ACTION AREA 4: PROJECT PLANNING, DEVELOPMENT AND DELIVERY

Key messages

- Inclusivity should be considered at all stages of the project – planning, development, delivery and operations, through to decommissioning. This is referred to as the project lifecycle approach to inclusion.
- Inclusivity should be incorporated as part of the overall project strategy, through to defining specific targets and mechanisms for design, implementation and compliance. A Social Equity Plan can help set out the considerations and targets throughout the project lifecycle (see also *Action Area 1: Stakeholder Identification, Engagement and Empowerment*).
- The inclusion of representatives from under-served and vulnerable groups in general planning committees should be considered to ensure a better understanding of the barriers faced by these groups.
- A suitably-qualified, dedicated team or project member should continuously engage with groups that tend to be neglected or under-represented in the decision-making process.
- The procurement stage provides an opportunity to specify to bidders the selected national or international design standards and codes that will need to be followed during the project's design and construction.
- Inclusive urban development demonstrates how inclusivity should be considered in an integrated, cross-sectoral manner to maximise the potential benefits to low-income and other disadvantaged groups.

Three key practices have been identified under this Action Area, for which further detail and guidance is given in the sections below:

Inclusive Project Lifecycle	Project Management and Supervision	Inclusive Urban Development

DEFINITIONS AND CONTEXT

Definitions

An inclusive **project lifecycle** approach covers all stages of the project - planning, development, delivery and operations, through to decommissioning. It addresses the strategic questions of 'what', 'when', 'why', 'how' and 'by whom' for all infrastructure projects. From an inclusivity perspective, the beginning of the project planning process is the ideal time to assess and ensure that inclusivity is embedded in every aspect of the project throughout the project lifecycle, including management, supervision, monitoring and evaluation[94].

Context

Inclusivity cuts across a project – from planning, design, financing, procurement and implementation, to operations and maintenance. Initiatives can be developed in line with the project lifecycle, with a clear strategy, objectives and target outcomes for each phase of a project. By doing so, practical decisions can be taken at the project planning stage, i.e. the earliest phase of a project, to determine and influence the potential outcomes in later phases.

In addition to the consideration of practices at an individual project or sector level, the consideration of practices and benefits from a cross-sectoral perspective enhances the opportunities to address the needs of various target groups, including low-income or vulnerable groups. Inclusive urban development is a good example of the need for integrated, cross-sectoral planning, and is outlined as a specific practice below.

Note that inclusivity practices in relation to stakeholder management have been considered in detail in Action Area 1: Stakeholder Identification, Engagement and Empowerment, and are essential to every stage of the project lifecycle.

[94] For the purpose of simplicity, references to "project" include both "program" and "project", since some portfolios of projects may be managed at a program level.

ANALYSIS AND GUIDANCE ON PRACTICES

INCLUSIVE PROJECT LIFECYCLE

Overview

To realise the benefits of improved inclusivity in infrastructure, inclusivity must be a guiding principle which is embedded at the policy and regulatory level, and at every stage of the project lifecycle. This involves incorporating inclusivity as part of the overall project strategy through to defining specific targets and mechanisms for design, implementation and compliance.

For example, certain disadvantaged groups, such as women, face challenges in local infrastructure planning, procurement and operation because their behavioural patterns and information preferences are not considered[95]. Their needs and concerns are often left out during the technical planning process for infrastructure and services, and related policies. Applying an inclusive perspective to infrastructure projects can positively benefit service providers, their customers, and society in general.

Integrating inclusivity practices at all stages of the project lifecycle, from project preparation, financing, design, project procurement, construction and operation, to project monitoring and evaluation, is likely to lead to greater socioeconomic benefits.

Relevance

It is important to set a precedence for the consideration and integration of inclusivity in the overall project strategy by embedding the concept early on and establishing clear inclusivity targets.

At the policy level:

- *Informing project development and delivery through inclusive policy.* Policies can define how inclusivity is integrated into project planning, design and delivery.
- *Setting inclusive parameters.* In line with a country's inclusive development strategy, the approach to monitor and evaluate performance management systems enables specific parameters to be set for a project to be appraised, approved, delivered and operated.

At the project level:

- *Integrating inclusive principles throughout the project lifecycle.* Considering inclusivity at every stage of the project ensures early consideration and integration of inclusivity in the overall project strategy.
- *Including stakeholders in project development and monitoring.* Stakeholder engagement in project management and supervision activities can support and foster aspects of inclusivity.
- *Using a project lifecycle approach.* The available literature on inclusivity indicates that a project lifecycle approach underpins the general success of a project and is particularly useful in incorporating inclusivity targets[96].

Guidance

The concept of embodying inclusivity throughout the project lifecycle is relatively recent and, therefore, has not been researched, tested, applied and documented. However, the literature has described the approach as it relates to specific topics[97]. Figure 8 showcases the stages in which practices can be applied in the project lifecycle.

Figure 8: Project lifecycle and integrating inclusivity

[95] Strategy for the promotion of gender equality, (European Bank for Reconstruction and Development, 2016)

[96] Closing the Last Mile for Millions. (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), 2015)

[97] Integrating Gender Considerations into Energy Operations, (World Bank, 2013), Youth scoping study: Boosting Youth Employment through Infrastructure Programming, (Haegeman, 2017)

1 Policy and regulation

1. Set out the policy requirements in the business case and build them into the project objectives.

The application of inclusivity in policies and regulation is the responsibility of the government agency proposing the project and the relevant regulatory bodies. The role of the government is to ensure compliance. This can be done by setting out the requirements in the business case and building them into project objectives, along with the proposed approach to project management and the approval processes that will help the wider team comply with the mandated policies. General guidelines may need to be established to direct project teams in planning, design and delivery to meet inclusivity mandates. For more information, please refer to Action Area 3: Policy, Regulation and Standards.

2 Project preparation

2. Integrate inclusivity at the project planning stage to maximise benefits across the project lifecycle.

Considering inclusivity during the project planning stage will provide more opportunities to influence the design, construction, operation and maintenance of infrastructure facilities. Setting inclusivity targets and measurable outcomes at this same stage creates alignment throughout the project. Accessibility audits can help to identify and address problematic issues in a proposed infrastructure project at an early stage, at a time when such issues can be more easily addressed. In addition, aligning this work with the requirements of other policies and strategies helps to set project objectives and principles.

