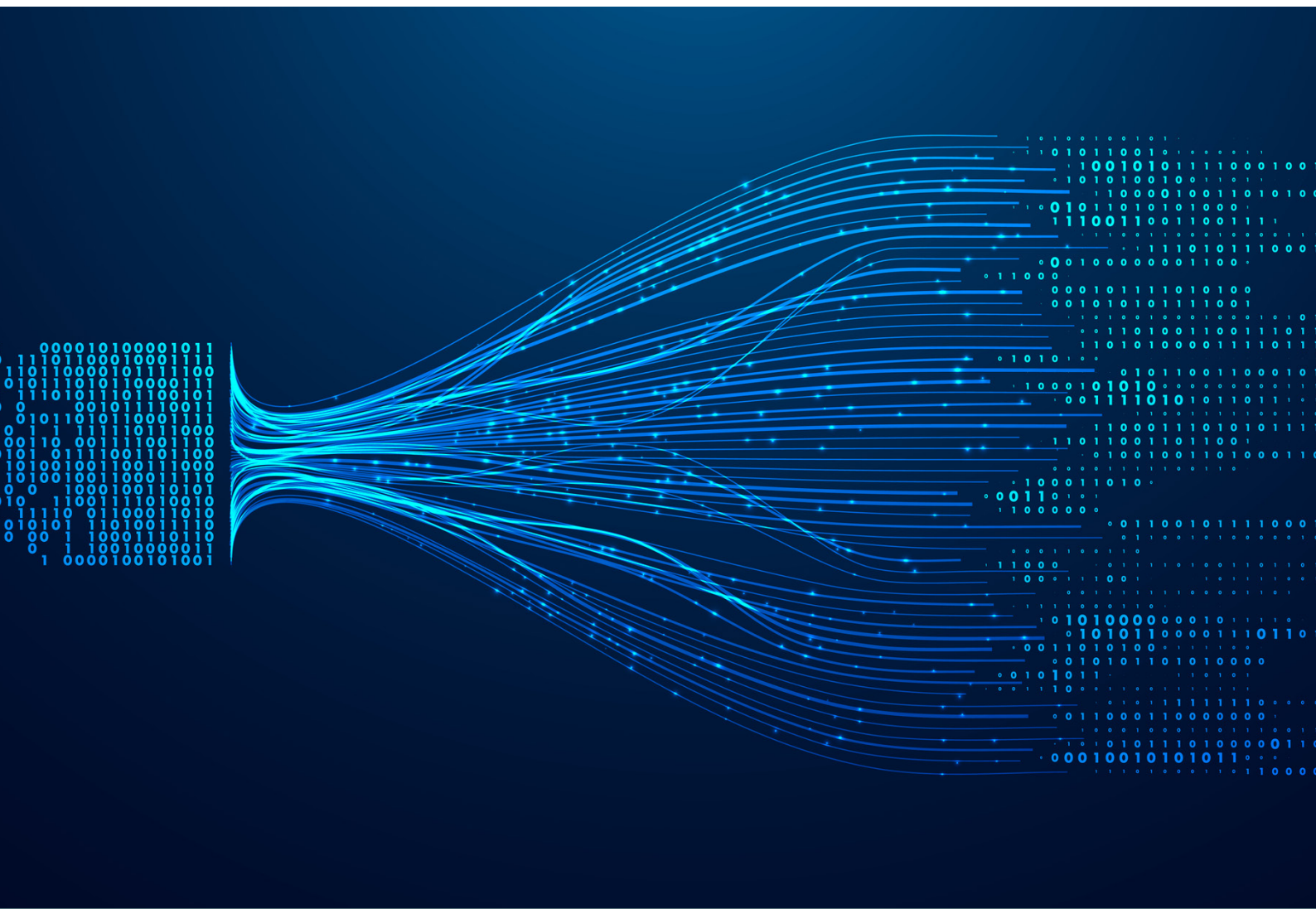


March 2026

DATA PUBLICATION MANUAL

A Guide to Infrastructure Data Standards
and Publication Practices



Abbreviations

CoST	CoST – the Infrastructure Transparency Initiative
CoST IDS	CoST Infrastructure Data Standard
OC4IDS	Open Contracting for Infrastructure Data Standard
OCDS	Open Contracting Data Standard
OCP	Open Contracting Partnership
ODS	Open Data Services
PPIAF	Public–Private Infrastructure Advisory Facility
PPP	Public–private partnership

Glossary

Building blocks: A structured set of related fields grouped together under a common template, used to capture complex or repeatable information in a consistent and standardised way.

Code lists: A schema field used to limit and standardise the possible values of the fields, in order to promote data interoperability. OC4IDS reuses some codelists from the Open Contracting Data Standard and its extensions.

Data: Raw, unprocessed facts that require context to be meaningful. When data is accessible, usable, and shareable by anyone, it is referred to as open data.

Data point: The singular form of data. The term data point is roughly equivalent to datum, a single fact that serves as the building block in data analysis.

Free text (string): A data field that allows users to enter information in their own words, within defined character limits, without predefined structure or fixed response options.

Information: Data that has been processed and organised to provide meaning and value.

Proactive publication: The disclosure of data and information at the initiative of the public body, without a request being filed and as part of a publication process.

Reactive disclosure: The disclosure of data and information in response to file requests.

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1 Introduction

1.1 CoST'S PURPOSE AND APPROACH

The purpose of CoST – the [Infrastructure Transparency Initiative](#) (CoST) is to contribute to improving performance in the procurement¹ of public infrastructure by identifying, highlighting, and helping address the risks of inefficiency, mismanagement, and corruption. Good performance in this regard means the achievement of value for money by procuring:

- **the right infrastructure** (requiring effective planning), through
- **fair processes** (requiring effective tender management), that deliver
- **infrastructure as contracted** (requiring effective contract administration), that results in
- **relevant service provision** (requiring effective stakeholder engagement)

In working towards its vision of quality infrastructure, stronger economies, and better lives, CoST enables a multi-stakeholder approach to the publication, validation, and use of infrastructure data. This improves transparency, participation, and accountability and contributes to the delivery of high-quality infrastructure that meets people's needs.

This approach finds practical expression through four pillars: data publication, independent review, multi-stakeholder working, and social accountability. These provide a global standard for enhancing infrastructure transparency and facilitating accountability. Whilst the standard is universally applied by CoST members in low-, medium-, and high-income countries, it is adapted to suit different political, economic, and social contexts.

a. Publication of data

It is the disclosure of data from infrastructure projects, i.e., making that data publicly available. Data is published by procuring entities at key stages throughout the entire project cycle in the [Open Contracting for Infrastructure Data Standard \(OC4IDS\)](#) or [CoST Infrastructure Data Standard \(CoST IDS\)](#) format. These ensure that data on the purpose, scope, costs, and execution of infrastructure projects is open and accessible to the public, and is published in a timely manner. Specified data points or 'elements' defined in these standards relate to the identification, preparation, completion, operations, maintenance, and decommissioning of projects, as well as the tender management and implementation stages of constituent projects.

b. Independent review²

This process validates the accuracy and completeness of the published data and turns it into compelling information, highlighting issues of concern and areas of good practice. It entails communicating issues both visually and in plain language. Making it easier for all stakeholders to be aware of what is happening strengthens accountability mechanisms and allows decision-makers to be held to account more readily.

c. Multi-stakeholder working

To be trusted by all parties, the above activities related to the publication of data and independent review must be seen to be independent. Multi-stakeholder working brings government, the private sector, and civil society together in a concerted effort to pursue the common goal of improving transparency and accountability in public infrastructure. This is typically achieved through a multi-stakeholder group (MSG)³ where each set of stakeholders has an equal voice in leading a CoST member following accepted principles. Decisions made by the MSG that are then implemented by a CoST member secretariat⁴.

d. Social accountability

Stakeholders such as the media and civil society play an important role in holding decision-makers to account. Social accountability refers to efforts to ensure that published data and independent review reports are taken up and used by stakeholders, especially civil society and the private sector, to strengthen accountability and deliver practical improvements. Building on the foundation laid by the publication of data and accountability, CoST can provide training in the most constructive and effective ways to use those resources.

¹ Procurement is not limited to tender management, but refers to the whole process of creating, managing, and fulfilling contracts. This is consistent with the CoST approach of taking an interest in all stages of contract and project cycle.

² This process was known previously as 'Assurance'.

³ In some circumstances, particularly in high-income countries, it may be possible for effective multi-stakeholder working to be achieved without the establishment of a tailor-made CoST MSG. However, for the purposes of this Manual, it is assumed that an MSG has been established.

⁴ Referred to in the remainder of this document as simply "the Secretariat". In contrast, the CoST International Secretariat is referred to as "the International Secretariat."

Some CoST members may at times choose to engage directly with intended beneficiaries rather than simply with relevant civil society organisations. This can further extend awareness of the results of the CoST independent review, while helping to clarify the effectiveness or otherwise of established systems and procedures for community engagement in project planning, preparation, and implementation.

1.2 PURPOSE AND STRUCTURE OF THIS MANUAL

The primary purpose of this manual is to provide guidance for designing and strengthening data publication processes that ensure the timely and reliable disclosure of data by public infrastructure procuring entities, both proactively and reactively.

A secondary objective is that the publication through a public channel complies with the CoST IDS or the OC4IDS, at the national or sub-national level, and that this becomes one of the main sources for anyone who wants to use the data. Such users may include contract monitors, journalists, oversight authorities, independent review professionals or teams applying the CoST Independent Review Manual (**Volume 1 and 2**) or the CoST [Infrastructure Transparency Index Manual](#).

This manual contains guidance and useful tools for anyone with an interest in or responsibility for the data publication process. However, it is primarily aimed at members of CoST secretariats and the multi-stakeholder groups that will support the design and implementation of publication processes in conjunction with procuring entities responsible for publishing data.

As illustrated in **Figure 1.1**, the structure of the manual mirrors the CoST data journey, progressing from the CoST IDS to the OC4IDS, including the sustainability, climate finance and water-related modules, to infrastructure analytical dashboards that support better data visualisation and insight.

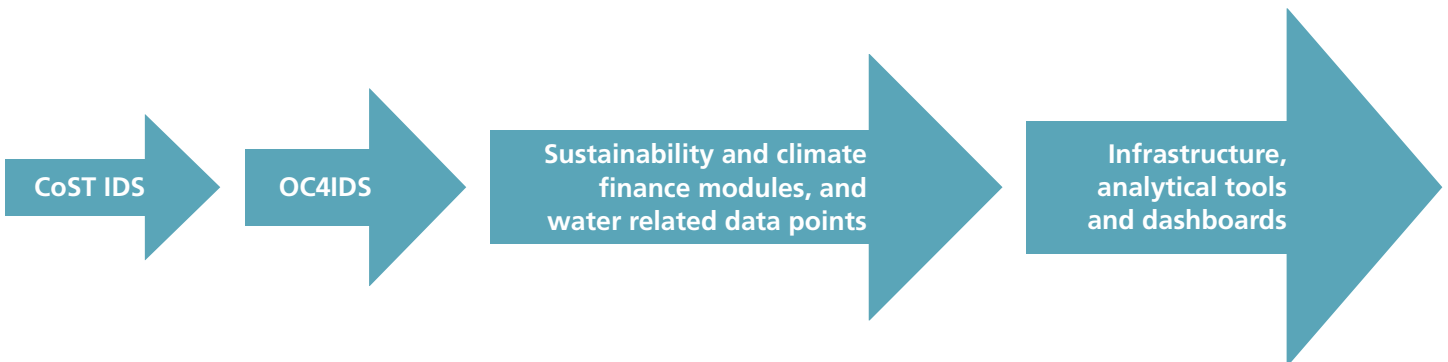


Figure 1.1 The CoST data journey

The following chapters provide a concise overview of the main components of the CoST data ecosystem. **Chapter 2** covers the CoST Infrastructure Data Standard (IDS), **Chapter 3** introduces the OC4IDS, and **Chapter 4** presents the sustainability and climate finance modules. **Chapter 5** focuses on water-related data points, while **Chapter 6** explores how data publication relates to other CoST pillars.

