a joint implementation programme to assess how each activity contributes to overall success. Building relationships with all programme stakeholders has improved communication, and collaborating with the promoter has enabled us to challenge ways of working when required.

Outcome
Building the promoter’s abilities will deliver long-term benefits in water supply, sanitation and hygiene. This will be further reinforced by improved understanding of the importance of environmental and social safeguards in infrastructure delivery. Up to 500,000 people will benefit from the project’s immediate completion. Even more will gain from increased access to sanitation and water supply services as Tanzania’s population continues to grow. Better health and wellbeing will enable more people to attend school and work, and improved water quality in Lake Victoria will boost fishing and tourism.



Not a waste



Project
Colombia sustainable waste management

Location
Colombia

Client
UK Foreign & Commonwealth Office (FCO)

Expertise
Technical advisory waste management

Opportunity
Guapi and Nuquí are isolated municipalities on Colombia’s Pacific coast with very limited to non-existent waste collection infrastructure, landfill capacity and recycling facilities. Waste is mostly disposed of in streets, canals and the Pacific Ocean, causing significant public health and environmental hazards. The FCO commissioned us to provide technical advisory services that would address the urgent need for waste management solutions in Guapi and Nuquí and create a toolkit that could be used by other municipalities in Colombia facing similar issues.

Solution
Introducing sustainable solutions involved identifying safe disposal options, developing recycling activities and considering the views of local waste management stakeholders. We established a baseline on local aspects of waste management, including current operations and practices and environmental conditions at illegal disposal sites. Our feasibility study then identified options for organised waste collection, resource recovery, treatment solutions and residual waste disposal. We produced a cost model for each option, which aided Colombia’s Ministry of Housing, Cities & Territories to understand the feasibility and financial viability of different solutions. A guide and cost assessment toolkit we developed was shared by the ministry with Colombia’s key waste management institutions.

Outcome
Project outcomes were presented at a workshop held at the Ministry of Housing, Cities & Territories in Colombia’s capital, Bogota, and attended by the Minister of Housing and the British Ambassador. Introducing sustainable waste management systems in Guapi and Nuquí will improve public health, safeguard the local environment and boost economic prosperity for local communities.

Breathe easy

Opportunity

Air pollution causes 10% of deaths in the Mongolian capital, Ulaanbaatar, each year. Around 170,000 of the city’s poorest and most vulnerable families live in small houses heated by stoves that are fuelled by coal, wood or even waste such as car tyres. The use of raw coal in these stoves, combined with dust from the desert and unpaved roads, makes up 80% of particulate matter. To meet Mongolia’s own air quality standards, particulate levels must be reduced by 94%. But turning off the heat is not an option. Ulaanbaatar is one of the coldest cities in the world: mid-winter daytime temperatures can reach -30°C.

Solution

The Mongolian government set up a Clean Air Fund to manage the financing of air pollution reduction measures. We advised on the institutional framework for the fund – including budget, organisation and operating procedures – and we trained staff in testing fuels, measuring emissions and implementing enforcement procedures. Affordability was a vital consideration, so we reviewed the pricing of more-efficient stoves and cleaner-burning fuels, and made recommendations about the subsidies required for wide-scale uptake.

Outcome

Government subsidies of up to 75% have made the stoves truly accessible: more than 100,000 have been distributed across Ulaanbaatar. This is a terrific step forward as reducing air pollution to target levels could annually save 1000 lives and reduce hospital admissions for cardiovascular and respiratory illnesses by 4000. And our work in making subsidy programmes cost effective shaved US\$1M from government spending without reducing its reach.

Project

Ulaanbaatar clean air initiative

Location

Mongolia

Client

Ministry of Environment & Green Development/European Bank for Reconstruction & Development

Expertise

Environmental, economic, legal and technical analysis and advice



A fair share for all



Project
Colombo bulk water supply

Location
Sri Lanka

Client
World Bank/International
Finance Corporation (IFC)

Opportunity
Rapid urban expansion and a resulting increase in projected water demand across western Sri Lankan means a new water treatment facility, with raw water intake and storage for treated water, is needed for the capital city of Colombo. Sri Lanka’s National Water Development and Supply Board (NWDSB) – which provides water to more than 80% of the country’s population – plans to implement the project as a PPP, and invited the IFC to provide transaction advisory services. The IFC appointed us as technical consultant to carry out an environmental and social scoping study.

Solution
The key issues we identified were the cumulative impacts of water abstraction on existing water users and on environmental flow requirements to support ecological, hydrological, livelihood and cultural needs. Water for the new treatment works will be drawn from the Kelani River, which already provides 80% of the water used in Colombo. In addition to the 5.6M residents of the city’s metropolitan area, the Kelani is a key resource for farmers, fisheries and hydroelectric power generation. It’s also closely connected with the Sinhala Buddhist culture of Sri Lanka through its association with two highly venerated shrines.

Outcome
To ensure these issues are managed in accordance with IFC requirements, we developed environmental and social impact assessment (ESIA) terms of reference to IFC performance standards. These will form part of the responsibilities for partners selected for the PPP transaction, and provide a strong base from which to deliver a robust ESIA that will help best serve the needs of all those who rely on the Kelani River. When the new treatment facility is completed it will provide an extra 180M litres of water per day and help towards the NWDSB’s goal of providing pipe-borne water supply coverage to 50% of Sri Lanka’s population by 2020.

Opening opportunities with connected thinking.

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