For instance, gender sensitivity can influence the way infrastructure projects are planned, designed and executed. In Colombia, the Bogotá Urban Mobility Survey (2005) showed that women use public transport for two main reasons – economic and domestic – and their patterns of usage included consecutive trips of shorter duration, that usually begin later in the day, and frequently include children. These characteristics have direct implications for the design and frequency of routes and the accessibility of services[98].

3. Provide a dedicated project member, who continuously engages with groups that tend to be neglected or under-represented in the decision-making process.

This may be a project-specific decision but may also be mandated by wider policy or regulatory requirements.

4. Identify corridors, areas, groups and enclaves that have not benefited equally from current infrastructure investments (first mile vs. last mile infrastructure investment, corridor projects, major vs. small infrastructure projects).

Once this determination has been made, the next step is to prioritise programs and projects that aim to achieve universal access, such as the Kenya Last Mile Connectivity Program of the Kenya energy sector, as enabled by the Energy Act with its associated mechanisms and organisations[99] (see the *Kenya Last Mile Connectivity Program Case Study* in *Section 4*).

5. Include social perspectives in project strategy with measurable objectives.

Specific stakeholder groups should be identified and baseline socioeconomic indicators collected and analysed. The disaggregated data enables in-depth monitoring of the long-term impact of the project. Often, monitoring and evaluation is ad hoc and only conducted for a short timeframe after the completion of construction. There should be a determination of the monitoring and evaluation timeframe, which should extend beyond short-term economic fluctuations and cycles. It is recommended that input is sought from a social or gender expert in the development of project objectives, components and scope to identify potential inclusivity-specific activities. For example, gender action plans should include setting up a skilled team to address gender issues in a project[100], and the inclusion of representatives from vulnerable groups in general planning committees should be considered to ensure a better understanding of the barriers faced by such groups[101]. In case there is no planning committee, a questionnaire can also help to obtain the inputs of disadvantaged groups on aspects of inclusivity.

6. Ensure sufficient and robust disaggregated data are available for project assessment.

If this cannot be done internally within the project team, external support for data collection should be sought. Refer to Action Area 1: Stakeholder Identification, Engagement and Empowerment.

[98] Sustainable Infrastructure for Competitiveness and Inclusive Growth, (Inter-American Development Bank, 2014)

[99] Closing the Last Mile for Millions, (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), 2015)

[100] Integrating Gender Considerations into Energy Operations, (World Bank, 2013)

[101] Accessibility Design Guide: Universal design principles for Australia's aid program, AusAID, (Australian Government, 2014)

7. **Establish a baseline and assess national, regional and international benchmarks to compare existing data to other cities or locations and determine current performance prior to intervention.** Analysis of this data may assist in setting specific inclusivity targets and objectives for the project.

8. **Consider the needs and expectations of identified stakeholders in the technical feasibility studies.**

Stakeholder input should be tailored to each stage of an infrastructure project. For example, public consultations are important for project planning and at the design stage when input into the design is sought. See Action Area 1: Stakeholder Identification, Engagement and Empowerment.

9. **Include a socioeconomic study in the financial feasibility studies** that incorporates the economic and social costs and benefits of the project, including those related to inclusion, and that allows for a sensitivity analysis of the various factors.

Aside from the quantitative direct benefits, the cost-benefit analysis must also include the qualitative and indirect benefits that are not monetary. See Action Area 6: Affordability and Optimising Finance for further information on socioeconomic cost-benefit analysis.

10. **Assess the project's potential benefits and also negative impacts to society.**

An in-depth analysis should be carried out on who benefits, who is at risk of being excluded and of the people who could be negatively impacted by a project. It should cover the economic, commercial, environmental and social impact of the project[102]. Refer to *Box 13: Illustrative example – How to overcome the hurdles of last mile infrastructure* on how to deal with the challenge of delivering 'last mile' infrastructure for water projects in Kenya.

Carrying out an Environmental and Social Impact Assessment (ESIA) and implementing the safeguards for potentially negatively affected people is not the focus of this reference tool, however it is a hugely important area and an example of inclusive stakeholder engagement activities in the ESIA is provided by the *Cairo Metro Case Study* in *Section 4*.

3 Financing and design

11. **Ensure the needs and expectations of under-served and vulnerable groups are taken into account in preparing the design and financial models for infrastructure projects. This may involve the following activities:**

- public consultations;
- in-person surveys;
- site visits;
- the establishment of community-based structures; and
- willingness and affordability studies.

12. **Identify financing models and partners that consider high socioeconomic returns and favour the local economy in the form of job creation and long-term development.**

Refer to Action Area 6: Affordability and Optimising Finance for further discussion on financing models. In many developing and emerging markets, multilateral institutions with inclusivity mandates (such as the EBRD) can help support a project with financing and expertise. Where an approach, such as a public-private partnership (PPP), is being used, social performance indicators can be linked to payment mechanisms.

13. **Evaluate and select national and international design standards and codes that ensure universal access to physical infrastructure and associated services.**

Infrastructure design should not be discriminatory in any form. Universal Design standards should be incorporated during the design stage of the project to achieve cost-efficiency. For more information, please see Action Area 3: Policy, Regulation and Standards.

4 Project procurement

14. **Specify the selected national or international design standards and codes that ensure universal access in the Request for Proposal** (RfP) that will be issued to bidders, and that will need to be followed in the design and construction of the project.

[102] Note that at this stage, only a high level environmental and social impact assessment is conducted, to be further refined in the design stage.

15. Consider bidders' experience and qualifications in delivering projects to maximise inclusivity and social returns to the community.

The bid evaluation, qualification and the interview process should specifically explore and test the bidders' experience in regard to delivering inclusive infrastructure projects. In addition, appointed members of the evaluation panel should include representatives for under-served and vulnerable groups. The Case Study on the *U.S. Bank Stadium* (see *Section 4*) describes an Equity Review Panel which provides advisory recommendations included in the hiring decision following interviews with potential construction managers on their experience and strategies to comply with the Equity Plan.

16. Include specific inclusivity conditions in the tender minimum requirements, targets in the award criteria and contractual obligations.

