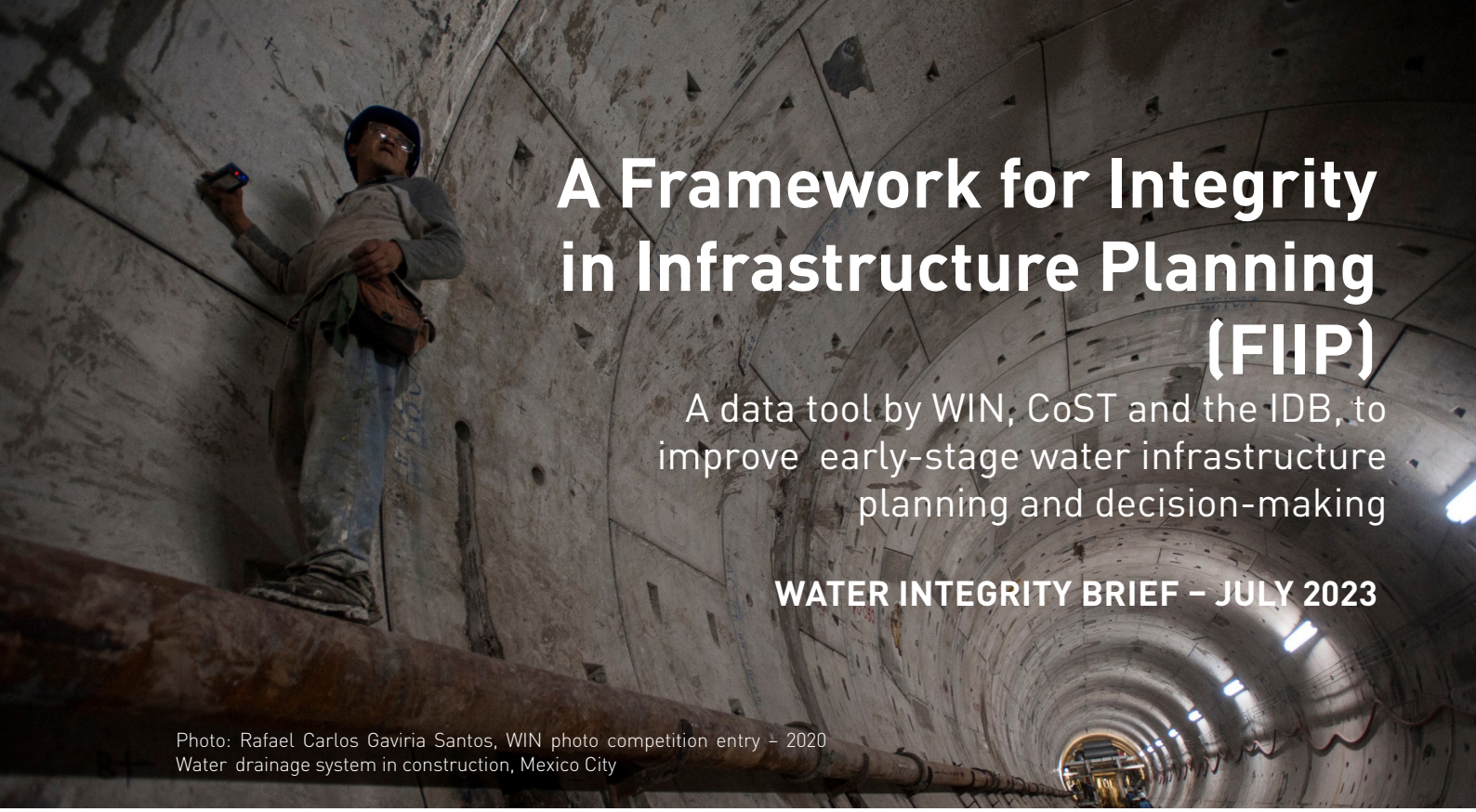


A Framework for Integrity in Infrastructure Planning (FIIP)

A data tool by WIN, CoST and the IDB, to improve early-stage water infrastructure planning and decision-making