The chapters refer to various tools and resources described in the annexes. Publishing infrastructure data is not an end in itself; it enables scrutiny, learning, and accountability. This manual guides CoST members and procuring entities along their data journey, from basic data publication to more advanced open data use.

2 The CoST Infrastructure Data Standard

2.1 UNDERSTANDING THE COST INFRASTRUCTURE DATA STANDARD

The CoST Infrastructure Data Standard (CoST IDS) is a list of data and information that procuring entities should make available, both proactively and reactively, throughout the project life cycle.

Procuring entities are responsible for proactively publishing at least 40 data points, as set out in the CoST IDS (see **Table 2.1**). Proactive publication occurs regularly as a matter of 'business as usual' without the need for any requests for information from citizens or other stakeholders.

PROJECT STAGE	PROJECT-LEVEL DATA	PROCUREMENT STAGE	CONTRACT LEVEL DATA
Identification	1. Project reference number	Tender management and implementation	21. Procuring entity
	2. Project owner		22. Procuring entity contact details
3. Sector, subsector	23. Procurement process		
4. Project name	24. Number of firms tendering		
5. Project location	25. Cost estimate		
6. Purpose	26. Contract administration entity		
7. Project description	27. Contract type		
Preparation	8. Project scope (main output)		28. Contract title
	9. Environmental impact		29. Contract firm(s)
	10. Land and settlement impact		30. Contract price
	11. Contact details		31. Contract scope of work
	12. Funding sources		32. Contract start date
	13. Project budget		33. Contract duration
	14. Project budget approval date		34. Contract status (current)
Completion	15. Project status (current)	35. Variation to contract price	
	16. Completion cost (projected)	36. Escalation of contract price	
	17. Completion date (projected)	37. Variation to contract duration	
	18. Scope at completion (projected)	38. Variation to contract scope	
	19. Reasons for project changes	39. Reasons for price changes	
	20. Reference to audit and evaluation reports	40. Reasons for scope and duration changes	

Table 2.1 Project and contract data for proactive publication

Procuring entities are also responsible for reactively disclosing the 27 items of information set out in the list for reactive disclosure as identified in **Table 2.2**. Reactive disclosure means the provision or publication of information upon request. This list is not exhaustive, and additional information items not included may be added. If there is no legal or administrative mandate to disclose any of these information items reactively, it is important to explicitly agree with procuring entities on what they are willing to release into the public domain.

PROJECT STAGE	PROJECT-LEVEL INFORMATION	PROCUREMENT STAGE	CONTRACT LEVEL INFORMATION
Identification	<ol style="list-style-type: none"> 1. Project brief or feasibility study 2. Project officials and roles 	Tender management and implementation	<ol style="list-style-type: none"> 15. Contract officials and roles 16. Procurement method 17. Tender documents 18. Tender evaluation results 19. Project design report 20. Contract agreement and conditions 21. Registration and ownership of firms 22. Specifications and drawings 23. List of variations, changes, amendments 24. List of escalation approvals 25. Quality assurance reports 26. Disbursement records or payment certificates 27. Contract amendments
Preparation	<ol style="list-style-type: none"> 3. Multi-year programme and budget 4. Environmental and social impact assessment 5. Resettlement and compensation plan 6. Financial agreement 7. Procurement plan 8. Project approval decision 		
Completion	<ol style="list-style-type: none"> 9. Implementation progress reports 10. Budget amendment decision 11. Project completion report 12. Project evaluation report 13. Technical audit reports 14. Financial audit reports 		

Table 2.2 Project and contract data for reactive disclosure

2.1.1 Elements for publication per project stage

Figure 2.1 summarises the number of proactive and reactive elements recommended by the CoST IDS at the identification, preparation, and completion stages of a project, as well as at the tender management and contract implementation stages of the procurement of principal contracts.

It should be noted that, in some jurisdictions, not all data points may be available, or they may be recorded under different names. Furthermore, certain data points might be collected and published at stages different from those indicated above. Close coordination and agreement with procuring entities are essential to ensure that the IDS is adapted to the local context.

Different contracts may also contribute to a single project, so data points related to the tender management and implementation stages of contract procurement are therefore applicable to each such contract. These may include contracts related to planning, design, construction and supervision, or a combination of two or more of them. As illustrated in Figure 2.2, at least 20 data points should be proactively published for each contract in a project.

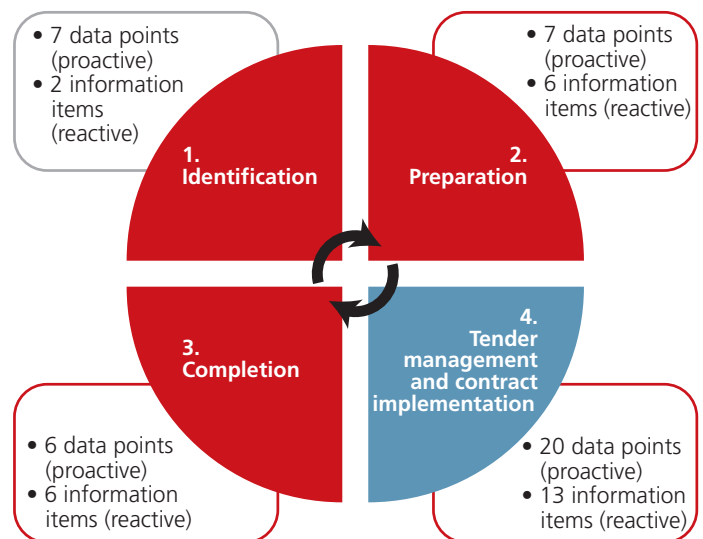


Figure 2.1 Data points and information items per project stage recommended by the CoST IDS

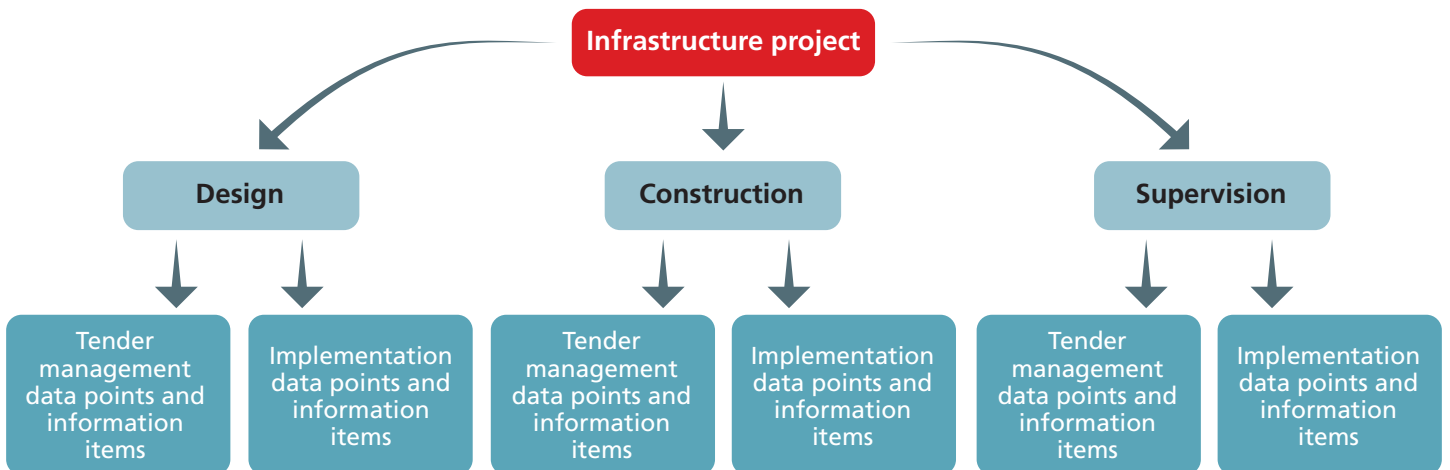


Figure 2.2 Basic contracts in an infrastructure project

The following sections provide brief definitions of each element included in the CoST IDS, with examples where applicable. The elements recommended for reactive disclosure are underlined>.

2.1.1.1 Project identification

Regarding project identification, the CoST IDS recommends disclosing nine elements, as shown in **Table 2.3** and explained below.

PROACTIVE	REACTIVE
a.1. Project reference number	a.8. Project officials and roles
a.2. Project owner	a.9. Project brief or feasibility study
a.3. Sector, subsector	
a.4. Project name	
a.5. Project Location	
a.6. Purpose	
a.7. Project description	

Table 2.3 Data and information to be made available during project identification

- **a.1. Project reference number:** local project identifier defined by the project owner (e.g. “HAM1J9-2017”).
- **a.2. Project owner:** name of the sponsoring public entity in charge of the project (e.g. “Ministry of Public Works”).
- **a.3. Sector, subsector:** select from a list of sectors relevant to the specific context, such as housing, transport, energy and water, with subsectors for each sector, so transport could be subdivided into national highway, local road, railway, port and airport (e.g. “Transport, railway”).
- **a.4. Project name:** specify the project name (e.g. “Catthorpe Viaduct Replacement”).
- **a.5. Project location:** briefly specify the location of the project (e.g. “At the intersection of the M1, M6 and A14 in Leicestershire, approx. 6 km from Rugby”).
- **a.6. Purpose:** specify the socio-economic purpose of the project (e.g. “Replacement of an existing structure that is in poor condition and which poses a risk to the highway network”).
- **a.7. Project description:** concise description and details of the project (e.g. “Demolish existing viaduct and complete detailed design, construct new viaduct, start works on site July 2017, open viaduct to traffic December 2018”).

- **a.8. Project officials and roles:** high-level officials managing the project and their role in the sponsoring public entity.
- **a.9. Project brief or feasibility study:** documentation carried out for the project, providing information on net benefits or costs of the proposed goods, works or services.

2.1.1.2 Project preparation

Regarding project preparation, the CoST IDS recommends disclosing 13 elements, as shown in **Table 2.4** and explained below.