For example, the inclusion of women or other minority groups in the design and construction of the project can involve giving preference to certain types of businesses (such as those enterprises that are owned by women or people with disabilities) or having workforce targets (such as having a minimum number or percentage of women employed). This may also apply to PPP contracts, such as mandating the involvement of vulnerable groups in the design process and incentivising the expansion of opportunities for these groups to work in the delivery and operation of infrastructure[103], and establishing performance indicators related to inclusivity in the contractual agreements to measure the success of the project and define penalties for non-compliance. A sample project in this regard is described in *Box 14: Illustrative example – Robust enforcement of inclusivity policy in the Kingdom of Saudi Arabia.*

17. Encourage the use of local content and training if not already set out in national law.

A study of numerous low-income economies found that labour-based local content procurement created up to five times the employment for the same investment[104]. A water project in Saudi Arabia demonstrates this through the requirement for the employment of local labour in the procurement contract (see *Box 14: Illustrative example – Robust enforcement of inclusivity policy in the Kingdom of Saudi Arabia)*.

18. Establish a Social Equity Plan to facilitate interaction between the procuring agency, bidders and groups in society at risk of being discriminated against, to encourage dialogue and participation in the process.

5 Construction and operation

19. Assess potential labour supply and demand issues, as the integration of specific inclusivity targets may be inhibited by current market conditions.

For instance, even if targets have been set, there may be insufficient skills within the local labour market to deliver the project, which prevents the integration of workers from vulnerable groups. Therefore, governments may need to provide facilitation and guidance to ensure contractual inclusivity objectives can be achieved. The *U.S. Bank Stadium Case Study* (see *Section 4*) offers a good example of undertaking a gap analysis to examine the projected labour requirements.

20. Offer employment and training to members of groups in society who do not have equal access to employment for construction and operation roles.

An effective and successful method of doing this has been demonstrated in the U.S. Bank Stadium project, which developed an Equity Plan for the design and construction phases. A key element of this plan was workforce utilisation targets in relation to women and minorities, as well as targets for engaging women- and minority-owned businesses. An Equity Plan was also created for the operation of the stadium and replacement works, which featured similar mechanisms to drive inclusivity.

In another example, a lack of training and skills was identified as being one of the reasons that there were no female bus drivers in Almaty, Kazakhstan. This was addressed through training, supported by the EBRD. The training went beyond the skills needed for the actual job to include enhancing the skills of the human resource team. This led to an increased ability to approach and attract female bus drivers as part of the recruitment efforts (see *Box 9: Illustrative example – EBRD's Economic Inclusion Strategy and Inclusion Policy Engagement.)*

[103] Infrastructure: A Game-changer for Women's Economic Empowerment, (Biswas & Mohun, 2016)

[104] Of nets and assets: Effects and impacts of employment-intensive programmes - A review of ILO experience, (Keddeman, 1998)

21. Implement a robust payment mechanism in line with the agreed inclusivity targets.

As demonstrated in the *U.S. Bank Stadium Case Study,* approval of work and release of payment was only provided upon successful achievement of workforce utilisation targets and agreed integration of women- or minority-owned businesses in the project. Measures of non-compliance were also stipulated in the contracts between the implementing authority and the private sector.

6 Monitoring and evaluation

22. Align monitoring and evaluation with the overall program or project objectives and integrate measurable parameters.

In the U.S. Bank Stadium project, one of the main objectives was to distribute economic benefits of the urban development to women and minority groups in Minnesota. Parameters for monitoring and evaluation were included throughout the entire project lifecycle to ensure the program's objectives were met. These were specific targets, such as the share of women and minority workforce employed and share of women- and minority-owned businesses contracted.

23. Ensure the findings feed into the policy and regulatory cycle to integrate lessons learned on inclusivity.

Benefit realisation and lessons learned reports are powerful references for policy-makers. The London 2012 Olympic and Paralympic Games Committee prepared a 'lessons learned' report with detailed drawings and specifications on inclusive design. This legacy report provides practical reference for the future implementation of universal policies and designs for large infrastructure projects[105].

7 Decommissioning[106] and upgrading assets

24. Formulate a decommissioning or upgrade plan.

For infrastructure assets, especially long-term or large projects, it is crucial to have a decommissioning plan or asset upgrade plan in place. These are complex processes beginning far in advance of the expected decommissioning or upgrade dates[107]. Proper planning can be achieved by an appointed team or committee tasked to produce comprehensive decommissioning or asset upgrade plans. This plan should be systematic and in accordance with regulatory requirements. The decommissioning and upgrading plans will also identify and mitigate micro and macro social issues that may arise[108] from these activities.

Decommissioning or upgrading infrastructure assets can have far-reaching implications. Socioeconomic factors relating to the workforce involved in the operational facility, or the local and wider community, are key to evaluating the success of the process[109]. For example, if staff members are made redundant, it can have a significant impact on the individual and on the local community, especially in remote locations where the site is a major source of local employment and revenue[110]. Governments should require the incorporation of inclusivity principles into decommissioning plans to ensure that such plans take into account members of groups that do not have equal access to employment or are disadvantaged by technological changes. Retraining and reskilling the workforce in anticipation of decommissioning is one key aspect of inclusive planning that can be explored. One good example was demonstrated in the Build Up Skills Norway program, where onsite construction workers were given education, training and life-long learning to transition to energy-efficient building and the use of renewable energy[111].

[105] Inclusive Design Standards (London Legacy Development Corporation, 2012)

[106] Used as shorthand for the complete process of ending operations of the infrastructure asset.

[107] From late-life operations to decommissioning – maximising value at every stage, (Mckinsey & Company, 2015)

[108] Managing the Socioeconomic Impact of the Decommissioning of Nuclear Facilities, (International Atomic Energy Agency, 2008)

[109] Managing the Socioeconomic Impact of the Decommissioning of Nuclear Facilities, (International Atomic Energy Agency, 2008)

[110] Managing the Socioeconomic Impact of the Decommissioning of Nuclear Facilities, (International Atomic Energy Agency, 2008)

[111] Build Up Skills Norway, (European Commission, 2018)

BOX 13: ILLUSTRATIVE EXAMPLE – HOW TO OVERCOME THE HURDLES OF LAST MILE INFRASTRUCTURE

Project summary

The German Corporation for International Cooperation GmbH (GIZ) shared its experience in Kenya and Zambia in a 2015 report. Experience and research showed that, despite significant investment in the water sector (specifically, in clean water, sanitation and hygiene), low-income groups had been neglected. To achieve successful last mile infrastructure investments, sectoral reform was necessary. This example shows how barriers were identified and, over the process of several years, solutions were developed and implemented at all levels, and throughout various project stages (policy, project identification, financing, implementation, operation and maintenance). Policy interventions included developing an overall framework, which was essential for implementation.

