



TECHNICAL ASSISTANCE FOR INFRASTRUCTURE: CHALLENGES AND OPPORTUNITIES

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September 2017



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In September 2015, the United Nations member countries adopted 17 ambitious Sustainable Development Goals (SDGs) to be achieved by 2030 to end poverty, protect the planet, and ensure prosperity.

SDG 9 recognises the crucial role played by resilient infrastructure, such as roads and electrical power, in countries' development.

Bilateral and multilateral organisations fund programmes that support the construction of critical infrastructure in developing countries. However, apart from inadequate funds, another cause of inadequate infrastructure delivery is the skills gap in public institutions, which are often unable to plan, procure and finance sustainable services. The lack of a national and regional enabling environment can lead to inefficiencies in state-funded infrastructure and discourage private financing.

To address this situation, development partners provide technical assistance (TA). Unlike direct financial aid, TA aims to develop recipient countries' institutions and help them reform legal and regulatory frameworks in ways that make a sustainable difference far beyond one individual project.

IMC Worldwide's long experience of implementing donor-funded infrastructure TA programmes has provided us with the opportunity to reflect on the factors that should be considered to achieve long-term, sustainable impact.

Combining technical and financial assistance

Technical assistance programmes can be more effective when combined with direct budgetary support to the recipient government. The UK Department for International Development (DFID), as a grant-aided organisation, rarely funds major infrastructure projects, except through its Private Sector Department.

However, DFID transfers resources to multilateral banks that lend money for commercially viable infrastructure. Often, the conditionality for this lending involves institutional reform studies, several of which IMC has carried out. Typically, the host government accepts the conditionality but does not support institutional change.

More recent DFID infrastructure projects rely on the TA consultant to leverage capital funding either through other donors or a combination of private finance and government guarantees. Sometimes this is unrealistic and should have been incorporated in the project design.

In general, however, supporting physical interventions with financial resources strengthens the position of the consultant vis-à-vis recipient governments. Moreover, when objectives are aligned, this can overcome their potential resistance to institutional change.

Between 2011 and 2015, IMC implemented the DFID and EU-funded CrossRoads programme in Uganda. Its aim was to develop a more competitive and sustainable road industry, improve the quality of the country's road network and the efficiency of government spending by influencing management policies in this sector.

The availability of a USD 9 million fund built into the programme allowed CrossRoads to go further than just recommending interventions to increase the private sector's ability to provide road maintenance and construction services.

CrossRoads was also able to improve the government's procurement and management processes.

Another example from the same programme is the USD 3 million Construction Guarantee Fund (CGF). IMC established the CGF in 2012 to build trust between financing institutions and local contractors and consultants and make it easier for them to access finance.

When tendering for road rehabilitation, maintenance, design and supervision work from the Uganda National Roads Authority and other government institutions, companies usually need to provide a performance guarantee. It generally amounts to 10% of the contract sum. This can be claimed by the client if the contractor performs poorly or breaks his contract.

As banks are reluctant to provide a guarantee for small and medium-sized companies, contractors have to provide collateral for the amount of the guarantee. This discourages local firms from bidding for contracts, to the benefit of larger state and foreign companies.

In case of contractors' poor performance, the CGF underwrites a percentage, currently 50%, of any guarantee claimed by the employer. This encourages banks to provide performance bond guarantees and, ultimately, leads them to finance the national road sector. Meanwhile, contractors no longer have to use all of their own funds to secure a guarantee, which improves their cash flow.

The CGF, which was the first-of-its kind in the region, is still operational and fully embedded as a trusted Ugandan facility. It has increased competition, profitability and cost effectiveness in the country's road sector. CrossRoads also supported finance leases, which allowed contractors to acquire expensive equipment without having to take out loans.

Additionally, DFID sanctioned a USD 1.5 million Challenge Fund within CrossRoads to encourage research into new, cheaper and effective solutions. This ranged from testing alternative building materials to creating an evidence base for more labour-intensive road work contracts and increased employment opportunities for women.

