Integrity Tool
Methodology Guide

FRAMEWORK FOR INTEGRITY IN INFRASTRUCTURE PLANNING
(FIIP)

Indicator framework and data standard to diagnose and fix water infrastructure planning weaknesses.

WATER AND
SANITATION
INTEGRITY
TOOLS

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March 2025

The Water Integrity Network (WIN) is an international research and advocacy organisation, working jointly with a global network of partners in the water and anti-corruption sectors. WIN focuses on training for integrity and risk prevention in water and sanitation programmes and institutions worldwide. The aim is to make sure water, and water governance, are clean, just, and accessible, for all.

https://www.waterintegritynetwork.net

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Photo: Joost Butenop– WIN photo competition entry 2009, Water supply for refugee camp in Pakistan

1 BACKGROUND

Poorly planned, designed or constructed infrastructure has long-term negative consequences—social, financial, environmental, and economic. Vulnerable communities, who have limited access to water and sanitation services[1], 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.

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[1] 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-forpeople-living-in-poverty.pdf.

Systemic weaknesses in the way that infrastructure is planned, appraised and approved, along with complex supply chains, sector technicalities, and 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.

There are many tools and approaches to identify and limit integrity risks in tendering and construction[2]. 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.

In response to this challenge, the Water Integrity Network (WIN), in collaboration with the Infrastructure Transparency Initiative (CoST) and with support from the Inter-American Development Bank, developed a Framework for Integrity in Infrastructure Planning (FIIP). The framework (which includes indicators, data points, and a data collection template) is designed to enable government officials, civil society, and policymakers to flag unusual patterns in early phases of water 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.

The development of the framework included the mapping and analysis of common integrity risks of water infrastructure development, and the creation of specific indicators and associated data points to measure concrete, directly observable red flags in early decision-making and planning processes of water projects. Finally, the framework was applied and refined in two pilot projects with national and municipal entities tasked with developing and maintaining water infrastructure.

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[2] Examples include open contracting, integrity pacts, surprise audits, corruption reporting hotlines, codes of conduct, debarring procedures for corrupt entities, among others (Sohail, M., Cavill, S. (2006). Combating corruption in infrastructure services: a toolkit. Draft Version 1. WEDC, Loughborough University, UK).

Photo: Toluwani Eniola – Abandoned pipes – Rimi Nigeria, WIN photo competition entry 2016

2   STAKEHOLDERS INVOLVED

2.1   Who is FIIP for?

The FIIP is an assessment made for procuring entities in the water sector who are tasked with planning, financing, and developing water-related infrastructure. Depending on the context, undertaking a FIIP process could be relevant for the following actors:

- Donors and Development Agencies: These stakeholders may find value in using the FIIP to ensure that financial resources are allocated to projects that are serving intended objectives and that meet integrity and transparency standards, reducing risks of corruption and inefficiency.
- Utilities and Service Providers: These entities can apply the FIIP to strengthen internal governance, improve project planning, and enhance service delivery.
- Regulators and Government Agencies: The FIIP can support regulatory bodies or other national/sub-national entities in assessing infrastructure planning and identifying red flags that may indicate undue influence or mismanagement.
- Civil Society Organizations and Watchdog Groups: These stakeholders can use the FIIP to advocate for greater transparency in public investments and hold decision-makers accountable.
- Private Sector and Investors: Companies involved in infrastructure financing or development can leverage the FIIP to assess project effectiveness and to mitigate integrity risks.

2.2   Applying FIIP, who does what?

The successful application of the FIIP is based on the close collaboration between two key groups: a team from the procuring entity responsible for the disclosure exercise, and a team of reviewers. It is important to have a team of reviewers to guide the process, analyse and verify the information provided by the procuring entity, and advise the procuring entity on next steps. For clarity and ease of reference, these groups are referred to as the Disclosure Team (from the procuring entity) and the Reviewer Team.

The implementation of the FIIP may vary depending on the structure and leadership of the initiative. The following models outline possible configurations of stakeholder roles:

Externally Led Model

International donors, NGOs, or external oversight bodies that are working to identify integrity risks in infrastructure planning and improve governance may typically initiate this model. Likely introduced through funding agreements, external audits, or partnerships between donors/NGOs and governments, it includes:

- Leading Entity: An independent organization, such as an NGO, international donor, or research institution, oversees the FIIP process.
- Disclosure Team: The procuring entity's internal team provides necessary project information and documentation.
- Reviewer Team: Composed of external integrity experts, development partners, and possibly civil society representatives, who analyse and verify the disclosed data.