Implementation

Through a better understanding of the challenges and barriers, it was possible to identify various approaches as follows:

- Foundations for scaling up
  - a sector framework covering all project stages (including operations/asset renewal)
  - policy interventions requiring utilities to focus on inclusivity issues
- Institutional mechanisms for implementation
  - establishment of information systems to manage scaling-up
  - development of an innovative financing mechanism through a Trust Fund
  - oversight undertaken by a regulatory body
- Tools and standards for last mile access solutions to enable capacity building
  - preparation of implementation toolkits for last mile water supply and last mile sanitation

Outcomes

The combination of innovative financing mechanisms, a pragmatic stance on service options, and an emphasis on continuous capacity development activities to support sustainable operations of last mile infrastructure have delivered the following in a relatively short time span:

- more than 2.7 million people have been reached with last mile investments in safe drinking water supply within seven years;
- more than 135,000 people gained access to adequate sanitation within the last five years;
- households made substantial savings, incidences of waterborne diseases declined, hygiene improved and the burden of fetching water, usually the task of women and children, has been significantly reduced;
- women have been empowered because they provide and manage water for the household. The reduction in the time needed to fetch water has enabled them to spend that time more productively; and
- remote communities and low-income areas, that were often neglected in the past, now have sustainable access to water services.

Source: GIZ – Closing the Last Mile for Millions, Sharing the Experience on Scaling up Access to Safe Drinking Water and Adequate Sanitation to the Urban Poor

BOX 14: ILLUSTRATIVE EXAMPLE – ROBUST ENFORCEMENT OF INCLUSIVITY POLICY IN THE KINGDOM OF SAUDI ARABIA

The general standard enforcement process used in the Kingdom of Saudi Arabia (KSA) enforces inclusivity at the project level. The Government of Saudi Arabia has mandated the wastewater implementing authority (the Water & Electricity Company (WEC)) to develop and implement more than 15 wastewater treatment plants across the country using public-private partnerships (PPP) on a Build-Operate-Own (BOO)/Build-Operate-Own-Transfer (BOOT) basis. The objectives of this program are:

- to reduce the infrastructure gap and improve the wastewater collection and treatment currently existing in KSA, where less than 50% of wastewater is currently collected and treated; and
- to achieve more social equity and social stability, as well as job creation and equal access to labour market opportunities ("Saudisation").

WEC set out expectations as part of its tender documents. Targets were agreed contractually with developers, engineering procurement contractors, and operation and maintenance contractors for local Saudi content (50% during construction and up to 70% during the operations and maintenance phase) and are being followed up through a monitoring mechanism. Achievement of targets is necessary for work approval, and in the case of failure, financial penalties will apply.

The impact is the creation of employment opportunities in country. Overall, it supports the government's efforts to address inequalities, social disparities and discrimination.

Source: Atkins internal expert

PROJECT MANAGEMENT AND SUPERVISION

Overview

Project management in infrastructure is an activity that takes place during all stages of a project's lifecycle, including the planning, design, financing, procurement, construction, operation, monitoring, evaluation and decommissioning of a project.

An effective project management strategy delivers major infrastructure projects on time, on budget and within prescribed specifications, and requires economic, environmental and social considerations[112] to be embedded in the project management approach and methodology.

Inclusive project management and supervision consider all the inter-related aspects of projects, pertaining not only to the composition of the project management team and the application of processes, but also to the use of best practices that allow for an open system, effective implementation and monitoring of inclusivity targets of a project.

The integration of inclusivity in project management and supervision ensures alignment with policy and provides checks and balances for successful implementation. Defined targets are monitored, and in case of non-compliance, escalation procedures are in place to address the problem.

Relevance

Project management for large infrastructure projects needs to be applied as an open system, considering the complex and intertwined relationship with the areas, sectors and communities which projects traverse and impact upon. An open system involves continuous interaction and interdependency with the changing environmental, social, economic, physical, institutional and political context[113].

At the policy level:

- *Ensuring effective project management through policy implementation.* A project management policy is a framework describing the key elements in the management of all projects. The applications at policy level ensure that projects are effectively managed within the budget, time, risk and specifications;

[112] Mega Projects and Mega Risks: Lessons for Decision-makers through a Comparative Analysis of Selected Large-scale Transport Infrastructure Projects in Europe, USA and Asia Pacific, (OMEGA Centre, 2011)

[113] Mega Projects Executive Summary: Lessons for Decision-maker: An Analysis of Selected International Large-scale Transport Infrastructure Projects, (OMEGA Centre, 2012)

that appropriate governance, control, authorisation and acceptance are established; that stakeholder management is inclusive; and that benefit realisation reviews are conducted at the closing of the project. Some leading examples of project management policies adopted in the UK and Australia are publicly available[114].

At the project level:

- *Establishing project teams responsible for the management of each stage of the project.* Major infrastructure projects have multiple teams concerned with various aspects of the project, including achievement of the inclusivity objectives. Accordingly, the process of project management is one of developing an appropriate plan, with checks to review the performance of the teams and the project against an overall project plan.
- *Assigning a project team according to the institutional set-up.* A team is appointed by the government's implementing agency; depending on the institutional set-up in the country, this can be a dedicated team within the responsible implementing agency or a project management board composed of representatives from the various institutions involved.
- *Coordinating project management responsibilities.* Contracted delivering entities, whether privately-owned or state-owned enterprises, have their own internal project management teams that work with the project team appointed by the implementing agency.
- *Monitoring inclusion throughout the project lifecycle.* Tracking and monitoring inclusivity targets throughout project implementation, from construction to operation, is one of the functions of the project management team. The use of a transparent platform for monitoring that is accessible to all relevant stakeholders (the implementing agency, the contracted delivering entity, etc.) should be considered. In the U.S. Bank Stadium project, the project management team utilised a bespoke web-based solution to monitor compliance of contractors, subcontractors and vendors with the agreed inclusivity targets (see *U.S. Bank Stadium Case Study* in *Section 4).*

Guidance

The following inclusivity principles should form part of project management practices. A detailed mechanism to integrate these principles throughout the project lifecycle will need to be further elaborated based on the requirements of the specific project. The following guidance is based on the universal principles of project management methods such as PMBOK[115] and PRINCE2[116]. Inclusive tasks within each generic process flow are highlighted as guidelines.