PROACTIVE	REACTIVE
b.1. Project scope (main output)	b.8. Multi-year programme and budget
b.2. Environmental impact	b.9. Environmental and social impact assessment
b.3. Land and settlement impact	b.10. Resettlement and compensation plan
b.4. Contact details	b.11. Financial agreement
b.5. Funding sources	b.12. Procurement plan
b.6. Project budget	b.13. Project approval decision
b.7. Project budget approval date	

Table 2.4 Data and information to be made available during project preparation

- **b.1. Project scope:** main outputs from the project that are being taken forward into construction (type, quantity, unit) (e.g. “Upgrading of 48 km gravel road to bitumen standard. This includes the construction of four major bridges with a total length of 210 m, 16 box culverts ranging from 1.5 m x 2 m to 4 m x 4 m, installation of 3001 m of pipe culverts, 56 400 m³ of rock fill, and installation of road signs and road markings”).
- **b.2. Environmental impact:** briefly list the main environmental impacts and associated measures for this project and include any environmental impact category officially assigned. Impacts may be positive, negative, direct, indirect, or cumulative. Measures may include those that are aimed at prevention, mitigation, or compensation (e.g. “Category II: limited environmental and social impact due to upgrading of existing road alignment. Risks identified related to dust control and pollution of watercourses during construction, including at borrow pit and quarry locations and site safety during construction. Mitigation measures are set out in the environmental and social management plan, forming part of the contract. The environmental compliance manager appointed by the contractor to manage the implementation of this plan. The borrow pit reinstatement component includes a complementary intervention to convert one of the borrow pits into a safe water source for livestock”).
- **b.3. Land and settlement impact:** briefly state the amount of land and property, if any, that was acquired for the project, making reference where possible to any officially applicable standards that have been followed and to associated mitigation measures (e.g. “5 km² of land acquired. Key issues include the relocation of a burial site, the relocation of 40 households, and disruption to local businesses. Provisions of IFC Performance Standard 5 (Land Acquisition and Involuntary Resettlement - 2012) are included within the contract”).
- **b.4. Contact details:** postal and electronic address of the project owner (e.g. “Highways England, 3 Ridgeway, Quinton Business Park, Birmingham, B32 1AF, UK, info@highwaysengland.co.uk”).
- **b.5. Funding sources:** name the funding organisation(s) or sources of funding (e.g. “Department for Transport”).
- **b.6. Project budget:** specify the projected costs or allocated budget for the project (currency and amount). The budget includes land and property acquisition, environmental mitigation measures, health and safety provisions, client, consultant, and contractor costs, and value-added tax (e.g. “£20.8 million”).
- **b.7. Project budget approval date:** day, month, year the project budget was authorised (e.g. “17 January 2017”).
- **b.8. Multi-year programme and budget:** a detailed breakdown of the budget by period and/or participating funders.

- **b.9. Environmental and social impact assessment:** the precise scope, structure and style vary according to the standard adopted, but this typically documents assessments of environmental impacts, mitigation measures and social impacts for the project. Related health and safety assessment and provisions may also be included if not provided for elsewhere.
- **b.10. Resettlement and compensation plan:** documentation of the procedures followed and actions taken to mitigate adverse effects, compensate losses and provide development benefits to persons and communities otherwise adversely affected by the project.
- **b.11. Financial agreement:** loan or donation agreement with financing conditions.
- **b.12. Procurement plan:** documentation of the procurement processes expected to take place in relation to the project.
- **b.13. Project approval decision:** document that evidences the approved budget for the project.

2.1.1.3 Tender management and contract implementation

During the tender management stage of each contract within the project, the CoST IDS covers three groups of information and data sets across the following phases: initiation, award, and contracting. The groups have 22 elements applicable to each tender process in a project, with each project likely to include multiple contracts to deliver the following assets: planning, design, construction, and supervision, or a combination of these. The elements are shown in **Table 2.5** and explained below.

PROACTIVE	REACTIVE
Initiation c.1.1. Procuring entity c.1.2. Procuring entity contact details c.1.3. Procurement process Award c.1.4. Number of firms tendering c.1.5. Cost estimate Contracting c.1.6. Contract administration entity c.1.7. Contract type c.1.8. Contract title c.1.9. Contract firm(s) c.1.10. Contract price c.1.11. Contract scope of work c.1.12. Contract start date c.1.13. Contract duration c.1.14. Contract status (current)	Initiation c.1.15. Procurement method c.1.16. Tender documents Award c.1.17. Tender evaluation results Contracting c.1.18. Contract officials and roles c.1.19. Contract agreement and conditions c.1.20. Registration and ownership of firms c.1.21. Specifications and drawings c.1.22. Project design report

Table 2.5 Data and information to be made available during tender management

- **c.1.1. Procuring entity:** name of the organisation carrying out the tender process (e.g. "Highways Agency").
- **c.1.2. Procuring entity contact details:** postal and electronic address (e.g. "Tanzania National Roads Agency (TANROADS), P.O. Box 11364, Dar es Salaam, Tanzania").
- **c.1.3. Procurement process:** select from a list such as international competitive bidding, national competitive bidding, donor procurement rules, framework, direct award (e.g. "National competitive bidding").
- **c.1.4. Number of firms tendering:** number of firms which submit a tender (e.g. "Five firms tendering").
- **c.1.5. Cost estimate:** currency and amount of the original pre-tender owner's estimate of the contract (e.g. "Task order M279 – £150 952, task order M302 – £381 044, package order 1068 – £120 454").
- **c.1.6. Contract administration entity:** name of the organisation carrying out the contract administration if different from the procuring entity (e.g. "Highways Agency").
- **c.1.7. Contract type:** select from a list such as: design, supervision, design and supervision, design and construction, construction (e.g. "Construction").
- **c.1.8. Contract title:** formal name of the contract and a reference number (e.g. "Contract number 2021–1239: consultancy services for the supervision of upgrading of Magole–Turiani–Mziha road to bitumen standard, lot 1: Magole–Turiani (48.6 km)").
- **c.1.9. Contract firm(s):** legal name of supplier and registration number if available (e.g. "Skanska Construction UK Limited, company number 879819").
- **c.1.10. Contract price:** currency and price at contract award (e.g. "£17.825 million").
- **c.1.11. Contract scope of work:** main outputs from the contract, such as detailed design, supervision, project management and/or type, quantity, unit for construction (e.g. "Design and construction of the new viaduct and associated roadworks, diversion and reinstatement of services, protective measures and demolition of the existing structure").
- **c.1.12. Contract start date:** contract start date or initiation order (day-month-year) (e.g. "19 March 2019").
- **c.1.13. Contract duration:** number of days from contract start date to (planned) completion date (e.g. "637 days").
- **c.1.14. Contract status (current):** select from pre-award, active or closed (e.g. "Active").
- **c.1.15. Procurement method:** specify tendering method using a method list, such as open, selective, limited and direct.
- **c.1.16. Tender documents:** documents issued to potential suppliers that describe the goals of the contract, such as the works and services to be procured, and the bidding process.
- **c.1.17. Tender evaluation results:** report on the evaluation of the bids and the application of the evaluation criteria, including the justification for the award stripped of any data that could be considered as commercially confidential.
- **c.1.18. Contract officials and roles:** name and position of the public official in charge of the administration of the contract(s).
- **c.1.19. Contract agreement and conditions:** a copy of the signed contract with the agreed works programme, quality management plan and environmental and social management plan. Consider providing both machine-readable formats (such as original PDF, Word, or Open Document format files) and a separate document entry for scanned signed pages, where required.
- **c.1.20. Registration and ownership of firms:** documentation providing details of the registration, including the registration number, registered address and official company name, of each contracted company, together with the best available information about their owners.
- **c.1.21. Specifications and drawings:** detailed technical information about works or services to be provided.
- **c.1.22. Project design report:** normally prepared by the consultant or firm responsible for the design and endorsed by the project owner, it provides a record of the justification for the adopted design approach. It also highlights anticipated technical risks that have been identified and addressed in the process.

During contract implementation, the CoST IDS covers 11 elements applicable to each contract in a project. These are shown in Table 2.6 and explained below.

PROACTIVE	REACTIVE
c.2.1. Variation to contract price	c.2.7. List of variations, changes, amendments
c.2.2. Escalation of contract price	c.2.8. List of escalation approvals
c.2.3. Variation to contract duration	c.2.9. Quality assurance reports
c.2.4. Variation to contract scope	c.2.10. Disbursement records or payment certificates
c.2.5. Reasons for price changes	c.2.11. Contract amendments
c.2.6. Reasons for scope and duration changes	

Table 2.6 Data and information to be made available during contract implementation

- **c.2.1. Variation to contract price:** difference between the price at contract award and the current projected price, excluding adjustments due to escalation (e.g. “As a result of contract variations, the contract price has increased by TZS 6.25 billion (14.8 % of the original contract value)”).
- **c.2.2. Escalation of contract price:** normally restricted to multi-year contracts, this refers to an adjustment based on the escalation to date of the price of materials, labour, equipment and so on due to inflation or currency fluctuations. It is calculated in accordance with specific contract clauses and related Indices set out in the contract (e.g. “To date, based on the provisions of clause 55 (price adjustment) in the general conditions of contract, the contract price has increased by TZS 3.46 billion (8.2 % of the original contract value)”).
- **c.2.3. Variation to contract duration:** difference between original duration at contract award and the current projected duration in days (e.g. “210 days”).
- **c.2.4. Variation to contract scope:** any changes between the original scope at contract award and the current scope (e.g. “Extending the design standard of town section for Butajira town by 770 m and change in design for section of the road from km 84+300 to km 86 +900 from rural section to town section”).
- **c.2.5. Reasons for price changes:** summary of reasons for primary factors (variations or escalation) that have led to changes in contract price (e.g. “Increased quantities of reinforced concrete as a result of adjustments to design to include additional lined drainage channels and escalation in price of diesel”).
- **c.2.6. Reasons for scope and duration changes:** summary of reasons for primary changes, including variations that then lead to changes in the scope and duration (e.g. “Updating of design to comply with latest design standard criteria for adopting a ‘town’ rather than ‘rural’ cross section. This design review and the late settlement of interim payment certificates contributed to successful claims for additional time”).
- **c.2.7. List of variations, changes, amendments:** documentation with details of changes to the duration, price, scope, or other significant features of the contracting process.
- **c.2.8. List of escalation approvals:** document containing a list of the escalations to contract price approved during the project life cycle.
- **c.2.9. Quality assurance reports:** documentation identifying strengths and weaknesses in the underlying processes, to ensure that designs, procedures and practices are fit for purpose in ensuring that the occurrence of defects is minimised and that when defects or mistakes do occur, they are promptly and effectively identified and addressed.
- **c.2.10. Disbursement records or payment certificates:** documentation providing dates and amounts of stage payments made (against total amount) and the source of those payments, or a document certifying that the noted work has been completed and payment to the contractor is approved or made.
- **c.2.11. Contract amendments:** documentation of the amended contract terms, such as addenda, modifications, change orders and variations.

2.1.1.4 Project completion

During project completion, the CoST IDS recommends disclosing 12 elements as shown in **Table 2.7** and explained below.