The Challenge Fund provided entrepreneurs with the financial support to develop, test and market their innovative ideas. This way, the programme tackled the reluctance of banks and government agencies to shoulder the risk of investing in new business ventures.



CrossRoads Programme, Uganda

It also increased the efficiency and sustainability of Uganda's road sector while giving better value for government's investments.

An alternative to unilateral funding is joint funding between the development partner and the recipient government.

Since 1999, within the DFID-funded Rural Access Programme (RAP), IMC has built and improved over 1,000 kilometres of labour-based rural roads that connect Nepal's communities to services such as market, healthcare and education.

To date, RAP has generated more than 18 million employment days for Nepal's poorest people. To build roads, RAP employs people drawn from the communities living along the road alignments and women must represent at least 33% of the workforce. Road maintenance groups, drawn again from the most disadvantaged households, operate throughout the year to prevent and repair damage caused by the monsoons.

Meanwhile, RAP has been building the capacity of the Ministry of Federal Affairs and Local Development and the Department of Local Infrastructure Development and Agricultural Roads.

The programme is helping them to design a rural transport infrastructure sector-wide approach. This will be achieved through the adoption of a single national government-led policy and the promotion of the harmonisation of donor and government of Nepal's (GoN) activities.



CrossRoads Programme, Uganda

The programme is also providing assistance to district level institutions and private sector actors that are involved in roads projects implementation to improve their capacity and performance. These include consultants, contractors, road building groups and road maintenance groups.

DFID covers the cost of providing technical assistance and shares the cost for road maintenance and construction with GoN. This is evidence of Nepal's strong commitment and the alignment of priorities between the donor and the recipient government, which is a crucial factor when designing a TA programme. This also maximises the value for money that DFID is investing in the country.

Time horizons and contextual knowledge

To achieve sustainable and lasting impact, TA programmes, which are in most cases geared towards government and public organisations, need to encourage changes in the way these institutions operate. However, institutional change takes time as does building trust between the TA implementer and the recipient government. Often, progress starts to be recorded after a few years, just when programmes end.

Donors could add a few more years to their envisaged programme duration in their internal planning processes.

Additional time would enable achievement of objectives that are on track but still not quite there. It would also help to better monitor programmes' earlier outputs and determine how they contribute towards outcomes.

This can provide important lesson learning for the design of future programmes. IMC's experience with RAP in Nepal clearly shows the benefits of the programme's long duration as some of its best value interventions are coming fifteen or sixteen years after initial project design.

Exit strategies should include mechanisms to ensure that recipient governments will achieve the target defined in the TA even after the programme is completed. Implementing successor programmes or setting up monitoring systems would ensure that achievements are consolidated.

This is also why the alignment of donor aims and objectives with those of the host organisation is crucial at all levels and in the short, medium and longer term.

Donors also need to support the work of the consultant by engaging with host governments on priorities and policy direction, both during and after project implementation. The time between the first meeting with stakeholders and the project's inception can be more than a year. During this period, staff changes in the recipient government and the donor may have taken place. In the best-case scenario, new government officials are not aware of the project and need time to become familiar with it. In the worst-case scenario, they are averse to it and not cooperative. This might result in TA implementers finding themselves between a donor and a recipient government with different views and expectations.

A thorough understanding of the complex cultural, social, economic and political dynamics is essential to identify the factors that need to be harnessed to make a project successful. At the design stage, donors must map relevant stakeholders and engage with them until the consultant mobilises.

While this then becomes responsibility of the latter, donors must remain engaged with stakeholders throughout project delivery, at least at the higher levels, to ensure continued commitment to the programme's direction and outputs.

Another important consideration for successful design of infrastructure technical assistance programmes is to incorporate lesson learning from the region and other relevant countries. Individually, technical assistance consultants and indeed international staff from donor's organisations on short-term postings may have limited experience in the target country.

Donor organisations, through their network of country offices, are the best-placed actors to provide such understanding and to capture and share lessons, which could be applied to future programming. This particularly applies to large and/or complex programmes whose scale has never been tried before. Donors should facilitate lesson learning by providing better access to their offices and knowledge databases.