1 Initiating

1. **Identify the resources available, including budget, talent, allocation of time, regulatory support and governance structure.**

These dedicated elements are instrumental to effectively implementing inclusion objectives in the project.

2. **Define the project's inclusivity goals by conducting a feasibility study.**

The study is a generic term of reference that provides details on social inclusion aspects to be examined and analysed. It is a checklist of possible issues to be investigated[117].

3. **Establish a project governance structure with the social inclusion team reporting to the advisory or oversight board.**

The specialist team should have enough authority to manage and control the project resources and participants to achieve pragmatic inclusivity targets. The roles and accountabilities of all the participants are defined in the governance structure.

4. **Alternatively, hire a Gender Equity and Social Inclusion (GESI) specialist to manage the inclusion plan in parallel to the project management team.**

In the *U.S. Bank Stadium* and *TransMilenio BRT Case Studies*, the hiring of social inclusion specialists to lead the project management for the social equity plans was instrumental to the successful delivery of the project's inclusivity objectives.

[114] In the UK, Guidelines for Managing Projects - How to organise plan and control projects (Department for Business Innovation & Skills, 2010). In Australia, Project Management Framework and Policy (Federation University of Australia, 2010).

[115] Project Management Body of Knowledge by the Project Management Institute (PMI)

[116] Projects in Controlled Environment, UK Government

[117] Gender Equality Social Inclusion Tools and Guidelines Update (Climate Resilient Infrastructure Development Facility, 2016)

5. **Conduct a screening of social inclusion issues with an initial assessment and justification as to what the expected positive and negative social impacts will be.**

In addition, the screening process requires a further assessment on how and to what extent the project will benefit the vulnerable groups. This initial assessment is used as a basis for the design and planning stages. Where possible, all baseline studies should include quantitative data disaggregated by gender, socioeconomic groups, age, preferences, etc.

Refer to the guidelines detailed in the practices for Data Collection and Stakeholder Identification, in Action Area 1: Stakeholder Identification, Engagement and Empowerment. An example is the "Disparity Study"[118] developed by the City of Minneapolis in the United States, which served as the initial screening for the development of the city's inclusive urban development plan (refer to the *U.S. Bank Stadium Case Study* in *Section 4*).

2 Planning

6. **Confirm objectives, scope, benefits and risks in an inclusive business case.**

The business case for the Mi Teleférico cable cars project in Bolivia clearly set out the government's intention to achieve affordability, accessibility, inclusivity, and financial sustainability (see *Mi Teleférico Cable Car Case Study* in *Section 4*). For more information, please refer to Action Area 6: Affordability and Optimising Finance.

7. **Create escalation procedures and de-bottlenecking processes in case of conflicts and disputes.**

They should be defined upfront and should be part of the project management plan. Tailored procedures in relation to inclusivity-specific challenges should be anticipated. For example, the Metropolitan Expressway in Tokyo, Japan, incorporated an escalation procedure to address the residents' demand for a more inclusive and environmentally sensitive design solution (see *Box 15: Illustrative example – De-bottlenecking processes for the Tokyo Metropolitan Expressway, Japan).*

3 4 Executing

8. **Develop a detailed work plan with realistic and practical actions that are accepted by all implementing parties.**

The detailed work plan should also differentiate between specific interventions supported by the implementing agency and the project company and its contractors. In the U.S. Bank Stadium project, the Equity Plan set out pragmatic goals to integrate women, minorities and low-income residents in the workforce, and women- and minority-owned businesses in the design and construction activities of the project.

9. **Develop a resource procurement plan with clauses embedded to ensure all delivery parties (contractors, designers, engineers, specialists) understand the inclusivity objectives and take appropriate action.**

Projects such as the Water Sector Trust Fund in Kenya and the U.S. Bank Stadium in Minnesota show how this can be achieved in practice (see Case Studies in *Section 4*).

10. **Ensure the action plan has monitoring and evaluation indicators and targets, which are linked to inclusion.**

There are different types of indicators that correspond to each part of the project development cycle, such as risks, input, process, output, outcome and impact indicators.

5 Controlling

11. **Manage quality, risk and change.**

A useful tool to implement is a web-based reporting system, which should be available to all the participants of the delivery team. The project management team of the U.S. Bank Stadium project developed a web-based tool to manage all of the contractors involved in the project. It provided an efficient and transparent reporting platform for all parties involved.

12. **Require monitoring and reporting of inclusivity indicators within a specified time-frame and frequency.**

Attention should be paid to progress against inclusivity objectives, as well as any barriers encountered and possible mitigation strategies to resolve the issues. These reports should be made public, where possible, to provide greater transparency and accountability. The social inclusion team/specialist should control the charter, budget, and risk management, and should prepare periodic status reports.

[118] The State of Minority- and Women Owned Business Enterprise: Evidence from Minneapolis (NERA Economic Consulting, 2010)

13. Manage stakeholders.

The Metropolitan Expressway in Tokyo successfully implemented a stakeholder management process resulting in major improvements to cost reduction and conflict resolution. For a summary of the stakeholder engagement process, see *Box 15: Illustrative Example – De-bottlenecking processes for the Tokyo Metropolitan Expressway, Japan.*

For detail on this guidance refer to Action Area 1: Stakeholder Identification, Engagement and Empowerment.

6 7 Closing

14. Prepare a 'lessons learned' report with as much information as possible to generate efficiencies in the future.

The 'lessons learned' report is a valuable legacy of the project and can increase the impact of the inclusivity work of the project. An example is the Learning Legacy Report from the London 2012 Olympic and Paralympic Games[119] construction project. It sets out the inclusive design standards used in the construction projects and highlights examples of best practice and tools and templates that proved to be successful in this large and complex project.

15. Develop a benefits realisation report following construction of the project, and at intervals during operations, to assess whether the benefits realised are according to the targets outlined in the business case[120] and to inform future initiatives.

Reporting should include a dedicated section on the results of the social inclusion activities, at completion of construction and at regular intervals during operations.

The U.S. Bank Stadium, Colombia's TransMilenio bus rapid transit system, Mi Teleférico in Bolivia, and Kenya's Water Sector Trust Fund are projects that update their benefits realisation reports periodically and make them available on their websites (see *Section 4* for Case Studies on these projects).