In-House Model

This model would typically be driven by the procuring entity seeking to improve internal processes, build long-term integrity mechanisms within the organization, and mitigate corruption risks. Likely introduced through internal reform initiatives, regulatory requirements, or corporate governance improvements, it includes:

- Leading Entity: The utility or service provider integrates the FIIP as part of its internal planning and governance framework.
- Disclosure Team: Internal staff members from planning, finance, and procurement departments take responsibility for data collection and reporting.
- Reviewer Team: Internal audit and compliance units within the organization ensure data integrity, with periodic external validation by regulatory authorities or independent experts.

Government Led Model

This model may include a combination of procuring entities, public institutions, donors, and civil society organizations recognizing the need for shared oversight in infrastructure planning. Likely initiated through multi-stakeholder agreements, national integrity initiatives, or as part of donor-government partnerships, it includes:

- Leading Entity: A partnership between government agencies, utilities, and external experts leads the process.
- Disclosure Team: A mix of internal and external participants work together to gather and disclose data.
- Reviewer Team: Independent reviewers, alongside government oversight bodies, conduct evaluations to ensure transparency and accountability.

3   FRAMEWORK

FIIP includes the following risk categories, indicators, and specific data points to be collected by the Disclosure Team and assessed by the Reviewer Team.

Table 1: Risk Categories, Indicators and Data Points

Risks	Indicators and 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 at project location
	2.2. Water stress level (based on the Aqueduct Water Risk Atlas)
	2.3. Drought risk (based on the Aqueduct Water Risk Atlas)
	2.4. No-drinking water risk (based on the Aqueduct Water Risk Atlas)
	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, unmanaged conflict of interest	**4. Engagement processes**
	4.1. Lobbying transparency
	4.2. Public consultation meetings
	4.3. Freedom of information requests presented in relation to the project
	4.4. Responses to freedom of information requests
	5. Vetting Systems
	5.1. Individuals involved in project funding approval
	5.2. Conflict-of-interests in project funding approval
	5.3. Beneficial ownership transparency in project funding approval
Biased preparation processes	**6. Environmental and Social Impact**
	6.1. Environmental and social impact assessment
	6.2. Environmental impact category
	6.3. Climate adapted design

	6.4 Gender responsive and inclusive design
	7. Project feasibility
	7.1. Project brief or feasibility study
	7.2 Alternative project analysis
	7.3. Cost-benefit analysis
	7.4. External appraisal
	7.5. Needs assessment
	7.6. Expected lifetime of the asset
Priority misalignment	**8. Policy coherence**
	8.1. Project part of a public investment plan (it can be a national, local or a strategic urban plan)
	9. Project scope
	9.1. New or pre-existing infrastructure
Misuse of public funds	**10. Project amount**
	10.1. Project size (large, medium or small-sized)
Biased or manipulated budget processes	**11. Budget allocation**
	11.1. Budget allocation breakdown (implementation, operation and maintenance)

Photo: Sourav Karmakar – Disrupted water supply in Mathura, India, WIN photo competition entry 2020

4   STEPS IN APPLYING FIIP

An application of FIIP has the following basic steps, with innovations and adaptations to the local context welcome:

4.1   Preparation

Commitment of procuring entity:

After an interested procuring entity has been identified, an introduction to the FIIP is necessary. A meeting is set up between the procuring entity and the leading organisation to outline the FIIP's value as a tool to improve planning and integrity. Some background research may need to be conducted on the country context, role of the procuring entity, etc. in order to adequately position the tool's value.

Induction session with Disclosure Team:

This session is critical for building a strong foundation, ensuring that all participants understand the objectives, methodology, key indicators, and data points being used. The session includes going over the data points that the Disclosure Team collects and discloses. During the session, any language or content issues are clarified so that there is a common expectation for the type of information being disclosed. It is also

important in this session to clarify how the results of the disclosure exercise are used and to what extent the findings are made available to other stakeholders (e.g., the project funder).