Managing change effectively

The possibility for contextual change needs to be taken into account when designing a project. This is particularly relevant with donors' increased focus on investing in fragile and conflict-affected states (FCAS) and the very real threat of climate change and natural disasters.

As some changes cannot be predicted at the programme design stage, building in the programmes the capacity to rapidly adapt is essential to deliver bigger, more sustainable and context-driven development impacts. This involves testing, trialling, learning, and redesigning during project implementation, by scaling up what is working and redesigning or discontinuing what is not.

A good example of a project designed from the outset to be adaptive is the Accelerating Private and Public Investments in Infrastructure Component (APPIIC) of the DFID-funded Accelerating Investment in Infrastructure in Nepal (AiIN) programme.

APPIIC aims to accelerate public and private investments in large-scale infrastructure across transport, hydropower, and various industrial sectors, which are of strategic importance to economic growth, job creation, and poverty reduction.



IMC is helping the government of Nepal to create an enabling environment and supporting the capacity development of its public institutions so they can facilitate and manage the delivery of these projects.

IMC worked with DFID in the early stages of APPIIC to fine-tune an adaptive management approach. This includes understanding the interests and incentives driving key decision-makers and other influencing actors and using this understanding to remove constraints and promote critical reforms.

The APPIIC logic is focused on responding to evolving client needs (Investment Board of Nepal, line ministries and other government agencies). The team has been identifying which reforms, bottlenecks or policy areas it can support (based on political feasibility, institutional readiness, available resources, timing, etc.) that have a reasonable probability of success within an unpredictable environment. Appropriate stakeholder management and risk management approaches underlie APPIIC's achievements.

The APPIIC work plan is dynamic and can be scaled up and down in response to the demands of each project component. It will continue to be adapted as the team builds working relationships with the various stakeholders, gains a deeper understanding of the problems and adjusts programme strategies as insights emerge.

Because of the nature of the programme, IMC's core team is small with only six full-time technical members of staff (three international and three national). In addition to the core team, IMC can rely on an Advisory Panel consisting of national and international specialists, as the needs arise, which is designed to give us access to high-quality advice in a flexible and responsive manner.

The inputs of the Advisory Panel are drawn on, in conjunction with the relevant stakeholder (e.g. the Investment Board of Nepal), depending on the specialist contributions needed in technical areas. This ability to scale the team up and down ensures flexibility in line with the adaptive programming approach and ensures value for money in resource allocation.

However, the adaptive management approach must be complemented by adaptive budgeting and flexible resources that might need to be increased if the project targets change, or even reallocation of budgets between interventions.

Building the skills of the private sector

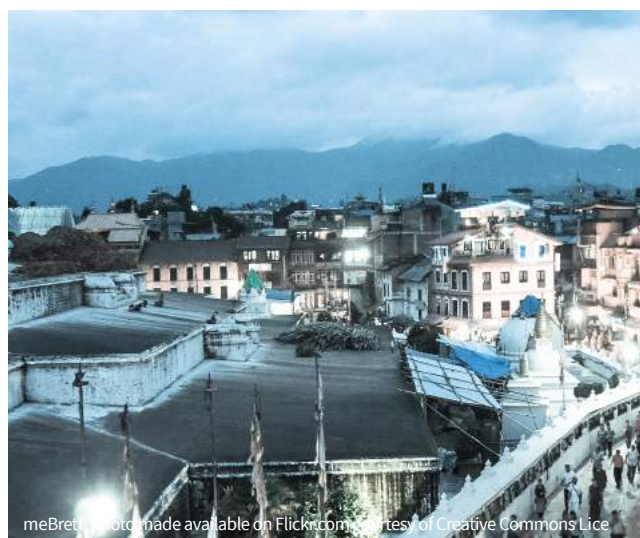
The infrastructure sector relies heavily on the private sector for delivery. However, relatively few projects are dedicated to building its capacity.