PROACTIVE	REACTIVE
d.1. Project status (current)	d.7. Implementation progress reports
d.2. Completion cost	d.8. Budget amendment decision
d.3. Completion date	d.9. Project completion report
d.4. Scope at completion	d.10. Project evaluation report
d.5. Reasons for project changes	d.11. Technical audit reports
d.6. Reference to audit and evaluation reports	d.12. Financial audit reports

Table 2.7 Data and information to be made available during project completion

- **d.1. Project status (current):** the current stage of the project. Select from: identification, preparation, tender management, implementation, cancelled, in completion or completed (e.g. "Completed").
- **d.2. Completion cost:** state projected or actual completion cost (currency and amount) (e.g. "£17.927 million").
- **d.3. Completion date:** state projected or actual completion date (day-month-year) (e.g. "9 March 2019").
- **d.4. Scope at completion:** indicate projected or actual scope of project. The aim is to show whether the completed project scope differs from the original project scope, and, if so, how. Specify main outputs (type, quantity, unit) (e.g. "Same as original with the following changes: extending the design standard of town section for Butajira town by 770 m; change in design for section of the road from km 84+300 to km 86 +900 from 'rural' section to 'town' section").
- **d.5. Reasons for project changes:** summary of primary reasons for any changes in scope, time and cost (e.g. "Scope and quantities increased due to update of design in accordance with current standards; delays due to late granting of site possession, delayed payment to contractor and inclement weather; cost increases primarily associated with increased scope and price escalation").
- **d.6. Reference to audit and evaluation reports:** reference to publicly available technical and financial audits (e.g. "2019 value for money audit (road authority)").
- **d.7. Implementation progress reports:** documentation on the status of implementation, usually against key milestones.
- **d.8. Budget amendment decision:** document accrediting the approval of any budget expansion or extension for the project.
- **d.9. Project completion report:** this provides: a summary of the objectives of the project, the approach adopted, an overview of progress achieved, challenges encountered and lessons learned. Other documents in this category may include the certification by the relevant contract administrator that the main works were fully completed as specified, as well as documents related to the government's formal acceptance of the completed infrastructure.
- **d.10. Project evaluation report:** this is generally aimed at understanding and learning lessons from what worked and what did not, including in terms of internal project communication and management processes. Unlike the project completion report, this focuses primarily on the extent to which the project outcomes are demonstrably contributing to the intended outcomes.
- **d.11. Technical audit reports:** documentation of checks that construction work has been undertaken as specified.
- **d.12. Financial audit reports:** documentation of checks that project financial statements are correct and complete.

2.2 STEPS TO START THE PROCESS OF PUBLISHING DATA

The data publication process requires procuring entities to ensure that information about publicly financed infrastructure projects is open, accessible and published in a timely manner. A structured set of steps can help achieve this goal (see **Figure 2.3**).

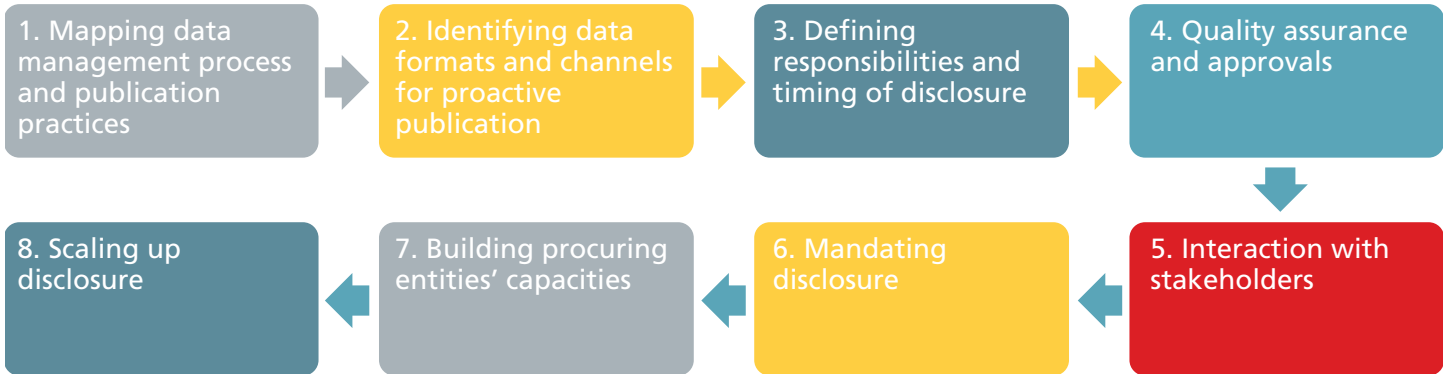


Figure 2.3 Overview of steps to start the process of publishing data

2.2.1 Mapping data management processes and practices

Before publishing data, it is recommended to map existing data management processes and publication practices within the procuring entities that will be part of the data publishing process. The objective is to respond to some key questions:

- How does the existing data management process work?
- What data points are generated?
- What data points are being published?
- How is data published?
- When is the data published and by whom?
- What is the legal basis for publishing data (if any)?

The answer to these questions will inform the design and implementation of the publication process. This includes identifying the best channels for data dissemination, ensuring quality and related approvals, engaging stakeholders, assessing the need for a formal disclosure mandate, and developing a guideline to build the capacity of participating procuring entities before scaling up the process.

If a scoping study has been conducted (see separate [CoST guidance note](#)), its findings and recommendations on legal and regulatory publication requirements, as well as on current practices of procuring entities in publishing project and contract data, can greatly inform the design of an effective data publication process.

A straight-forward Excel-based tool is available to help identify the current data management process and practices in publishing project data and information. The standard list of items can be adapted to ensure alignment with: local systems, legal requirements, terminology and industry practices. It can also be amended to include other data points that stakeholders will find relevant or interesting. See **Annex 2** for further details.

MOZAMBIQUE: MAPPING EXERCISE

The journey of Mozambique illustrates the importance of undertaking initial mapping exercises before publishing data. The scoping study conducted in 2019 mapped the country's regulatory landscape for transparency, including Article 48 of the Constitution, the Access to Information Law (Law No. 34/2014), and Decree No. 52/2020, which outlined the legal framework for Public Investment Management in Mozambique. A key finding of the study was the absence of confidentiality provisions or information classified as state secrets that could prevent publication in line with the CoST Infrastructure Data Standard (IDS). The study also identified significant transparency gaps. Only 52% of the data points required by the CoST IDS for proactive publication were normally published by the Road Fund, while just 23% of the data points subject to reactive disclosure were easily available. These findings helped the multi-stakeholder group in Mozambique design data management processes better suited to address these gaps.

The study also found that, while public participation was legally mandatory in Environmental Impact Assessment and Resettlement processes, the involvement of civil society organisations in monitoring and tracking infrastructure development projects remained very limited. This reinforced the value added of multi-stakeholder collaboration in strengthening social accountability, as well as the importance of implementing accessible publication channels. Building on these findings, CoST Mozambique worked with the Road Fund to develop an open data portal, strengthening existing processes and standardising data collection.

NOME DO PROJECTO	DESCRIÇÃO DO PROJECTO	SECTOR	FASE	AÇÕES
Reabilitação e Asfaltagem da Estrada R1251 Mueda Nambungale (59km) Bypass para Vila de Mueda 2.38 MZN	No âmbito do presente projeto, a ANE IP, contratou a empresa Zhongmei Engineering Group Limited, para a execução das obras de reabilitação e asfaltagem da estrada R1251- Mueda Nambungale (59km), incluindo a construção de mais 5,4km de bypass para a vila de Mueda, na Província de Cabo Delgado. O Projeto está inserido no programa da Sub-Regional da SADC para Transporte e Facilitação do Comércio.	TRANSPORTE - RODOVIA	IMPLEMENTAÇÃO	Ver Detalhes
Programa de Estradas Distritais - Distrito de Bítima - Ano 2025 2M MZN	Melhoramentos Localizados da estrada NIC Impire-Mecuto, numa extensão de 12 km.	TRANSPORTE - RODOVIA	IMPLEMENTAÇÃO	Ver Detalhes
Programa de Estradas Distritais - Mutatara - 2025 2M MZN	Melhoramento localizado da estrada NIC Crz. Traquino-Gali Gali numa extensão de 25 km, cujo objetivo garantir a mobilidade de pessoas e bens das zonas rurais da população de Distrito de Chitua	TRANSPORTE - RODOVIA	CONCLUSÃO	Ver Detalhes
Programa de Estradas Distritais - Doa - 2025 2M MZN	Melhoramento localizado da estrada R1053Crua. N1223-foocoso numa extensão de 25km, cujo objetivo é garantir a mobilidade de pessoas e bens das zonas rurais da população de Distrito de Doa	TRANSPORTE - RODOVIA	IMPLEMENTAÇÃO	Ver Detalhes

2.2.2 Identifying data formats and channels

Data should be presented in a clear, consistent and usable format that lends itself to analysis. It is recommended that data is published in an open format such as Excel, comma-separated values or JavaScript Object Notation⁵, and under an open licence. An [open licence](#) grants permission to access, re-use and redistribute a work – whether sound, text, image or multimedia – with few or no restrictions. An open data format and open licence allows anyone to access, share use and reuse the data (see [Chapter 3](#)).

Moreover, data should be published through a public channel that is accessible to a wide range of stakeholders. There are various mechanisms for data publication, including online platforms, print media, broadcast media and social media. Generally, one channel should be chosen as the primary mechanism with others added to serve the needs of specific stakeholders or in pursuit of specific objectives.

2.2.2.1 Online platforms

An easily accessible website, online database or other application allows for simple management and updating of the published data from many procuring entities and projects. It can also facilitate the search for, selection, viewing and comparison of projects or data in different formats and languages. Moreover, it can help achieve effective interaction with the public in several ways. Not only can some data be presented in a manner that is more likely to be understood by a non-expert, but reactions to data publication or requests for information and clarification can readily be submitted online. Procuring entities can also respond in this manner. The best suitable online platform will be determined by the structure of government, internet capacity and stakeholder needs. Options include the following:

- An existing or new central government web portal, such as those hosted by public procurement oversight authorities. This is likely in a more centralised structure of government.
- Procuring entities' official websites. This is more likely to occur where the procuring entity has a high degree of autonomy. Linking procuring entities to a central site provides a central point of access for stakeholders.
- A CoST member programme website. This may be considered as a short-term option while a government infrastructure portal is being developed, or when the government is ready to take over the platform at a later date.

⁵ JSON stands for **J**ava **S**cript **O**bject **N**otation. It is a lightweight format for storing and transporting data often used when data is sent from a server to a web page.

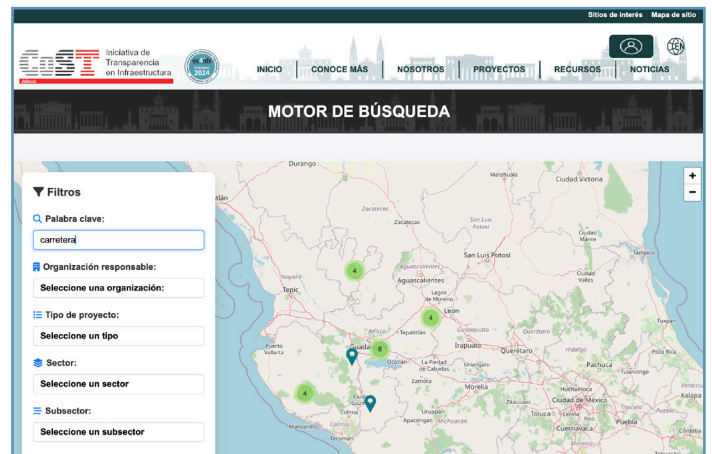
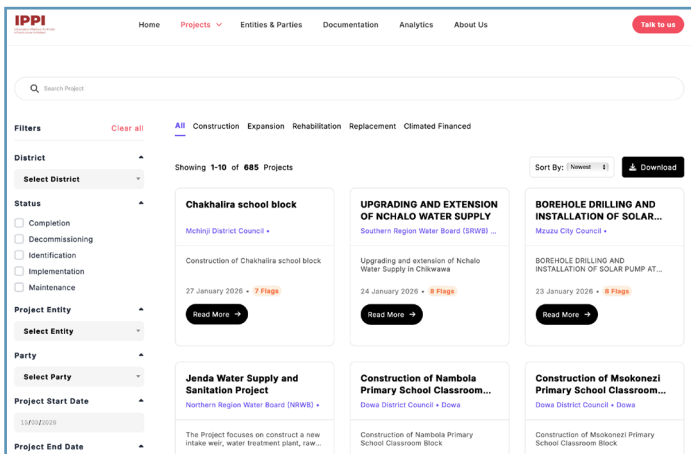


Figure 2.4 Examples of online platforms: Information Platform for Public Infrastructure in Malawi (IPPI) and Data portal for CoST Jalisco

The preferred option will depend on the capacity of the individual procuring entity and of the broader public sector. Where procuring entities have electronic information management systems, adapting these systems to publish data could be relatively straightforward and should make the process much easier.