WATER INTEGRITY BRIEF – JULY 2023

Photo: Rafael Carlos Gaviria Santos, WIN photo competition entry – 2020
Water drainage system in construction, Mexico City

INTRODUCTION

Poor infrastructure planning can undermine the realisation of SDG6

A study conducted by the World Resources Institute (WRI) estimates that the global investment to cover all WASH-related services by 2030 is $264 billion per annum. This is in the region of 25 percent of the global investment required to meet the whole of SDG6. Providing access to drinking water will require around $114 billion, and the provision of basic sanitation, $91 billion, per annum until 2030.[1]

Poorly planned, designed or constructed infrastructure has long-term negative consequences – social, fiscal, environmental, and economic. Vulnerable communities, who have limited access to water and sanitation services[2], generally suffer most when infrastructure is inadequate. To meet the SDGs, we need to ensure that limited financial resources deliver the required outcomes. This means that these limited resources must contribute to infrastructure that is sustainable and climate resilient, affordable, and that serves areas of greatest need.

Unfortunately, examples abound of failing projects, from wastewater treatment plants that are not in operation after being built, to pipelines with maxed out budgets that are years behind schedule, to systems that do not have the capacity to deliver sufficient service even before they are completed. Systemic weaknesses in the way that infrastructure is planned, appraised and approved, along with complex supply chains, sector technicalities, and

[1] Strong, C.; Kuzma, S.; Vionnet, S. and Rei, P. 2020. "Achieving Abundance: Understanding the Cost of a Sustainable Water Future." Working paper. Washington DC: World Resources Institute. Available at: https://www.wri.org/research/achieving-abundance-understanding-cost-sustainable-water-future

[2] Jenkins, M. (2017). The impact of corruption on access to safe water and sanitation for people living in poverty. Bergen: U4 Anti-Corruption Resource Centre, Chr. Michelsen Institute (U4 Guide 2017:6). Available at https://www.u4.no/publications/the-impact-of-corruption-on-access-to-safe-water-and-sanitation-for-people-living-in-poverty.pdf.

WIN Water Integrity Network

CoST Infrastructure Transparency Initiative

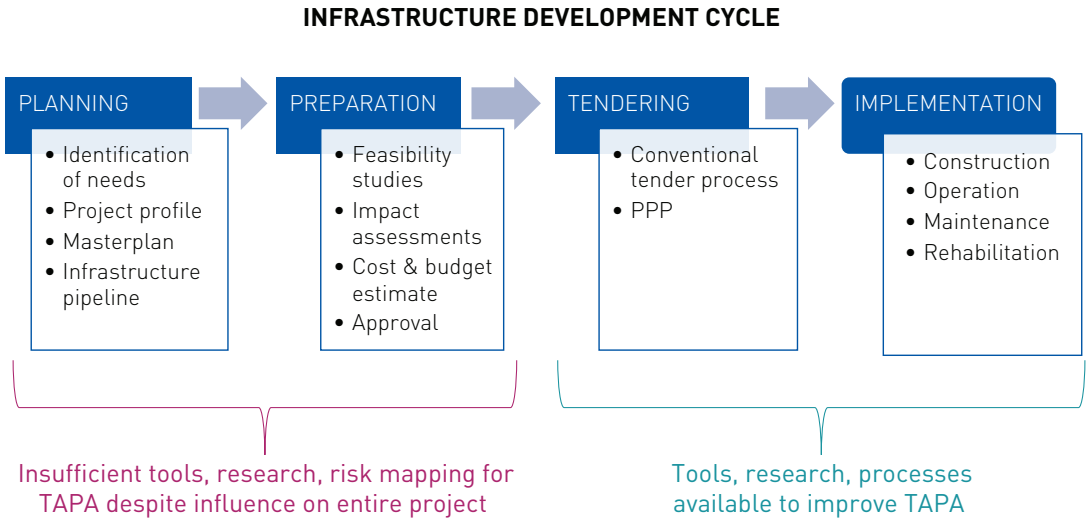
IDB

asymmetries of information, create opportunities for corruption and mismanagement to flourish. The institutional fragmentation of the water sector, with responsibility for projects falling across multiple government entities depending on water use, further weakens accountability.