To fully harness the private sector's potential to introduce innovation and competition, TA programmes should also be geared towards contractors and consultants. This, together with support to the public sector, could lead to significant cost savings and improved technical development of the infrastructure sector.

Several factors undermine the private sector in developing countries. Contracts are often overly complex. Moreover, they are written on the basis of each party being competent to take on the specified roles and adequately manage the assigned risks. In case of poor performance or time delays due to poor planning, under donor-funded projects, clients have to hold contractors responsible and apply the penalty clauses defined in the contract. Late payments to contractors also act as disincentives.

Within CrossRoads, IMC partnered with the Directorate of Industrial Training to develop vocational schemes, strengthened the Uganda National Association of Building and Civil Engineering Contractors and helped train consulting engineers to international standards. Moreover, CrossRoads started teaching small enterprise contractors the skills they need to operate in a competitive commercial environment. IMC also set up long-term training systems to address the lack of skilled personnel to operate plant and equipment efficiently.

Within RAP in Nepal, IMC developed a paid internship and graduate scheme as well as a continuing professional development programme to bridge the country's skills gap.



Following the success of these schemes, the National Reconstruction Authority intends to adapt the RAP model and develop a graduate development programme to better support and improve retention rates among the engineers that work in earthquake-affected districts. This scheme will link up with the Nepal Engineering Council's drive to introduce a Professional Engineering (P Eng) status and eventual international recognition by the International Engineering Alliance. IMC is also supporting this P Eng programme.

Poor pay and working conditions and civil conflicts have resulted in a 'brain drain' of engineers in many low-income countries. There is often a missing generation to implement projects and young engineers can be left without good mentors to help them develop their technical and management skills.

Graduate and technician development programmes could address this, especially if linked to a national or international professional qualification. Many countries where IMC works, such as Nepal and Ethiopia, do not have any form of professional registration and rely on years of experience only, regardless of the quality of that experience. This is aggravated by the fact that, unlike financial audits, systems for project quality management auditing, including technical verification, are less common. Alongside other measures, they could help identify and prevent poor quality work.

Support to introduce professional qualifications may go a long way to improving an overall sense of professionalism, get better performing local engineers and attract back to the country qualified individuals currently working abroad.

What have we learnt?

When technical assistance programmes are well designed and implemented, they can dramatically improve lives in low- and middle-income countries.

They can increase the capacity of the national private sector to deliver high-quality, sustainable infrastructure while enhancing the effectiveness and efficiency of state institutions to maintain it. They can also help reduce corruption and increase infrastructure quality and safety, which results in better value for money.

This will help to attract much needed private investments in infrastructure programmes and, in turn, create employment among local populations.

Ultimately, technical assistance programmes can bring lasting change to a recipient country by accelerating its socio-economic development.

However, our experience has taught us that such programmes should include some key ingredients in order to achieve positive outcomes:

- Thorough project preparation, which includes full agreement between donor and client government - at all levels - on the objectives, scope and desired impact of the TA. This must include adequate donor-stakeholder engagement throughout the planning and design phases, until the TA consultant mobilises, in order to avoid any discontinuities between design and implementation.

- Continued support from both donor and client government to the consultant during implementation. This should take the form of a dialogue that leads to a common approach to achieving sector vision and better donor coordination.
- Appreciation by all parties of the time required for successful TA based on growing trust between all stakeholders. Programmes' extensions might need to be considered to fully embed institutional changes and consolidate gains from specific project outputs.
- A contract that facilitates flexibility and adaptation by the TA consultant to changes in circumstances that can lead to new directions and opportunities. Ideally, a drawdown fund could support initiatives within the programme that may come to light during implementation and could have a significant impact on its overall success and sustainability.

This suggests that other donors could follow DFID's lead in employing adaptive programme management in the delivery of infrastructure TA projects.

Sustainable infrastructure lies at the heart of the 2030 Agenda for Sustainable Development. Given the interconnected nature of the global goals, achieving SDG 9 would also help achieve the others.

If we are to end poverty in 13 years, it is crucial we get this right, now.