Where procuring entities rely on paper-based systems, in the short term, this data can be entered into a spreadsheet or comma-separated values format while the information management and publication systems are being developed.

Regardless of the selected option, it is important that the procedures for compiling and publishing data support the eventual transition to and scaling up of a fully automated or electronic data management and publication system.

An Excel-based tool is available to help procuring entities in publishing project data and information. The standard list of items can be adapted to align with local systems, legal requirements, terminology and industry practices. It can also be amended to include other data that stakeholders will find relevant. See **Annex 3** for further details.

2.2.2.2 Social media

Social media such as X, Facebook and text messaging can be used to inform citizens that the information has been published. In remote areas with poor internet access, text messaging has been a particularly effective tool for disseminating information to citizens.

2.2.2.3 Print media

Print media may be preferred in areas where internet access is limited or unreliable, where printed publication is required for official documents, and where it is a useful supplement for reaching certain target audiences. The primary drawback of using printed media is the volume of data to handle (e.g., when data publication spans many projects and entities) and the need for frequent updates to remain relevant and timely. When data is being summarised, care needs to be taken to ensure that relevant and meaningful elements are retained.

2.2.2.4 Offices

Where data is disseminated through print media or in locations with poor internet connectivity, it can be useful to have a portfolio of data sheets available as basic hard-copy documents. This can be provided for reference in a procuring entity office, public information centre or community centre, such as on a noticeboard. Some offices could also provide the public with electronic access to data stored on their local drives.

2.2.2.5 Events

Events have proved effective for dissemination in some situations, especially in the early stages of building demand for the published information. Such events, or similar ones, may, in some cases, be officially required components of the planning, preparation, and implementation of infrastructure projects. Meetings may be used to release data on key occasions, or to enable active interaction with the media and civil society organisations in a constructive environment.

UGANDA: USING DIFFERENT CHANNELS TO ACCESS INFRASTRUCTURE DATA

The legal framework in Uganda – the Access to Information Law of 2005 and Regulations of 2011, the Public Procurement and Disposal of Assets Authority Act 2003 and the Constitution of Uganda 1995 as amended – provide for citizen access to information, using various online platforms such as official websites, the Government Procurement Portal, Electronic Government Procurement Portal (E-GP) and the National budget portal, as well as through traditional and social media handles.

The Government of Uganda's Procurement Portal has adopted OC4IDS to publish infrastructure data. Since 2022, datasets containing project and contract information have been available for download, enabling independent analysis and reuse. The portal also includes embedded visualisations that summarise key information for the public, such as the number of projects added to the portal each month, and distributions of projects by sector and by type. This approach makes the data easier to understand, supports monitoring by civil society and the media, and strengthens transparency across the infrastructure cycle. The portal is now evolving to include sustainability and climate-finance data points that have been selected in line with the country's context and priorities.

The use of physical channels is also encouraged. These include information officers within procuring entities and community meetings, many of them led by CoST Uganda, known as barazas, which serve as accountability platforms that foster participation and allow officials to respond to community concerns. Procurement entities have also established other means of sharing information on public infrastructure projects. The Kampala Capital City Authority introduced a dedicated 'Projects' section on its website featuring key infrastructure initiatives, including the Kampala City Roads Rehabilitation Project (KCRRP) and the Kampala Institutional and Infrastructure Development Projects (KIIDP).



The events can be large forums aimed at maximising participation, or smaller targeted workshops or roadshows that allow for more detailed discussion. The latter may be targeted at a sector or community level to facilitate explanation and discussion of issues of local concern.

2.2.3 Defining responsibilities and timing of publication

The timing and frequency of data publication should reflect the nature of the different sectors and the size and complexity of infrastructure projects. The options for the timing and frequency of publication are as follows:

- Publication at project milestones. This may be preferred in the early stages of the project life cycle, as much of the data is collected once and is unlikely to change. Examples of project milestones may include:
 - end of the project identification phase, when the budget and project approval have been received
 - completion of project design
 - end of the project preparation phase, prior to invitation to tender for the works contract
 - end of the tender management process, at contract award
 - contract completion (after defect liability period)
 - project completion.

Supplementary milestones may be required during project stages, especially on large, complex projects, when the overlapping processes for project identification, appraisal, and preparation can be lengthy.

- Publication at regular fixed intervals, such as monthly or quarterly. This is particularly relevant during construction, when data points such as anticipated contract cost and anticipated contract completion date can vary significantly several times over a long construction period. This option could also apply in the early stages of a long, complex project, where significant changes may occur at each stage.

This step also includes defining who, specifically within the procuring entity, will be responsible for compiling and publishing data. Ideally, the public official responsible for day-to-day project management should be involved in the process. While retaining clarity on the ultimate lines of responsibility for data publication, the task may be distributed among different officials

according to the internal division of the procuring entity's responsibilities. For example, the planning unit could publish data during the project identification and preparation stages, while those responsible for tender management could do likewise until the contract award. The contract management unit could then integrate routine publication into its processes for contract implementation and completion.

2.2.4 Quality assurance and approvals

Procuring entities will normally need to establish an internal quality assurance process to ensure that the timing of data publication and the accuracy and completeness of what is published are consistently achieved, with clear lines of responsibility for quality management and related internal approvals. The requirements of this process, with realistic related timelines and contingencies, should be clearly specified in the internal procuring entity procedures.

2.2.5 Interaction with stakeholders

To be effective, a publication process must provide an appropriate means for stakeholders to raise questions about the published data. Providing a formal mechanism for stakeholders to submit questions and ensuring they are received by the appropriate person within the procuring entity will make this process transparent and fair. Questions are likely to fall into one of three categories:

- request for additional information (reactive disclosure)
- request for specific clarification or explanation of particular issues
- complaint, and request for action on an issue requiring remedy.

It is recognised that some aspects of the applicable procedures for responding to disclosed information are likely to be defined, to some extent, in existing procedures or regulations. These may include those related to freedom-of-information provisions, though the mechanism for submitting questions may differ by category.

In some cases, for instance, requests for additional information can be submitted by any eligible person either through a specific electronic system, by regular mail, or at the project owners' and procuring entities' offices. Reactive disclosure or response from the procuring entity usually entails making the additional information available to the requesting party in a usable form, in an accessible place and under a specified set of conditions. This is what CoST calls reactive disclosure (**Figure 2.5**).

Specific requests for explanation or clarification may need to be handled under another mechanism, so the procuring entity should establish protocols for appropriate and timely handling of such requests. Both the submitted request and response should be handled transparently, for example, by being displayed on the relevant part of the website used for information publication. The extent to which a procuring entity makes the content of all requests and responses visible to the public is a matter of choice. Some may prefer to develop and update a series of frequently asked questions.

Particular requests for action (for example, on a safety concern) or complaints may need to be handled under separate protocols and via mechanisms appropriate for that purpose.

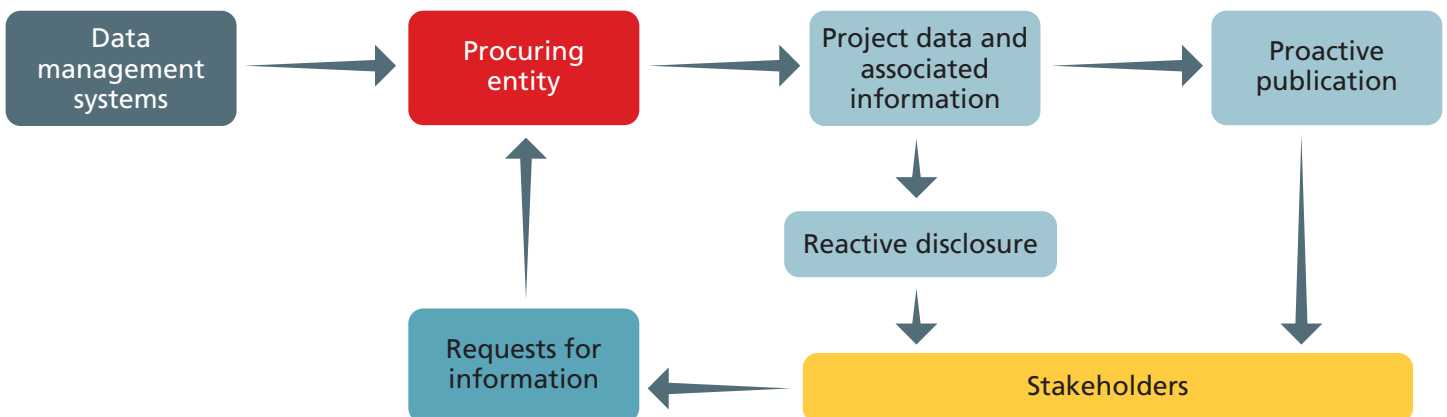


Figure 2.5 Typical data flows in CoST

2.2.6. Mandating publication of data

A formal disclosure mandate is the administrative or legal basis that obliges procuring entities to publish project and contract data and information in line with the CoST IDS or OC4IDS. This mandate is important because it gives public officials clear authority and a duty to collect, compile, and disseminate data to the general public within legal boundaries.

A mandate may be needed to support and help shape a publication process that aligns with and complements the country's existing institutional functions, policies and laws relating to access to information, procurement and public financial management. A CoST member secretariat can support public officials in drafting a compelling formal disclosure mandate. This may include consultation with private sector and civil society organisations as part of the process of generating awareness of and support for the proposed approach among the relevant authorities.

Establishing a long-lasting, enforceable mandate to publish data, such as a national procurement law or regulations, takes time; therefore, an interim mandate should be adopted in the early stages of a CoST member programme.

This is likely to be based on a ministerial directive or government policy that provides sufficient authorisation for specific procuring entities to disclose project and contract data and information for a limited period.

The interim mandate should be in force before procuring entities begin data publication and should continue until a permanent mandate is established. The permanent mandate would be developed once the government has an adequate basis to do so. It should ideally apply to all public infrastructure and continue to be enforced after the CoST member programme ends. See **Annex 4** for examples of formal disclosure mandates.

After a mandate is issued, it is appropriate to establish a publication guideline for using the selected public channel for proactive publication. This would define a list of data points to be published, together with details of formats, timing, frequency, responsible parties, and related quality assurance and controls. This policy should include information that can be released in response to a request for additional information. It is likely to be governed by a country's freedom-of-information legislation.

Most publication regimes exclude information of a temporary nature. Examples include internal correspondence and draft versions of documents or papers related to ongoing claims that are being considered under agreed processes but have not yet been resolved. Also usually excluded is commercially sensitive information that could compromise market competitiveness, including some elements of bid documents and related evaluations.

The guideline should also establish a process for recording and classifying all requests for information, stakeholder reactions, and responses from the procuring entity or other authorities. This will enable regular publication of a monitoring report by the procuring entity that summarises interactions.