[119] Inclusive Design Standards (London Legacy Development Corporation, 2012).

[120] Guide to Project Management: Getting it right and achieving lasting benefit (Roberts, 2013)

BOX 15: ILLUSTRATIVE EXAMPLE – DE-BOTTLENECKING PROCESSES FOR THE TOKYO METROPOLITAN EXPRESSWAY, JAPAN.

Project summary

An 18.2km section of the Metropolitan Expressway, the Central Circular (C2) Shinjuku Route, known as the Yamate Tunnel, opened in December 2007 for the initial section and in 2015 for the entire tunnel. The project is the world's longest in-city road tunnel. It runs alongside major utility infrastructure and is crossed by 11 rail lines. The project aimed to address the serious congestion expected in the future urban development of Tokyo.

The project was appraised at USD 5.5 billion. Its planning started in the 1970s; the construction started in 1992, running 18 months behind schedule due to the 1990s financial crisis and opposition from residents.

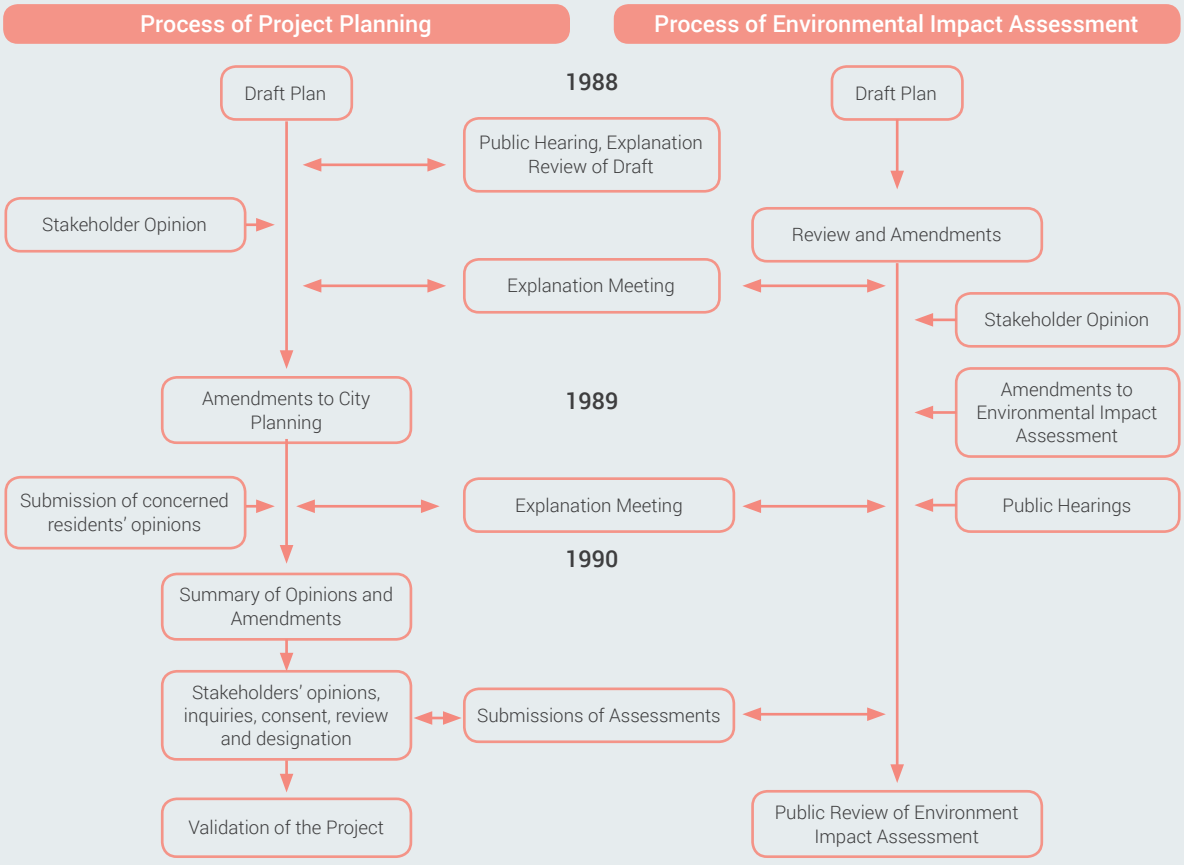
During the delay, the project management team took the opportunity to introduce stakeholder engagement processes and generated more efficient and highly successful technical innovations. As a result, the additional time allowed the project management team to adapt to the new context and effectively reduce costs, improve the schedule, modify specifications and de-bottleneck the opposition and conflicts from local communities.

Open system project management was the key to the successful completion of the project. The new process successfully established an escalation procedure for the public's concerns. Due to the public's input, the specification of the expressway radically changed from elevated design to underground tunnelling. Noise and pollution concerns were addressed with new shield methods and ventilation designs. Sites of natural beauty and cultural properties were preserved.

As a result, the conflicts were not only successfully managed but led to many positive achievements. The construction schedule was improved with innovative technologies. The project was completed at 1% under budget. New specifications allowed for the use of more advanced technologies, and the residents' demands for a more inclusive and environmentally sensitive design solution were addressed.

Displayed below are processes for the City Planning and Environmental Impact Assessment for the Metropolitan Expressway C2 Shinjuku Route.

Source: Project profile Japan C2 Shinjuku Route (Centre for Mega Projects in Transport and Development, Omega Centre, 2012).



INCLUSIVE URBAN DEVELOPMENT

Overview

Integrated planning and delivery approaches may create significant benefits in urban settlements. A holistic approach across all sectors within an urban context leads to better coordination and an increased understanding of dependencies. It also helps to identify the needs of various social groups, particularly vulnerable groups, so solutions that benefit everyone living in urban areas can be developed.

Inclusive urban infrastructure development is defined as an integrated approach encompassing sustainable, resilient, accessible and affordable solutions to the challenges faced by poorer urban residents and other vulnerable groups by enhancing their access to urban services and infrastructure through targeted investments[121].

Using this definition, an integrated approach in urban planning goes beyond the identification of benefits related to individual sector approaches and considers benefits to the wider community in an urban area, particularly to specific communities that benefit from improved transport links, greater urban space and access to basic utilities such as water and electricity.