A gap in addressing integrity risks in early stage infrastructure development

There are many tools and approaches to identify and limit integrity risks in tendering and construction. Far less attention has been paid to ensuring integrity in early-stage planning even though issues in these phases directly influence whether a project is viable, appropriate and sustainable. Transparency and accountability in early phases of decision-making and planning are essential to balance multiple interests and technological options, stop rent-seeking behaviour, ensure adequate environmental protections, safeguard communities' water rights and needs, and provide quality and accessible services to the most vulnerable.

FIGURE 1. ADDRESSING TRANSPARENCY, ACCOUNTABILITY, PARTICIPATION, AND ANTI-CORRUPTION (TAPA) IN THE INFRASTRUCTURE DEVELOPMENT CYCLE



In response to this challenge, the Water Integrity Network (WIN) and the Infrastructure Transparency Initiative (CoST), with support from the Inter-American Development Bank, developed a Framework for Integrity in Infrastructure Planning (FIIP). The framework – including indicators, data points, and data collection templates – is designed to enable government officials, civil society, and policymakers to flag unusual patterns in early phases of water and climate adaptation infrastructure development. The ultimate aim is to improve infrastructure planning and preparation by limiting undue influence and biased decision-making, to ensure the effective use of financial resources and achieve the policy objectives of government, including SDG 6.1 and 6.2.

PROJECT APPROACH

Mapping integrity risks in early stage development

The initial step of the project was to map and analyse common integrity risks of water infrastructure development (Figure 2 illustrates a few examples of known risks related to integrity and its principles: Transparency, Accountability, Participation, and Anti-Corruption). The team then developed specific indicators and associated data points to measure concrete, directly observable red flags in early decision-making and planning processes of water projects.

FIGURE 2. EXAMPLES OF KEY INTEGRITY RISKS IDENTIFIED IN PLANNING FOR WATER INFRASTRUCTURE PROJECTS

NOT FOLLOWED PROCESS Irrigation systems in Guatemala were developed without feasibility studies, leading to unjustified higher prices.	**INADEQUATE DESIGN** Design that did not account for climate change impact resulted in projects that became non-operational in Malawi.	**UNDUE INFLUENCE IN SITING** Wastewater plant in Bangkok was never built due to fraud in land acquisition, leaving discharged industrial wastewater still untreated.
INADEQUATE DATA Drinking water systems in El Salvador planned based on old census failed to meet the needs of the population	**LACK OF PARTICIPATION** A flood relief and water storage project in Thailand built without community consultation, led to problematic resettlement plans and substantial ecosystem destruction.	**POOR PLANNING** Because of land acquisition issues, the storage reservoir of Mabira dam in Uganda lost almost half of its initial planned capacity.

Source: WIN and CoST.

The indicators and data points relate to the sector's characteristics and the key challenges identified in the early stages of infrastructure development, including strategic planning, screening and appraisal, and budgeting and approval. The specific risk categories addressed include:

- Undue influence in decision-making: project selection driven by private and political interests or self-enrichment;
- Non-accountable decision-making: leaving room for private and political capture in selecting and allocating infrastructure projects;
- Unmanaged conflict of interest: leaving room for project selection and allocation based on political and personal loyalties;
- Priority misalignment: approval of projects not considering interests of the greater good
- Misuse of public funds: identifying and selecting uneconomical, high-value and "white elephant"[3] projects;
- Biased preparation processes: analysis of the project's needs, suitability and feasibility biased by personal benefits or interests, including the use of false or manipulated data to influence decision-making;

[3] A "white elephant" is a name given to projects that are expensive to build and maintain but of little to no-use.

- Biased or manipulated budget processes: unrealistic or falsified budget estimates that misrepresent project costs and expenditures. Also approval of budgets outside appropriate proceedings and controls, including projects approved with incomplete implementation, operation and maintenance budgets.

Proxy indicators were set for each risk category (11 indicators in total: project beneficiaries, project location, project timing of approval, vetting systems in place, engagement processes, environmental and social impact, project feasibility, policy transparency, project scope, project value and budget allocation) . Specific data points were then developed for all indicators (33 in total), considering information normally available during infrastructure development and collected by procuring entities. A disclosure template was developed to identify the data points connected to each indicator.