Agreement on project sample:

The recommendation is to prioritise urban water projects that are classified as "large" under the applicable regulations or established practices of the country/region, as these tend to present higher corruption risks.3 The sample ideally includes both ongoing and completed projects, with ongoing projects at least in the tendering phase in order to have enough information to sufficiently respond to the data points. It is also essential to cover projects funded by a combination of government budgets and international donors, to offer a full perspective on different funding sources and their impact on project integrity. A good sample size is between 10 to 12 projects.

4.2   Data Disclosure and Analysis

Pilot disclosure for project 1:

Once the sample is confirmed, the data disclosure begins, preferably with one project as a pilot. This approach allows the Disclosure Team to familiarise themselves with the FIIP disclosure template and identify any necessary clarifications or challenges before rolling out the framework to the entire sample.

Review meeting:

After completing the disclosure for the pilot project, a review meeting is recommended (either online or in-person) to go over the submitted disclosure template sheet. The goal is to clarify any outstanding questions, address missing data, and guide the Disclosure Team in completing or amending the information that was submitted.

Roll-out of disclosure process to full sample:

The Disclosure Team can then proceed with the disclosure process for the rest of the sample. A separate excel sheet in the disclosure template is created for each sample project to systematically disclose the relevant information. This approach will ensure that data is organised by project, making it easier to analyse and compare the information provided.

It is advisable to ensure regular check-ins and meetings between the Reviewer Team and the Disclosure Team throughout this process in order to provide support, answer questions, and/or to clarify doubts in completing the disclosure template and the information that must be provided.

Data submission:

The Disclosure Team submits the completed disclosure template to the Reviewer Team, including links to publicly available information. If the information exists but is

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[3] U4 Helpdesk Answer. (n.d.). Overview of corruption and anti-corruption in infrastructure development. U4 Anti-Corruption Resource Centre. https://www.u4.no/publications/overview-of-corruption-and-anti-corruption-in-infrastructure-development/fullversion#background-on-corruption-in-infrastructure

unpublished, the Disclosure Team provides or sends the relevant documents directly to the Reviewer Team. In cases where information does not exist, this is explicitly noted in the template.

Review:

The Reviewer Team undertakes the analysis of the disclosure template, including the documentation referenced and submitted. The analysis is guided by the risk categories in Table 1 to detect red flags revealed by the data. These may include inconsistencies, gaps, or anomalies in the information provided.

Additionally, the Reviewer Team considers political economy factors, as these influence both the context of the data and the interpretation of findings. Assessing the broader political and institutional environment provides a deeper understanding of the factors shaping the data and its implications. Distilling the information into clear narratives highlighting themes and patterns (or data storytelling) is a useful approach to communicate the findings in a way that resonates with stakeholders.

4.3   Validation and Recommendations

Validation meeting:

This meeting includes not only the Disclosure Team but also other relevant stakeholders involved in project planning, within the procuring entity and potentially beyond (e.g., project funders, relevant colleagues from the implementing organisation, etc.). The validation meeting is conducted either virtually or in person and serves as a platform to discuss the findings and insights gathered during the disclosure process. The following questions can help guide the discussion:

- What were the challenges encountered during the disclosure exercise?
- Do the data points shed light on critical integrity points in decision-making and planning?
- Have relevant risk areas been covered?
- Could the data disclosure exercise become a standard practice for data collection and disclosure for the procuring entity?

In addition to addressing the questions outlined above, the Reviewer Team raises the red flags, insights, and findings uncovered during the analysis. This provides an opportunity to engage with the procuring entity on key results, including gaps in the information provided, areas lacking clarity, and potential inconsistencies in decision-making and planning processes.

Developing an action plan focused on key areas where enhanced transparency or more structured processes for data disclosure can be implemented is recommended. Establishing a clear timeline for the adoption of these measures helps maintain momentum and ensures progress following the validation meeting. The possibility of technical assistance to support the implementation of the action plan can be discussed if the procuring entity demonstrates genuine commitment to adopting the proposed recommendations and using the data points.

Submission of summary report:

The Reviewer Team drafts a summary report based on the findings and discussions. The report should highlight areas to enhance the entity's planning, decision-making, and transparency practices.

ANNEX 1: DISCLOSURE TEMPLATE

For access to the full disclosure template (excel file), please contact the WIN team at info@win-s.org.

