



GREEN CITIES, INFRASTRUCTURE AND ENERGY PROGRAMME (GCIEP)

The role of a Project Development Plan to support a coordinated approach to the Urban Rail Transit System in East Java

Surabaya, the capital of East Java and Indonesia's second-largest city, is aiming to invest in sustainable, accessible urban rail. The Urban Rail Transit System (URTS) project has the potential to transform travel for many of the city's residents but faces a complex stakeholder landscape. Diverse local communities and economic interests must be carefully considered to avoid social or economic disruption, and the scale of the project will require coordinated involvement from provincial and central government authorities. The Green Cities, Infrastructure and Energy Programme (GCIEP), harnessing the UK expertise of Crossrail International, worked with the East Java Government to guide the development of a project development plan (PDP) for the URTS. The PDP sets out the elements that need to be addressed for the set-up and subsequent development of the URTS. It provides guidance, based on proven good practice, on how such a project could be organised, governed, planned and managed as it progresses from completed studies into structured project development and, subject to approvals, delivery.

Infrastructure is an expensive, long-term investment for a city, province or country. However, studies around the world show that infrastructure projects repeatedly run over time and budget. In doing so, projects often fail to deliver their full potential outcomes and benefits, such as improved accessibility and inclusivity, reducing greenhouse gas emissions, increasing employment

or economic development. The benefits that are achieved are often not distributed equally. Inadequate consideration of barriers related to gender, disability, and other social factors, such as age, race and ethnicity, can result in exclusion and have disproportionate impacts on groups affected by marginalisation. Many of these challenges can be addressed with a robust PDP.

Benefits of a project development plan

A good PDP facilitates the thinking, conversations and agreements across the multiple functions that work together to deliver a project. Compromises on requirements, agreement on execution and procurement strategies, development of a mixed organisation, transparent

and consistent delegations of authority and other elements can be described in a PDP, leaving no room for confusion between stakeholders and delivery partners.

Recurring weaknesses in project delivery worldwide

- Flexible requirements leading to frequent scope and design change.
- Insufficient integration of social and environmental sustainability targets into the requirements phase.
- Poor (usually optimistic) schedule and cost estimates.
- Failure to think 'from right to left' – not considering operations from the beginning.
- Insufficient stakeholder engagement.
- Lack of integration and co-ordination – including strong ownership of an integrated schedule across all parties.
- Insufficiently resourced organisation to provide strong client and sponsor functions with an integrated project team approach.
- Complex governance and decision-making routes.

A high-quality PDP addresses all of the above.

The PDP GCIEP developed for East Java is a framework. At this point, the actual content – which would include a feasibility study, settled requirements, estimated costs, and organisations for delivery and sponsorship – are all in development. The role of the PDP at this stage was therefore to provide a target; a list of the pillars of good delivery which can be completed as the project progresses.

Setting out the strategic roles and functions in infrastructure project development

Rather than repeating the 'standard' processes of project management, such as project controls, the PDP focused on the strategic aspects, which include:

- **Roles and Accountabilities:** this is generally broken down into the Sponsor (championing the project, owning the business case, finalising the requirements); the Client (responsible for fulfilling the brief set by the Sponsor); the Asset Manager (responsible for day to day operations and maintenance and must have input into the requirements); the Market (organisations which deliver services and goods). A clear understanding and delineation of roles and accountabilities is key for success.
- **Requirements hierarchy:** no project stands alone, it always sits in a system of existing, concurrent and future projects that deliver the strategic vision for transport. It is critical to ensure that there is alignment across all levels of requirements, generally articulated as – Business Domain (strategic), Sponsor Domain (high level project – outcome based); System Domain (project system level); Asset Domain (project level, asset specification). It should be noted specifically that Requirements define not just the technical aspects but must also include the wider strategic goals of sustainability in all its aspects – social and environmental.
- **Organisation:** for a 'pop-up' project like East Java which is not placed in an institutional environment that repeatedly delivers projects of this nature (as would be the case in the UK, within organisations such as Transport for London, Network Rail and National Highways), the delivery organisation (the Client) must develop a full range of skills and capabilities. Specifically, this means embedding sponsor, operations, stakeholder and community engagement, environmental and social sustainability and land acquisition capabilities. It is very likely that the Client organisation will itself be made up of multiple specialist organisations. These must act in 'One Team' approach with strong focus on the common objectives, the interests of the project as a priority and a shared culture and set of values.
- **Governance:** this aspect may be split into two, external and internal governance. The first refers to the external approvals the project will have to achieve – typically from funding and national level authorities. Internal governance refers to the project level decision making that ensures, as examples, management of risks, clear reporting, transparent change, systems design. In both cases it is necessary to have clear delegations and routes to resolution to prevent confusion and delay.