Piloting a new data framework for integrity in infrastructure planning

The second step of the project was to pilot the data points in one country in Latin America *to test their feasibility, reliability and relevance*. The pilot focused on large infrastructure projects, given the higher opportunities for corruption that they involve. The disclosure template was piloted for a sample of 10 projects, which allowed the procuring entity to concentrate on data collection efforts and dedicate enough time and resources to understand and complete the disclosure process. The sample included projects with different funding options and at different stages in the development cycle.

To test for feasibility, the pilot focused on availability and accessibility of the information. It assessed whether the procuring entity had the requested information and how difficult and expensive it would be to generate this data over time, particularly for large projects. *To test for reliability*, the pilot assessed whether the information disclosed was consistent with information available on other data portals where public procurement information was also published. Finally, *to test for relevance*, the team checked whether the indicators and associated data points captured the risks they intended to clarify and if they were meaningful as integrity proxies.

To reduce subjectivity of the assessment, a validation meeting with the procuring entity was used to evaluate if the proposed data points helped to identify anomalous patterns and grey areas in planning and decision-making.

The pilot revealed that:

- Data on beneficiaries of planned infrastructure/investment was not segmented. It was therefore not possible to identify the portion of the project's beneficiary population with more urgent needs (whether they live under USD 5/day, in informal settlements or/and are unserved). The procuring entity indicated that having this additional information on the profile of the beneficiaries would be useful to prioritise needs. However, this would entail changing their internal systems.
- There was significant variation in the average cost per beneficiary of different investments. The discrepancies could indicate a red flag for further investigation but require more information. Indeed, they could be pointing at inflated costs and unreasonable decisions disguised in technicalities, but they could also be simply explained by differences in projects' installed capacity.
- Location was used to triangulate data related to the user population. It showed that the poorest locations, where unserved indigenous groups are established,

have not been prioritised, even though they rank high and medium-high in the no-drinking water risk.[4]

During the validation meeting, the procuring entity explained that economic reasons do play a role in decision making, as the sustainability of water services depends on the payment of tariffs by users. Because the proposed data points make these political choices more explicit, they can help policy makers and citizens see more clearly the trade-offs between cost recovery and social equity in relation to water infrastructure investment.

- Information on engagement processes that occur prior to the tender process was not collected. Only meetings involving interested bidders, as well as clarification requests presented by bidders, were on official records. The lack of information and transparency related to engagement prior to tendering creates a grey area for unregulated lobbying activities to take place and for potential bias in decision-making. The risk is amplified since conflict-of-interest checks are not conducted during the preparatory stages.
- The project approval system did not include an environmental and social impact assessment before projects received funding. Projects were included on the institution's plan based on a profile analysis that only included general information and did not go deeper on potential impacts of projects on local populations and the environment. The same challenge was identified in relation to information concerning gender and social inclusion assessments which are not part of the planning processes. By highlighting the need for environmental, climate and social considerations during appraisal, the data points can make it possible to flag instances where planning is incomplete.

Useful data points to ask the rights questions and prompt further investigations or improvements

The pilot revealed that the Framework for Integrity in Infrastructure Planning (FIIP) can provide valuable insights to improve the robustness of water infrastructure planning processes. The identification of red flags does not automatically mean that corruption is present. It does, however, point to areas that require further investigation or procedural and policy improvements. By emphasizing these weaknesses and the potential integrity issues that could arise, the data points can support stakeholders in 'asking the right questions' when it comes to project development and questionable investment allocation decisions. The data points can also provide insight on potential trade-offs being made between social equity and service affordability.