An inclusive approach to urban development can help to create more cohesive communities, where people from various social groups live together in the same neighbourhood. This encourages positive behaviours, promotes understanding and discourages segregation and the creation of slum areas.

Urban planning approaches should enable the development of communities where people can live, work and play by, for example, locating residential areas within the vicinity of commercial and industrial areas that provide employment. Master planning is key to this. For instance, in Singapore, affordable housing solutions are carefully located to ensure the proximity of these communities to healthcare facilities, transport links (bus stops and train stations), and working districts.

Projects must also consider the socio-cultural context. For example, in 2017, Singapore had a population density of 7,916 people per square kilometre compared to Kenya's 87[122]. In urban, land-scarce and highly populated cities, such as Singapore, high density housing of 15- or 30-storey units is considered socially acceptable.

However, in other countries, such as Kenya, where people are used to living far apart but close to the land, a similar high-rise solution might not be appropriate. There are several statistical and mapping tools that help to assess how an urban community occupies the available space. They can be used to identify patterns of urbanisation, which can be used to inform a developer's approach to inclusive infrastructure.

Inclusive urban development has been highlighted as a separate practice to illustrate the importance of integrated, cross-sectoral approaches at a program, as well as project, level of planning, development and delivery

Relevance

At the policy level:

- *Considering under-served groups in urban planning and development.* Inclusivity must be considered as part of local urban planning policies (such as land use plans, city zoning strategies, etc.), as well as national development planning policies. This is to ensure that, in the planning of urban spaces, which involves transport, water and power utilities and other community services, the needs of vulnerable groups and local communities are considered.
- *Assessing planning alternatives to solve problems caused by rapid urbanisation.* The ways in which cities are planned and built are changing rapidly. This continuous urbanisation can strain the resources and the available space in a city and may lead to social challenges which require the exploration of alternative development options, while still making sure that liveable communities are developed.

At the project level:

- *Aligning projects to the overall city development strategy.* Project strategies must be aligned with the city's development plans, especially on land use and social integration, so that projects contribute to the overall city master plan.
- *Considering the needs of under-served and vulnerable groups early in the project lifecycle.* Inclusivity should be integrated in the project planning phase, where it can affect the strategy and objectives of a project. This involves conducting demand studies and considering the needs of various income groups, and other vulnerable or under-served groups.

[121] ADB Tool Kit for Inclusive Urban Development, (Asian Development Bank, 2017)

[122] Data on population density, (World Bank, 2018)

Guidance

1. **Develop a City Poverty and Vulnerability Profile (CPVP) using the following steps[123]:**

   i. *Develop scope:* Undertake a preliminary, or scoping, appraisal of the city, including an analysis of its role in the national urban system. Consolidate the CPVP through data gathering and mapping, including an annotated city base map, a sociocultural map, a vulnerabilities and/or spatial risk data map, and a future urban expansion map.

   ii. *Review:* Conduct a comprehensive review of available literature on the urban sector policies and regulatory frameworks, including related policies and strategies for climate change and disaster risk management. This involves understanding what makes a successful urban economy and how to achieve poverty-alleviating growth, placing emphasis on mechanisms that build assets and generate income for low-income groups.

   iii. *Validate:* Validate the city development strategy or city development plan based on timeframe, risks, action plan, and baseline audit.

   iv. *Output:* The CPVP will provide baseline data and analysis of the key economic, environmental and social challenges in the city. It will also provide a policy and standards review to enable policy reform, as well as contain sector assessments, and provide key investment shortfalls by sector.

2. **Create a multi-sectoral and integrated approach.**

In the process of building inclusive cities, policies and projects often affect the functioning of multiple sectors, sometimes with detrimental effects to urban low-income communities and/or to inclusivity. For example, the design of a mass transit system that reduces the travel time to central areas of the city is beneficial for all citizens. However, it increases land values and rents along the route. Therefore, the low-income residents may be pushed out of inner-city areas unless complementary public housing or urban upgrading programs are also undertaken[124].

3. **Use a framework to conduct an inclusive needs assessment.**

The Asian Development Bank 2017 publication Enabling Inclusive Cities: Toolkit for Inclusive Urban Development contains a sample framework for assessing inclusivity needs, covering issues such as income, social protection, education, and health[125]. A graphic of the framework is presented in Figure 9, next page.

[123] ADB Tool Kit for Inclusive Urban Development, (Asian Development Bank, 2017)

[124] ADB Tool Kit for Inclusive Urban Development, (Asian Development Bank, 2017)

[125] ADB Tool Kit for Inclusive Urban Development, (Asian Development Bank, 2017)