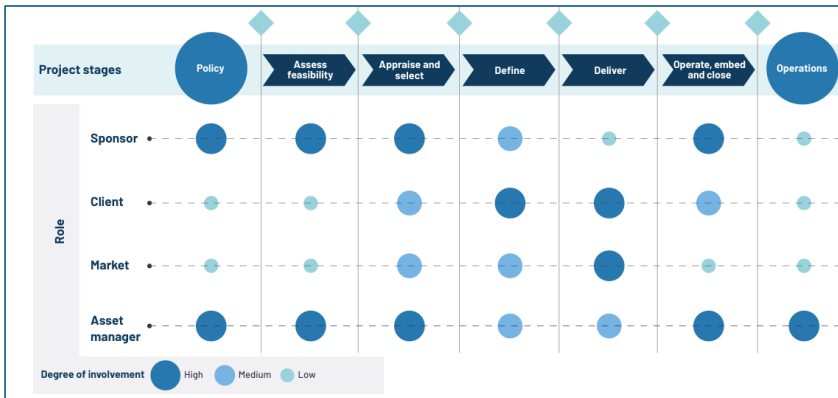


- **Decision Gates and Project Management Framework:** working in conjunction with the UK's Five Case model, that is familiar to many levels of government in Indonesia, an aligned lifecycle provides tests at each stage to ensure continued viability of the project and effective plans and sufficient funding for the subsequent phases.

The involvement of the core roles varies across the lifecycle, as shown in the figure.

The project management framework developed for East Java is based on the structures used by the major project delivery units in the UK mentioned above. It is based on achieving and evidencing progress in a transparent manner across the lifecycle stages, through the production and approval of a series of core documents.

- **Environmental and Social Sustainability:** the project must translate the vision into operationalised actions and formal documents that ensure consistent implementation throughout delivery. Typically, sustainability targets are built into, for example, design criteria, tender documents, management plans received from suppliers and delivery strategies. This may be done through integrating relevant criteria into project documentation – for example, environmental standards into design standards, social value / gender equality, disability and social inclusion (GEDSI) measures into tender documents. This integration provides the essential bridge between high level objectives and practical execution. It is important to note that environmental and social targets should go beyond risk mitigation and identify opportunities to increase environmental and social value for the project.



Source: Infrastructure and Projects Authority, 2021, Project Routemap (Organisational Design and Development)

Key learning points

GCIEP's PDP is focused on the elements of successful project delivery:

- An agreed set of project requirements.
- Clear identification of, and accountabilities between, the sponsor, client, asset manager and the market.
- Integrated organisation with full capability, specifically with operations expertise, from the start.
- Transparent internal and external governance routes for effective decision-making.
- A structured gating process and a clear project management framework for delivery.
- Sustainability requirements built into the system by integrating them into core documents and processes, accompanied by rigorous monitoring.
- Intentional integration of environmental and social considerations from the beginning of the project to maximise impact.

Across all of these functions, accountability for target achievement should be embedded within the project delivery structure. The key issue is to maintain presence and visibility of each important strategic area, which should be ensured with representation within the project team.

The structure of the PDP was presented by GCIEP to national and regional representatives in March 2026. Discussions at the handover focused on the respective roles of the various authorities, which was recognised as the starting point of the PDP. Only with clear accountabilities can a project hope to succeed, from defining and agreeing requirements, through delivery and into operations and maintenance.

GCIEP is a demand-driven initiative focused on sustainable green cities and climate-resilient infrastructure in lower-income countries. As the flagship programme of the UK's Centre of Expertise for Green Cities, Infrastructure and Energy, GCIEP supports the UK Government's mission to accelerate investment in, and delivery of, infrastructure and urban development that is responsible, reliable, inclusive, low-carbon and climate-resilient.

A significant proportion of GCIEP's work is carried out in seven priority countries: Ethiopia, Ghana, Indonesia, Philippines, Mozambique, Vietnam and Zambia, where a Deep Offer programme provides long-term, systemic interventions focused on transformative change and infrastructure financing.

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The UK's Green Cities, Infrastructure and Energy Programme accelerates the delivery of sustainable green cities and climate-resilient infrastructure – tackling climate change and extreme poverty.