GUATEMALA'S LEGAL MANDATES

The Guatemalan Government introduced a **mandate** in December 2013 when it enforced the CoST IDS as part of the Regulations of the Organic Law of the National Budget. Since then over **40,000 infrastructure projects** have been publishing data using the CoST IDS. To assist the procuring entities, the Guatemala multi-stakeholder group published a **manual** that provides guidance on the timing of data publication and the format of the CoST IDS. The group also provided training on the regulations to over 300 procuring entities. However, as the regulations had to be renewed on an annual basis, the mandate was enhanced when the CoST IDS was included in the **State Procurement Law** in October 2016, in the **procurement regulations** issued by the Ministry of Finance in 2019, and in the **Law to Strengthen the Maintenance and Construction of Strategic Infrastructure** in 2022.



2.2.7. Building the procuring entity's capacity to publish data

It should not be assumed that procuring entities will necessarily start publishing data once a disclosure mandate has been established or a publication policy has been issued.

Building the awareness and capacity of procuring entities to meet the new legal requirements is thus critical if transparency in public infrastructure is to be realised.

This can be achieved by the CoST member secretariat working with the government to develop a capacity building programme that raises awareness about the formal disclosure mandate and uses the publication policy to help train officials on the practical details of publishing data from their infrastructure projects.

2.2.8 Scaling up publication

Building on the experience from the initial data publication, the multi-stakeholder group and the CoST member secretariat can support relevant government entities in identifying the path to scaling up the publication process.

Scaling up the publication process will be necessary when procuring entities publish a significant volume of data across numerous projects and when periodic changes to data are required. Another driver for scaling up publication may be the need for open data that can be easily accessed, sorted, and analysed, with the aim of institutionalising the process over time. An open-source code for developing a data publication tool is available in the [CoST GitHub Repository](#). In **Annex 5**, a CoST GitHub Repository Guide is available, intended for CoST member secretariats, their partners, and IT development teams to facilitate documentation of digital solutions.

It is not uncommon for procuring entities to begin publishing infrastructure data with a focus on a single sector before gradually expanding to others. For example, the portals developed in the Indonesian provinces of [West Lombok](#) and [Nusa Tenggara Barat](#) have a focus on the road sector, with almost 3,000 projects published by 2025 (**Figure 2.6**). Adopting a sector-focused approach can be advantageous, as it allows programmes to pilot data-collection processes, refine publication standards, and demonstrate tangible benefits in a manageable way. Once the data systems are well established, the approach can be scaled to cover additional sectors, supporting broader transparency and more effective monitoring across the entire infrastructure portfolio. In the case of the Indonesian provinces, the successful implementation of the data portal in West Lombok and Nusa Tenggara Barat has attracted the attention of the Belitung Regency, which has been working with CoST to adopt the same data publication model.

In Mozambique, a focused approach is also being adopted, with the Roads Fund leading the implementation of the country's data publication portal. As the Road Fund is an official data publisher aligned with OC4IDS, with [data available in the CoST Datastore and Registry](#), this initial phase will allow the model to be refined before it is scaled up to other sectors and procuring entities across the country.

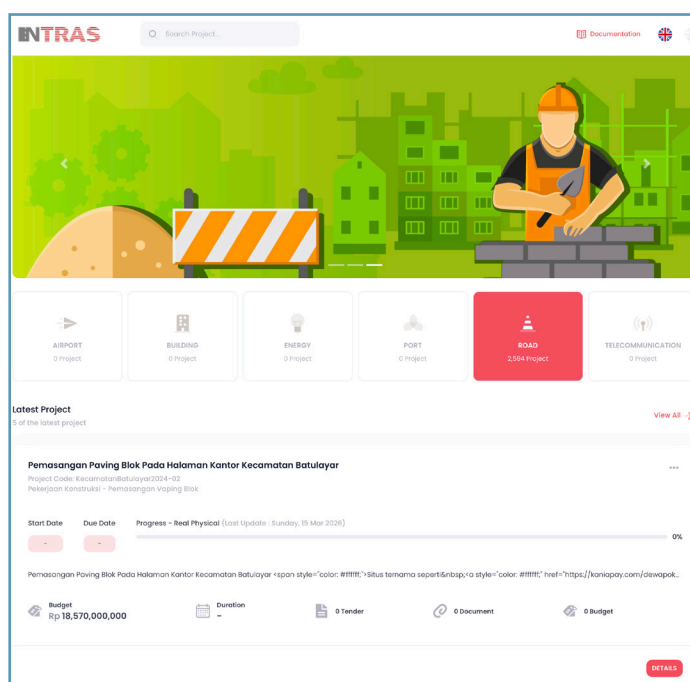
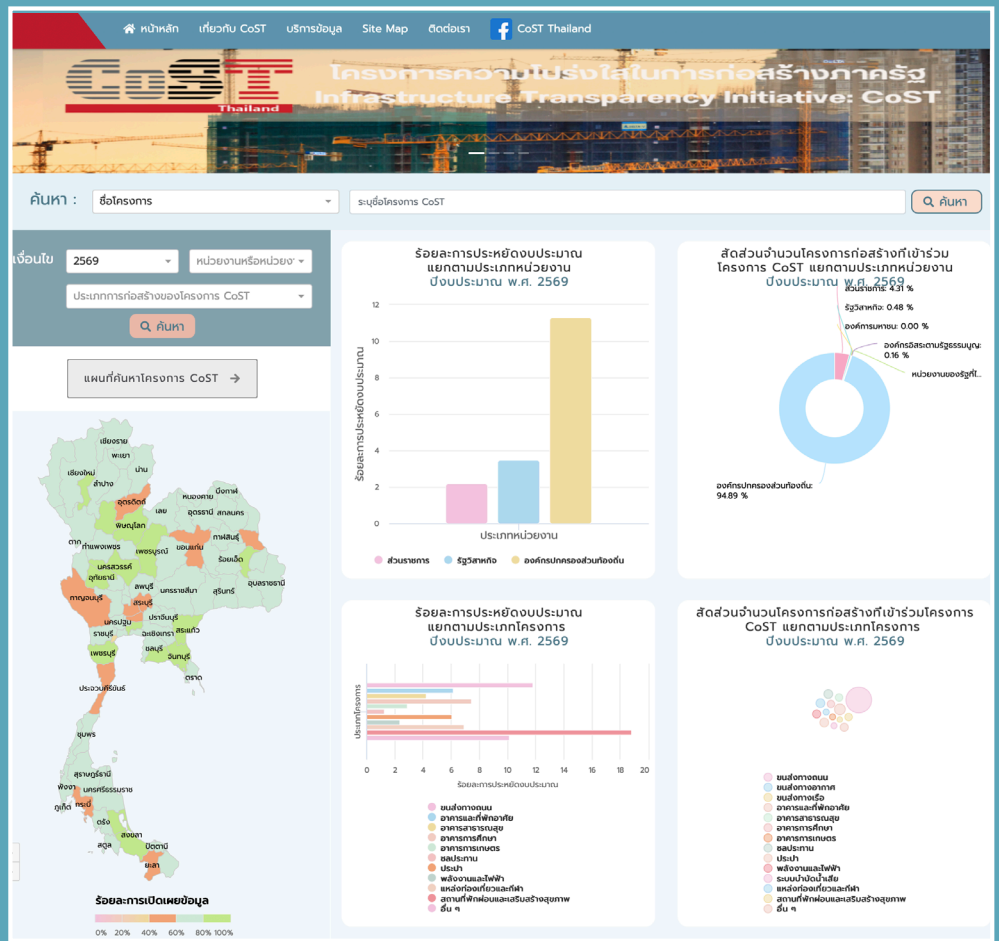


Figure 2.6 Data portal INTRAS developed in West Lombok and Nusa Tenggara Barat

THAILAND: FROM ONE MEGA PROJECT TO AN ENTIRE SYSTEM OF DATA PUBLICATION

When Thailand joined CoST in 2015, the initial vision for data publication focused on a single megaproject: the USD 2 billion expansion of Bangkok's Suvarnabhumi International Airport. Over time the scope of data publication broadened significantly. What began with the publication of data on one project in the beginning of 2015 evolved into a far more ambitious national effort. By 2018, 124 projects were opened to public scrutiny. This expansion was driven by a growing number of procuring entities adopting the CoST approach in the country, supported by improvements to systems and processes and strengthened technical and digital capacities at both national and provincial levels. Since 2015, more than 7,000 projects have published data using the CoST IDS. In most provinces, more than 80% of the recommended CoST data points are now disclosed, marking a substantial improvement in transparency and institutional practice.



Source: <https://costthailand.gprocurement.go.th/egp-cost-public-web/#/main-web/webi/webi0001>

2.3 PUBLIC-PRIVATE PARTNERSHIPS AND THE CoST IDS

The PPP Knowledge Lab defines a public-private partnership (PPP) as “a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance”. Development and implementation of a PPP process includes different stages as follows:

- project identification and screening
- project appraisal and structuring
- drafting a PPP contract
- management of PPP transactions
- management of PPP contracts.

As set out in **Figure 2.7**, the project life cycle of a PPP differs from those categorised as “public procurement projects” or “traditionally procured projects”, for which the CoST IDS was developed.

To ensure its relevance to PPPs, CoST collaborated with the World Bank Group and the Public-Private Infrastructure Advisory Facility (PPIAF) in developing [A Framework for Disclosure in PPPs](#). This joint product includes all relevant data points from the CoST IDS and other key elements specifically applicable to PPPs, and can help promote transparency and accountability in these projects.

CoST member secretariats are encouraged to work with the World Bank Group to conduct a disclosure diagnostic for PPPs before adapting the framework to a specific jurisdiction (see Honduras box). An open-source code that can be used to develop a data publication tool for PPP is available in the [CoST GitHub Repository](#).

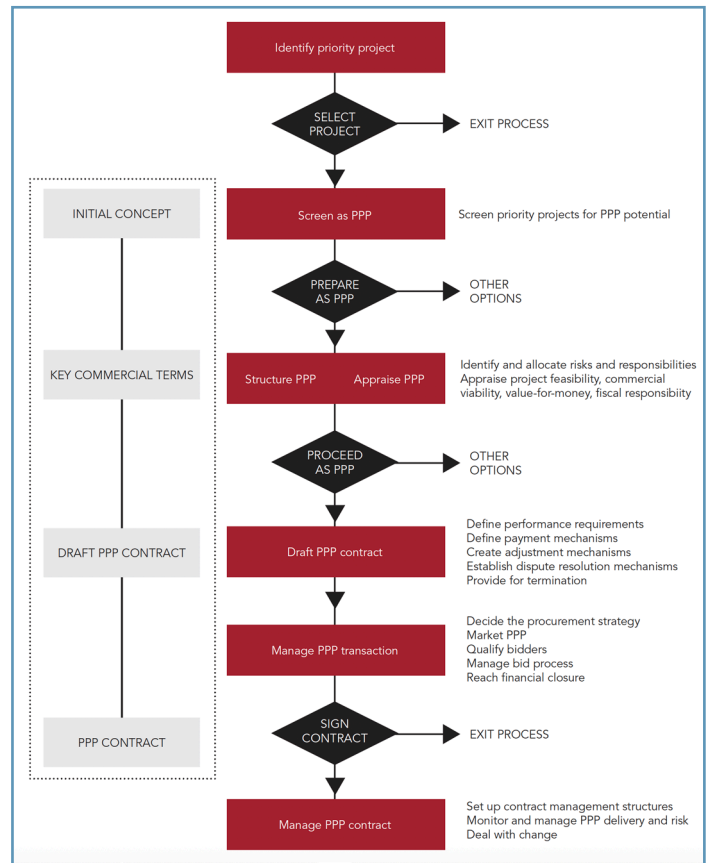


Figure 2.7 Overview of a PPP cycle (World Bank PPP Reference Guide 3.0)

HONDURAS: THE FIRST MEMBER PUBLISHING PPP DATA

In 2015 Honduras became the first CoST member to publish PPP data as part of its transparency programme. Building on this early leadership, in 2016 CoST Honduras recommended the creation of a specific data publication portal for PPPs based on findings its [third independent review report](#) which tested the CoST IDS on several PPP projects. This assessment underscored the need to broaden data transparency to include financial information, risk allocation, PPP screening and transaction management. Momentum continued in 2017, when the CoST Honduras secretariat collaborated with the World Bank Group and the Government of Honduras to prepare a [Diagnostic Disclosure Report](#) for PPPs, providing a detailed analysis of transparency gaps and opportunities. In 2019, CoST Honduras focused its [sixth independent review report](#) exclusively on PPP projects, deepening the evidence base and strengthening institutional understanding of PPP data. In 2020 CoST Honduras supported the development of the [OCDS PPP extension](#), a global standard designed to improve the publication and comparability of PPP data. The experience in Honduras generated [important lessons](#) on how transparency and accountability can be strengthened in the context of PPP investment.