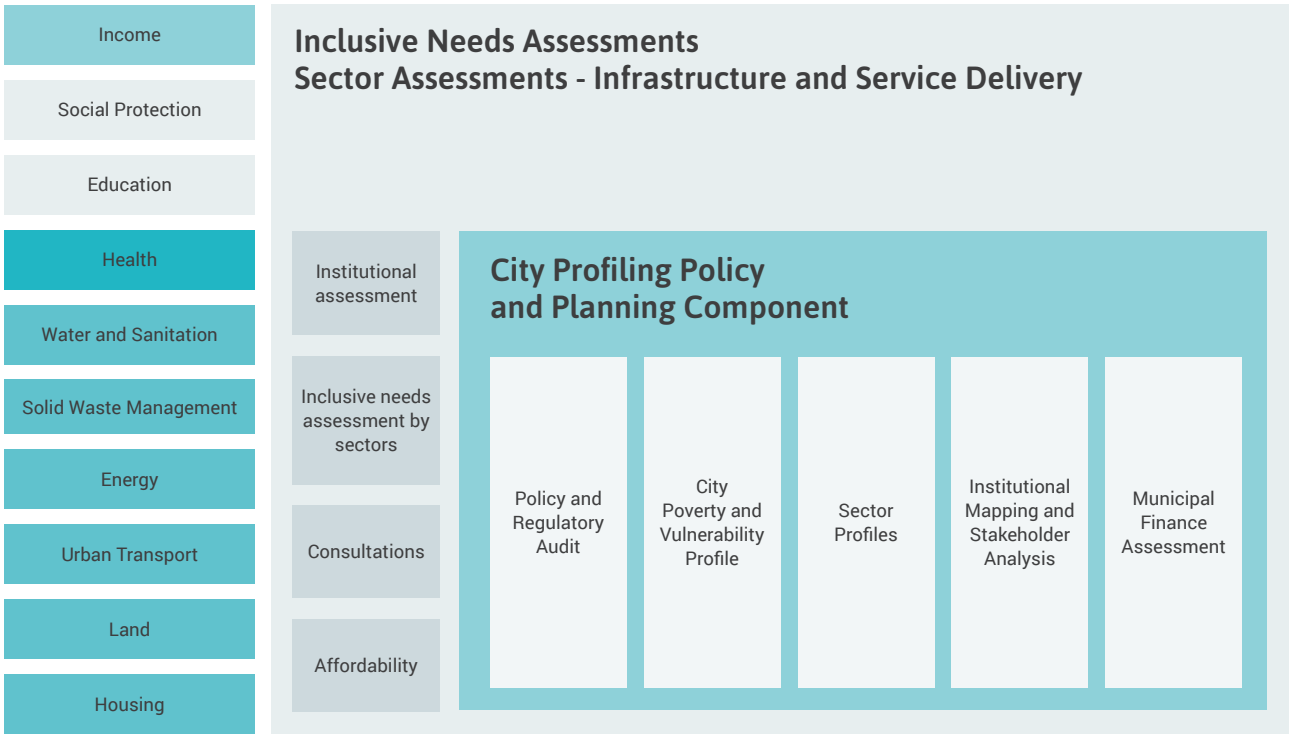


Figure 9: Framework for inclusive needs assessment of urban development

Example

A practical example of the ways inclusivity in urban development can be addressed is set out in the following illustrative example from Colombia's capital Bogotá.

BOX 16: ILLUSTRATIVE EXAMPLE - INCLUSIVE URBAN DEVELOPMENT IN BOGOTÁ, COLOMBIA

The Bogotá Urban Service Project was developed in line with the city's 10-year Spatial Plan and Development and Land Use Plan. It focused on building an inclusive and equitable city and improving people's quality of life through improved access to public transport, better sanitation services and potable water. As well as providing new public transport options through the development of the TransMilenio bus rapid transit system, the project also involved the planning and legalisation of neighbourhoods (*barrios* in Spanish), the construction of storm water, water and sewerage systems, and the creation and rehabilitation of public spaces and community services. Low-income areas were targeted, and disaggregated data was collected in these areas.

One of the lessons learned from previous upgrades was that improvements to the urban area should take into account the public's views and preferences. Accordingly, during the project preparation stage, local planning frameworks [*fichas normativas* in Spanish] were developed. More than 5,200 community leaders were involved in that process. Each team worked with groups of citizens to build local capacity in project planning and implementation. The local planning frameworks also served as the basis for the generation of demand-driven sub-projects. This participatory planning approach fostered a sense of community and increased public involvement in local projects. This, in turn, improved participation in the decision-making process and ensured that all work was tailored to the needs and expectations of the communities.

Source:

World Bank (March 2015), Implementation Completion and Results Report – Bogotá Urban Services Project

http://www.worldbank.org/en/results/2015/08/13/better-transport-water-and-sanitation-for-the-urban-poor-in-bogota

APPLICATION TO TARGETED STAKEHOLDER GROUPS

The general guidance in Action Area 4: Project Planning, Development and Delivery applies to all stakeholder groups, and emphasises the importance of considering inclusion at all stages of the project cycle and in a cross-sectoral manner. Some points on the application to specific stakeholder groups are outlined below.

Low-income groups

Low-income groups are amongst those that risk being excluded but also have the potential to benefit most from inclusive project planning, development and delivery through access to employment and other opportunities. Participatory approaches can help in incorporating the views from people living in all corners of the community, particularly in low-income areas.

Women

The different needs and concerns of women have often traditionally been left out of technical planning for infrastructure, services and related policies. Applying a gender perspective to infrastructure projects can benefit service providers, their customers and society in general. For example, in Colombia, the Bogotá Mobility survey showed that, for many women, the pattern of use of public transport included consequent trips of shorter duration throughout the day and often included trips taken with children – these characteristics have implications for the design of routes and frequency of services.

In developing countries, women often bear the primary responsibility for collection of water and its use in the household, but they are frequently left out of the discussions and decision-making around improving water services.

People with disabilities

Consulting and involving people with disabilities throughout the project lifecycle will not only help to ensure that infrastructure is more accessible, but will also help to identify wider employment opportunities, such as the procurement of enterprises owned by people with disabilities, and to provide feedback to further strengthen operational issues.

Age demographics: youth and older persons

It is also important to consider the needs and opportunities of people in various age groups. Age demographics are changing in many parts of the world. In Africa, the number of youth (aged 15-24 years) is continuing to grow rapidly and by 2030, it is predicted that the number of youth will have increased by 42% from 2015 levels. However, youth unemployment and inadequate skill levels to access jobs are already challenging issues. As illustrated in the *Cairo Metro Case Study*, infrastructure can play an important role in tackling youth unemployment, and these opportunities should be considered together with appropriate initiatives in skills assessment and training[126].

At the same time, the world's population, overall, is ageing. While this demographic trend is most prominent in high-income countries, virtually every country is experiencing growth in the number of old people in their population, with this growth occurring more quickly in urban areas than in rural areas. In 2015, a third of Japan's population was 65 years or over, with citizens also becoming more active for longer periods of their lives. These demographic transitions make it increasingly important that the planning and design of infrastructure and public services consider the needs of both youth and older persons throughout the project cycle.

Infrastructure, including housing and public transportation, and urban environments should support people with a diverse range of functional capacities and help support their productivity, mobility and independence. Safety and accessibility of infrastructure, including for those of limited mobility or with hearing and visual impairments, will benefit both young families and old persons. Policies, such as those illustrated in *Box 21: Illustrative example – Concessionary bus fares, free travel for older people and people with disabilities, United Kingdom*, support the mobility of older people, many of whom are no longer able to drive. New technologies, including mobile devices, also offer new channels for reaching and supporting older people, and governments should help bridge the digital divide through technology training for older persons. However, stakeholder engagement and ongoing interfaces, such as payment mechanisms, for example, should be designed taking into account every age demographic, whilst also considering the appropriate channels for those that cannot or will not access digital technologies[127].

[126] Youth population trends and sustainable development, (United Nations Department of Economic and Social Affairs Population Division, 2015)

[127] World Population Ageing, (United Nations, 2015b)