#	Indicator	Data Point	Disclosure format Provide information and supporting documentation
1	Project beneficiaries	1.1 Number of beneficiaries	Indicate the number of direct project beneficiaries (e.g. "5,000 direct beneficiaries from the construction of the water supply system"). Beneficiaries are those who benefit directly from the project; they are the target group of the infrastructure project, and their needs are addressed by the intervention. If the information was not used during project appraisal, use the option "data not considered in project appraisal".
		1.2. % of the beneficiary population living under USD 5/day	Indicate the percentage of the beneficiary population that lives under the threshold of USD 5/day (e.g. "50%"). If the information was not used during project appraisal, use the option "data not considered in project appraisal".
		1.3. % of the beneficiary population living in informal settlements	Indicate the percentage of the beneficiary population that lives in informal settlement (e.g. "50%"). If the information was not used during project appraisal, use the option "data not considered in project appraisal.
		1.4. % of unserved population to be served by the project	Indicate the percentage of unserved population to be served by the project (e.g. "0.2%"). If the information was not used during project appraisal, use the option "data not considered in project appraisal.
2	Project location	2.1. % of multidimensional poverty at the project location	Indicate the percentage of poverty in the province/district where the project is developed. Use the latest Multidimensional poverty index to identify the percentage.
		2.2. Water stress level at project location (based on the Aqueduct Water Risk Atlas)	Identify the water stress level recorded at the project location (e.g. "Low", "Low-Medium", "Medium-High", "High" and "Extremely High"). Use the Aqueduct Water Risk Atlas to identify the stress level by entering the project location/ coordinates.
		2.3 Drought risk (based on the Aqueduct Water Risk Atlas)	Identify the drought risk level recorded at the project location (e.g. "Low", "Low-Medium", "Medium-High", "High" and "Extremely High"). Use the Aqueduct Water Risk Atlas to identify the stress level by entering the project location/coordinates.
		2.4. No-drinking water risk (based on the	Identify the no-drinking water risk recorded at the project location (e.g. "Low", "Low-Medium",

		Aqueduct Water Risk Atlas)	"Medium-High", "High" and "Extremely High"). Use the Aqueduct Water Risk Atlas to identify the stress level by entering the project location/coordinates.
		2.5. Distance to a similar facility	Identify the distance (in kilometres) to a similar infrastructure facility (e.g. "100 km"). Googlemaps and Google Earth can support the identification of similar facilities in the project vicinities.
3	Project timing	3.1. Funding approval date	Disclose the date the project's funding was approved and resources were assigned or reserved: [date]. (E.g. "12 June 2022").
		3.2. Project authorisation date	Disclose the date the project received a go-ahead order authorising initiation: [date]. (E.g. "12 June 2022").
		3.3. Construction start date	Disclose the date the construction works started: [date]. (E.g. "12 June 2022").
		3.4. Non-compliance with stipulated tender periods	Disclose instances of non-compliance with the procurement law in relation to bid submission, bid evaluation and contract award. If no delays exist, please select "not applicable". - bid submission date: [total delayed days] or [not applicable] - bid evaluation: [total delayed days] or [not applicable] - contract award: [total delayed days] or [not applicable]
		3.5. New or previous government investment	Identify whether the project relates to a new investment or an investment carried out from a previous government or administration.
4	Engagement processes	4.1. Lobbying transparency	Disclose the occurrence of meetings with interested groups regarding the project during project appraisal and planning, including the number of the participants, dates and location of these meetings and disclosing the corresponding meetings minutes. If the type of information is not recorded, please select "no records available". If no meetings occurred, please select "not applicable".
		4.2. Public consultation meetings	Disclose the occurrence of public meetings with communities, experts and other impacted groups regarding the project during project appraisal and planning, including the number of the participants, dates and location of these meetings and disclosing the corresponding meetings minutes. If the type of information is not recorded, please select "no records available". If no meetings occurred, please select "not applicable".
		4.3. Freedom of information requests	Disclose Freedom of Information requests that have been presented in relation to the project [number and document]. If the type of information