3 The Open Contracting for Infrastructure Data Standard

3.1 THE OPEN CONTRACTING FOR INFRASTRUCTURE DATA STANDARD AS PART OF THE DATA JOURNEY

CoST, the Open Contracting Partnership (OCP) and the Open Data Services (ODS) developed the Open Contracting for Infrastructure Data Standard (OC4IDS) in partnership with experts from the three organisations. It is an open data standard for joined-up data about infrastructure projects and their contracts.

The OC4IDS leverages the CoST Infrastructure Data Standard (CoST IDS) and the Open Contracting Data Standard (OCDS). It combines CoST's work on what to disclose about infrastructure projects and contracts with OCP's work on what to disclose about associated contracting processes, while specifying how to structure and format the data for useful use.

The OC4IDS is designed to make it easier to publish and use infrastructure data. This can, in turn, facilitate improved monitoring and scrutiny of infrastructure projects through the CoST independent review and social accountability processes, or through real-time analysis, for example, via infrastructure analytical dashboards as described in the Data Use Manual.

Moving to OC4IDS does not require publishing more data, but publishing existing data in a structured, machine-readable format. For CoST members with experience of the first step in the data journey, progressing to this next step means continuing to publish the same CoST IDS data points, while ensuring that the structure and formats required by the OC4IDS are followed.

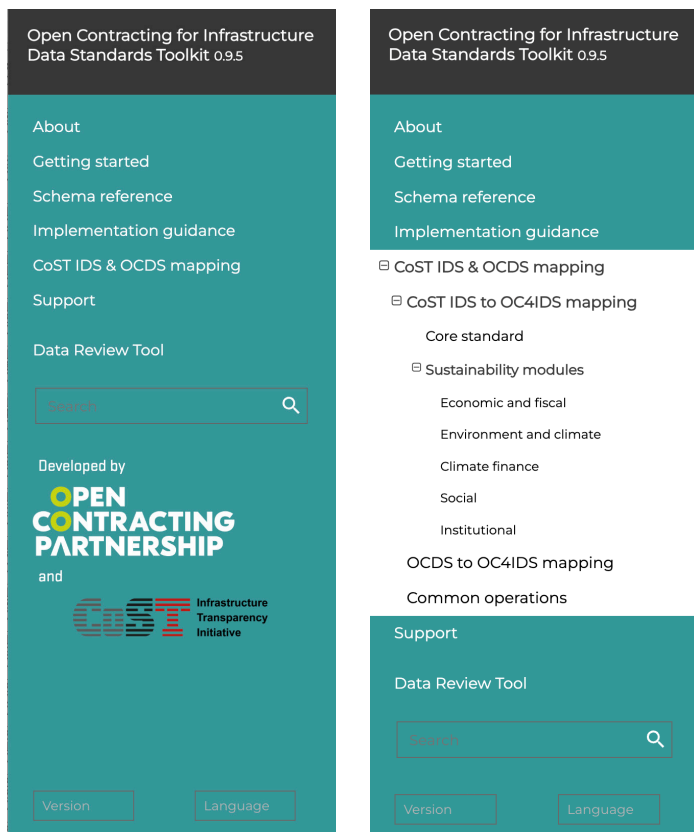


Figure 3.1 OC4IDS website index

3.2 THE OC4IDS AS AN OPEN DATA STANDARD

A data standard describes both the structure of the data and what each item within the data means. An open data standard builds on that by being freely available to anyone for a [range of purposes](#).

As an open data standard, the OC4IDS is freely available in a mini-website developed by OCP and CoST, where the structure of data and its meaning are described in detail. The content of this chapter is based on that and is intended as an additional resource for CoST members or other interested parties seeking guidance on navigating the dedicated website.

The [OC4IDS toolkit](#) can be explored alongside this chapter as a complementary resource to facilitate understanding for those who are not experts in open data.

3.3 EXPLORING THE OC4IDS TOOLKIT

When procuring entities decide to implement OC4IDS, CoST member secretariats can support the process in various ways. This support can include: explaining the basics of OC4IDS to public officials and stakeholders, providing guidance on appointing a development team, building relationships with donors, and even managing a contract for information technology services. In any event, it is strongly recommended that CoST member secretariats are familiar with the [website](#) and its content.

3.3.1 Getting started

The [About](#) and [Getting Started](#) sections of the website are very simple and easy to explore. Basically, both sections provide background, key concepts, definitions, and recommendations for the different options for implementing the OC4IDS.

One important issue to consider is that although the website's content is in English by default, a Spanish version is also available. Before starting, users can switch to their preferred language by clicking the "Language " button in the lower-right corner of the index and selecting their preferred language.

3.3.2 Data formats

When using the website, it is important to understand that the [Schema reference](#) covers at least three formats for publishing data, as follows.

- **Free text or string:** this refers to a specific number of characters (letters, numbers, symbols, spaces) that the user enters freely, while respecting the recommended limits for a sentence or paragraph. In the OC4IDS, a limited number of data points use this format, including: project reference number, project name, project description, project scope, reasons for project and contract changes and scope at completion.
- **Building blocks or objects:** these are essentially similar fields for some data points that follow a template. There are at least eight types of objects, including: organisations (project owners, procuring entities, contract administration entity and firms or companies), organisation reference, project location, funding sources with budget breakdown, contact details, values (e.g. budgets and costs), periods (e.g. contract duration and project completion date) and documents (e.g. project brief or feasibility study, tender documents, contract agreement, and financial and audit report).
- **Code lists:** these are options from a list, aimed at limiting and standardising the possible values of the fields and promoting data interoperability. Code lists can either be open or closed. Closed code lists are intended to be comprehensive and therefore should not be modified unless an issue is registered in the OC4IDS GitHub Repository (e.g. project status, contract status and contract type). Open code lists are intended to be representative but not comprehensive (e.g., sectors, subsectors, and variations to contracts). Open lists can be modified or adjusted if necessary.

Users should also consider that some data could be generated automatically by an information system. Examples could include the project's unique identifier, the initial publication date, and the date of the last update.

Using the stages of the project life cycle as a guide, [Table 3.1](#) summarises the CoST IDS data points and their format in the OC4IDS.

COST IDS DATA POINT	OC4IDS FORMAT	REMARKS
PROJECT IDENTIFICATION		
1. Project reference number	Free text with a prefix	ProjectIdentifiers
2. Project owner	Object	Organization
3. Sector, subsector	Code list	ProjectSector
4. Project name	Free text	One sentence
5. Project location	Object	Location
6. Purpose	Free text or object	ProjectType
7. Project description	Free text	One paragraph
PROJECT PREPARATION		
8. Project scope (main output)	Free text	One paragraph
9. Environmental impact	Free text or object	Document
10. Land and settlement impact	Free text or object	Document
11. Contact details	Object	ContactPoint
12. Funding sources	Object	BudgetBreakdown

13. Project budget	Object	Value
14. Project budget approval date	Free text	Calendar
TENDER MANAGEMENT		
15. Procuring entity	Object	OrganizationReference
16. Procuring entity contact details	Object	ContactPoint
17. Procurement process	Free text or list	List of recognized options
18. Number of firms tendering	Free text or object	OrganizationReference
19. Cost estimate	Object	Value
20. Contract type	Code list	ContractNature
21. Contract title	Free text	One sentence
22. Contract firm	Object	Organization
23. Contract administration entity	Object	OrganizationReference
24. Contract price	Object	Value
25. Contract scope of work	Free text	One paragraph
26. Contract start date	Free text	Calendar
27. Contract duration	Object	Period
28. Contract status	Code list	ContractingProcessStatus
CONTRACT IMPLEMENTATION		
29. Variation to contract price	Object	Modification
30. Escalation to contract price	Free text or object	Value
31. Variation to contract duration	Object	Modification
32. Variation to contract scope	Object	Modification
33. Reasons for price changes	Free text	One paragraph
34. Reasons for scope and duration changes	Free text	One paragraph
PROJECT COMPLETION		
35. Project status	Code list	ProjectStatus
36. Completion cost	Object	Value
37. Completion date	Free text	Calendar
38. Scope at completion	Free text	One paragraph
39. Reasons for project changes	Free text	One paragraph
40. Reference to audits and evaluation reports	Free text or object	Document

Table 3.1. Formats to publish data proactively using the OC4IDS

Users should be aware that some of the language on the OC4IDS website differs from that used in CoST documents. For instance, contract type is labelled as “contract nature”, and variations are “modifications”. In any case, the definitions and examples provided in **Chapter 3** of this manual are consistent with definitions on the OC4IDS website.

In some jurisdictions, due to established practice, applicable regulations, legal frameworks or policies, procuring entities may choose to publish more data points than the 40 recommended for proactive publication in the CoST IDS. For such procuring entities, **Table 3.2** summarises the elements in the CoST IDS recommended for reactive disclosure, highlighting the applicable format from the OC4IDS.

COST IDS DATA POINT	OC4IDS FORMAT	REMARKS
PROJECT IDENTIFICATION		
1. Project officials and roles	Object	ContactPoint
2. Project brief or feasibility study	Object	Document
PROJECT PREPARATION		
3. Multi-year programme and budget	Object	Document
4. Environmental and social impact assessment	Object	Document
5. Resettlement and compensation plan	Object	Document
6. Financial agreement	Object	Document
7. Procurement plan	Object	Document
8. Project approval decision	Object	Document
TENDER MANAGEMENT		
9. Procurement method	Code list	Method
10. Tender documents	Object	Document
11. Tender evaluation results	Object	Document
12. Contract officials and roles	Object	ContactPoint
13. Contract agreement and conditions	Object	Document
14. Registration and ownership of firms	Object	Document
15. Specifications and drawings	Object	Document
16. Project design report	Object	Document
CONTRACT IMPLEMENTATION		
17. List of variations, changes, amendments	Object	Document
18. List of escalation approvals	Object	Document
19. Quality assurance reports	Object	Document
20. Disbursement records or payment certificates	Object	Document
21. Contract amendments	Object	Document
PROJECT COMPLETION		
22. Implementation progress reports	Object	Document
23. Budget amendment decision	Object	Document
24. Project completion report	Object	Document
25. Project evaluation report	Object	Document
26. Technical audit reports	Object	Document
27. Financial audit reports	Object	Document

Table 3.2 Recommended format in the OC4IDS for reactive disclosure elements

The OC4IDS provides further options for other elements that can be published. Those include expected asset lifetime ([period](#)), [open contracting identifiers](#), an extended list of [document type](#), [related projects](#) and [role of relevant parties](#).