LESSONS LEARNED

Infrastructure planning requires rigour, participation, and strict vetting systems

- A stronger focus is needed on feasibility studies, as well as gender, inclusion and climate assessments in the planning phases of water infrastructure projects, to adequately address potential economic, environmental and social impacts;

[4] Data point developed by the Aqueduct Water Risk Atlas. Available here: https://www.wri.org/applications/aqueduct/water-risk-atlas/#/?advanced=false&basemap=hydro&indicator=w_awr_def_tot_cat&lat=43.45291889355465&lng=-40.60546875000001&mapMode=view&month=1&opacity=0.5&ponderation=DEF&predefined=false&projection=absolute&scenario=optimistic&scope=baseline&threshold&timeSca

- Implementing vetting systems at the appraisal stage can help to check unregulated lobbying and influencing prior to the tender process.
- Breaking down project budgets clearly can limit biased decisions and reduce risks for future operation of infrastructure assets.
- Implementing a broad consultation process at the planning stage can help develop a culture of participation and strengthen project designs.

Better input data is essential and should be made available more readily

- A standardised set of data points listing information expected for assessment during the planning and decision-making process can bring rigour to the preparatory processes and support the identification of red flags, greatly assisting in developing a strong portfolio of projects.
- With more clarity about where similar assets are located (such as water treatment works or pipelines) decision-makers can explore synergies and encourage a coordinated view of infrastructure development, also engaging with different authorities in charge of water infrastructure or other sectors with assets that have an impact on water.
- Data on the socio-economic characteristics of the beneficiary population, as well as the location of projects, can facilitate prioritisation and allow for more targeted decisions, long-term financial sustainability of projects, and opportunities to improve accountability. The data points can also help policy makers see more clearly the trade-offs between economic sustainability and social equity in the sector.
- Having the means to collect and analyse data on project location, socio-economic factors, as well as participation from stakeholders, can ensure infrastructure addresses real needs more effectively.

Greater transparency in early stage decision-making can result in better use of limited resources in water infrastructure

- Although the data points cannot control for all variables, they raise key red flags that allow both internal and external stakeholders, such as water users and civil society, to compare similar projects and to ask questions. They also help identify when project planning may have been opaque and thus support stakeholders to ask for clarification and accountability.
- Combining different data points adds a layer of objectivity to evaluating decision-making processes.

The development and testing of the Framework for Integrity in Infrastructure Planning (FIIP) by WIN, CoST and the IDB has shown the value of focusing on integrity red flags in the early planning processes for water infrastructure. A second pilot test is in preparation, with the intention of refining FIIP further. WIN and partners will then promote the framework for use in the water sector globally.

ANNEX

Risks	Data points
Undue influence in decision-making	**1.Project Beneficiaries**
	1.1 Number of beneficiaries
	1.2. % of the beneficiary population living under USD 5/day
	1.3. % of the beneficiary population living in informal settlements
	1.4. % of unserved population to be served by the project
	2. Project Location
	2.1. % of multidimensional poverty
	2.2. Water stress level
	2.3. Drought risk
	2.4. No-drinking water risk
	2.5. Distance to a similar facility
	3. Project Timing
	3.1. Funding approval date
	3.2 Project authorisation date
	3.3. Construction start date
	3.4. Non-compliance with stipulated tender periods
	3.5. New or previous government investment
Non-accountable decision-making	**4.Engagement processes**
	4.1. Lobbying transparency
	4.2. Public consultation meetings
	4.3. Access to information requests
	4.4. Responses to access to information requests
	5. Environmental and Social Impact
	5.1. Environmental impact category
	5.2. Climate measures
	5.3. Inclusive design and implementation
Unmanaged conflict of interest	**6. Vetting Systems**
	6.1. Individuals involved in project funding approval
	6.2. Conflict-of-interests in project funding approval
	6.3. Ownership structure in project funding approval
Biased preparation processes	**7. Project feasibility**
	7.1. Alternative project analysis
	7.2. Cost-benefit analysis
	7.3. External appraisal
	7.4. Needs assessment
	7.5. Asset lifetime
Priority misalignment	**8. Policy coherence**
	8.1. Project part of a public investment plan
	9. Project scope
	9.1. New or pre-existing infrastructure
Misuse of public funds	**10. Project value**
	10.1. Project size (large projects - above US$ 7 million, or medium and small-sized - below US$ 7 million)
Biased or manipulated budget processes	**11.Budget allocation**
	11.1. Budget for prepration, construction, operation and maintenance