		presented in relation to the project	is not recorded, please select "information not recorded". If no Freedom of Information requests have been presented, please select "not applicable".
		4.4. Responses to freedom of information requests	Disclose the responses provided by authorities to Freedom of Information requests related to the project [number and document]. If the type of information is not recorded, please select "information not recorded". If no Freedom of Information answers have been presented, please select "not applicable".
5	Vetting Systems	5.1. Individuals involved in project funding approval	Identify the individuals involved in instances of project funding approval (e.g. specify name and role). These are normally officials within the procuring entity or public financing bodies in charge of deciding whether a project receives funding or not. If the type of information is not available, please explain the reasons why there is no clarity on project approval roles.
		5.2. Conflict-of-interests in project funding approval	Clarify whether individuals involved in instances of project funding approval have been subject to conflict-of-interest verification, and the results obtained (e.g. "a conflict was raised in relation to stakeholder XX due to family ties with the mayor of the city where the project is proposed"). If the type of information is not recorded, please select "information not recorded". If no verification was developed, please select "no verification carried out". If no conflict emerged, please select "no conflict emerged".
		5.3. Beneficial ownership transparency in project funding approval	Disclose information on the registration of companies owned by individuals involved in instances of funding approval. If the type of information is not recorded, please select "information not recorded".
6	Environmental and social impact	6.1. Environmental and social impact assessment	Clarify whether and when the project conducted an environmental and social impact assessment, providing a copy of the assessment. If the assessment was not developed, please select "not applicable".
		6.2. Environmental impact category	Indicate the environmental and social categorisation that reflects the magnitude of project risks and impacts. Consider the following categorisation to rate the project: - Category A: projects with potential significant adverse environmental or social risks and/or impacts that are diverse, irreversible, or unprecedented. - Category B: projects with potential limited

			adverse environmental or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures. – Category C: projects with minimal or no adverse environmental or social risks and/or impacts.
		6.3. Climate adapted design	Clarify whether the project design considered the impact of climate change (e.g. "given frequent droughts in the region, the project uses solar energy to avoid reliance on water levels of local reservoirs"). If climate impact was not considered during the project appraisal, use the option "data not considered in project appraisal".
		6.4. Gender responsive and inclusive design	Clarify whether there was an assessment of the project impact on women and vulnerable populations (e.g. "the new wells are located within a close range to the village, providing a safe route for women and girls to obtain water for their households"). If gender and inclusion were not considered during project appraisal, use the option "data not considered in project appraisal".
7	Project feasibility	7.1. Project brief or feasibility study	Clarify whether and when the project conducted a Project brief of Feasibility study, which includes documentation on net benefits or costs of the proposed goods, works or services, providing a copy of the study. If the document was not developed, please select "not applicable".
		7.2. Alternative project analysis	Clarify whether and when the project conducted an Alternative project analysis which is a technical examination to assess and compare various solutions to meet the project objectives, normally including comparison of locations and engineering designs, providing a copy of the analysis. If the document was not developed, please select "not applicable".
		7.3. Cost-benefit analysis	Clarify whether and when the project conducted a Cost-benefit analysis which is a technical assessment of the project's economic, environmental and social benefits, technical feasibility, social and economic costs, affordability and risks, providing a copy of the analysis. If the document was not developed, please select "not applicable".
		7.4. External appraisal	Clarify whether and when the project conducted an External appraisal which is a complete assurance review of the project by a technical body that is different from the proposing body, normally including analysis of site selection and project design, providing a copy of the appraisal. If the

			document was not developed, please select "not applicable".
		7.5. Needs assessment	Clarify whether and when the project conducted a Needs assessment which is a technical study to identify the need for a project that has been proposed or is under discussion, providing a copy of the assessment. It is developed so that projects respond to population needs and prioritise what is more important. If the document was not developed, please select "not applicable"
		7.6. Expected lifetime of the asset	Disclose the expected lifetime of the asset: [years] or option [data not considered in project appraisal].
8	Policy coherence	8.1. Project part of a public investment plan (it can be a national, local or a strategic urban plan)	Disclose documentation that evidences that the project is part of an approved public investment plan. It can be a national, local or a strategic plan. If the project is not part of any approved public investment plan, please select "not applicable".
9	Project scope	9.1. New or pre-existing infrastructure	Identify whether the project relates to the construction of a new infrastructure facility or the maintenance of a pre-existing facility.
10	Project amount	10.1. Project size (large, medium and small-sized)	Identify whether the project categorizes as large, medium or small. Assess the project size considering the applicable regulations or established practices in the given country.
11	Budget allocation	11.1. Budget allocation breakdown (implementation, operation and maintenance)	Specify the budget allocated to the implementation, operation and maintenance of the project (e.g. Implementation: [specify value], Operation: [specify value], Maintenance: [specify value]). In case there is no budget allocated for implementation, operation and maintenance costs, please select "not applicable" for each of the headings.