It should also be noted that elements considered crucial for specific stakeholders in particular jurisdictions can be added. Examples include the environmental category of an infrastructure project (via another classification), an environmental licence (document), the proportion of women working on the construction site (free text), and compliance with inclusive facilities regulations.

[Sustainability and climate finance data modules](#), which cover economic, social, environmental and institutional dimensions and climate finance for infrastructure projects, have also been developed to enhance the breadth and depth of the CoST IDS and OC4IDS, and can be adopted by procuring entities to deepen their understanding of the sustainability of their infrastructure investments. Further details are provided in **Chapter 4**.

3.3.3 Additional guidance

The [Implementation guidance](#) section provides detailed and useful advice, including on: how to define unique project identifiers, how to follow a step-by-step process for publishing data from an infrastructure project, how to use data from procurement systems, how to ensure compliance with the OC4IDS and how to develop publication policies. This section is interrelated with the following one, [CoST IDS and OCDS Mapping](#), where both approaches are referenced.

Finally, the [Support](#) section and the [Data Review Tool](#) include guidance on contacting the OC4IDS helpdesk, which offers free support services, and on using a self-service verification tool. This provides basic internal data checks, presents a report on data quality and provides information about the contents of the uploaded file.

For a CoST member secretariat supporting a government in implementing the OC4IDS, it is important to understand that the helpdesk offers support in several key areas, including identifying suitable approaches and making effective use of existing tools. The helpdesk can also provide guidance on mapping, give feedback on draft data files and support the data validation process. CoST member secretariats should draw on this support and also take into account the following advice:

- Ask the CoST International Secretariat for advice when drafting the terms of reference for appointing information technology specialists or developers.
- Include the development of an application programming interface to enable eventual interoperability of the data publication platform with other systems.
- Discuss and understand the objectives of key deliverables and the schedule to ensure optimal contract management.

LESSONS FROM IMPLEMENTATION

Since 2019, publishers have been sharing lessons on the implementation of the OC4IDS. These include the following.

- Before starting implementation of the OC4IDS, review the scope and limitations of support that the OC4IDS helpdesk can provide.
- A good starting point for all stakeholders involved in the process is a capacity building programme aimed at understanding the OC4IDS from users' perspectives.
- When communicating how to implement the OC4IDS, it is necessary to do so in different ways with different stakeholders, particularly for non-information-technology specialists.
- In the early stages of an OC4IDS project, it is helpful to promote more peer support and knowledge-sharing among CoST member secretariats. Over time, this can help to achieve a process that is more effective and efficient than may have been possible through a more narrow approach.
- Identify which data points are required under the relevant procurement framework, and assess whether additional mandates, such as those arising from environmental or labour legislation, should also be taken into account when defining the applicable data points.
- Consider strategic partnerships – for example, to host the data publication portal – as a long-term sustainability strategy for the OC4IDS implementation. Equally important is building a multidisciplinary team with diverse skills to ensure the necessary capacities to build the portal and implement the OC4IDS.
- Adopting data management mechanisms early on is essential to prevent the loss of information. This includes establishing secure hosting arrangements, backup systems, and clear protocols for data protection.

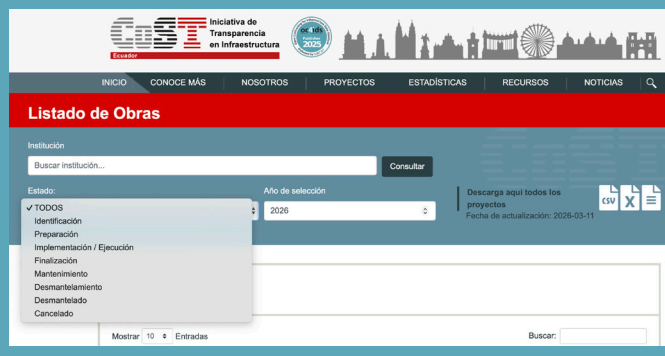


- Request or develop early-stage training for developers to understand the project life cycle, procurement processes, and existing platforms in the respective jurisdiction.
- Provide clear guidelines and feedback to the developers during contract implementation and follow-up communications with the OC4IDS helpdesk.
- Near completion of the back-end, consider appointing website designers to work on the front-end side of the data publication platform.
- Invite experienced colleagues and the CoST International Secretariat to provide input on the final deliverable before it goes online.
- Ensure individual projects and bulk data downloads are available in other formats besides Java Script Object Notation⁶, such as Excel or comma-separated values.
- Include web analytics tools to help understand platform users' interests and behaviour.

Annex 6 provides examples of terms of reference for appointing information technology developers. To guide stakeholders, **Annex 7** includes a Portal Development Workflow that outlines the standard process for developing an OC4IDS-compliant infrastructure transparency portal.

ECUADOR

In 2025, CoST Ecuador launched its [open data platform](#), designed in line with the OC4IDS. The platform brings together information on more than 30,000 public works contracts from national and local entities dating back to 2020. Updated weekly, the portal provides interactive visualisations, maps, filters, downloads and statistics that enable users to explore what is being built, where projects are located, the allocated budgets, the contractors involved, and the physical progress of each project.



3.4 BENEFITS OF ADVANCING IN THE PUBLICATION JOURNEY

The main benefit of advancing in the data journey by implementing the OC4IDS is access to more structured technical data. This can then be “freely used, re-used and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike”. This is the definition of open data in the [Open Data Handbook](#).

Such access to open data can facilitate the CoST independent review process by providing bulk data for an initial sector analysis or procuring entity trends. Also, open data can support CoST social accountability processes by providing access to reusable project-level data that enhances decision-makers' accountability.

Finally, access to structured open data can facilitate movement towards the third step in the CoST data journey. By allowing interoperability or intermixing, different datasets from different sources can be displayed in infrastructure analytical dashboards, as described in the Data Use Manual.

KADUNA STATE, NIGERIA

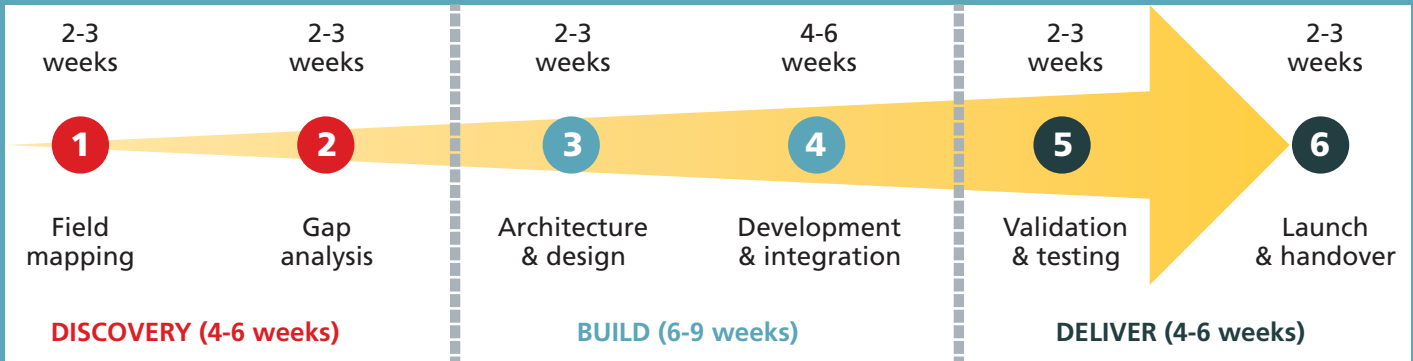
In 2025, the State of Kaduna launched Nigeria's [first portal](#) to publish infrastructure-project data using OC4IDS. The platform hosts data on 1,484 projects. By moving to OC4IDS, Kaduna shifts from contract level publication to full project level transparency, integrating both contract and project information. This sets a precedent for other states in Nigeria to adopt similar open data standards for infrastructure. The portal also provides data analytics visualisations and procurement insights that enhance understanding of Kaduna's infrastructure portfolio. These include a market competition health score, project performance metrics and trends that display summaries of cost overrun exposure and time overrun patterns.



⁶ As previously mentioned, JSON stands for **J**ava **S**cript **O**bject **N**otation. It is a lightweight format for storing and transporting data often used when data is sent from a server to a web page.

DEVELOPING AN OC4IDS PORTAL: THE WORKFLOW

The process of developing an OC4IDS portal follows six sequential phases across three stages. The **DISCOVERY** stage (Phases 1-2, 4-6 weeks) includes field-level mapping of government data systems to the OC4IDS schema, as well as a gap analysis against CoST IDS disclosure requirements. The **BUILD** stage (Phases 3-4, 6-9 weeks) translates the mapping outputs into system architecture design and portal development, with schema validation embedded from the outset. The **DELIVER** stage (Phases 5-6, 4-6 weeks) includes validation against the Publication Criteria, user acceptance testing, and production launch, along with training and handover. The typical overall timeline ranges from 14 to 21 weeks. Government approval cycles and delays in data access often push implementation toward the upper end of this range. The full workflow guide is available as a standalone document from the OC4IDS Helpdesk (**Annex 7**).





A typical timeline for developing an OC4IDS portal

3.5 COST DATASTORE AND REGISTRY

The **CoST Datastore and Registry**, hosted on the CoST website, keep a record of the datasets published by governments in line with OC4IDS. The data sets can be downloaded in spreadsheet, CSV, or JSON format, ready for analysis, and are openly licensed. The datastore fetches and stores data from OC4IDS publishers daily. It serves as a backup system for publishers' data, protecting against information loss while serving as a central data custodian.

As of March 2026, Malawi, Sekondi–Takoradi in Ghana, West Lombok and Nusa Tenggara Barat in Indonesia, Mozambique, the State of Jalisco in Mexico and the State of Kaduna in Nigeria are part of the CoST Datastore and Registry.





CoST Datastore and Registry

Access infrastructure project data in OC4IDS format

Welcome to the CoST Datastore and Registry. The datastore provides access to datasets published by CoST members according to the [Open Contracting for Infrastructure Data Standard](#) (OC4IDS). The datasets are valid according to the OC4IDS schema and openly licensed. You can download full datasets in spreadsheet, CSV or JSON format, ready for analysis in your preferred tool.

The datastore fetches and stores data from OC4IDS publishers on a daily basis. If a publisher's data fails validation against the OC4IDS schema or is unavailable, the datastore provides access to the most recent valid dataset successfully fetched from the publisher.

Figure 3.2. CoST Datastore and Registry

4 Sustainability and climate finance modules

To expand its assessment capabilities and enable procuring entities to explore specific areas in greater depth, CoST has identified a further 45 optional data points related to the sustainability of infrastructure projects and 33 optional data points related to climate finance investments.

4.1 SUSTAINABLE INFRASTRUCTURE PROJECTS

Sustainable Infrastructure refers to projects that are planned, designed, constructed, operated, and decommissioned in a manner intended to ensure economic, financial, social, environmental (including climate resilience), and institutional sustainability over the entire life cycle of the project⁷. The project life cycle stages are shown in **Figure 4.1**.

STAGES OF THE INFRASTRUCTURE PROJECT LIFE CYCLE

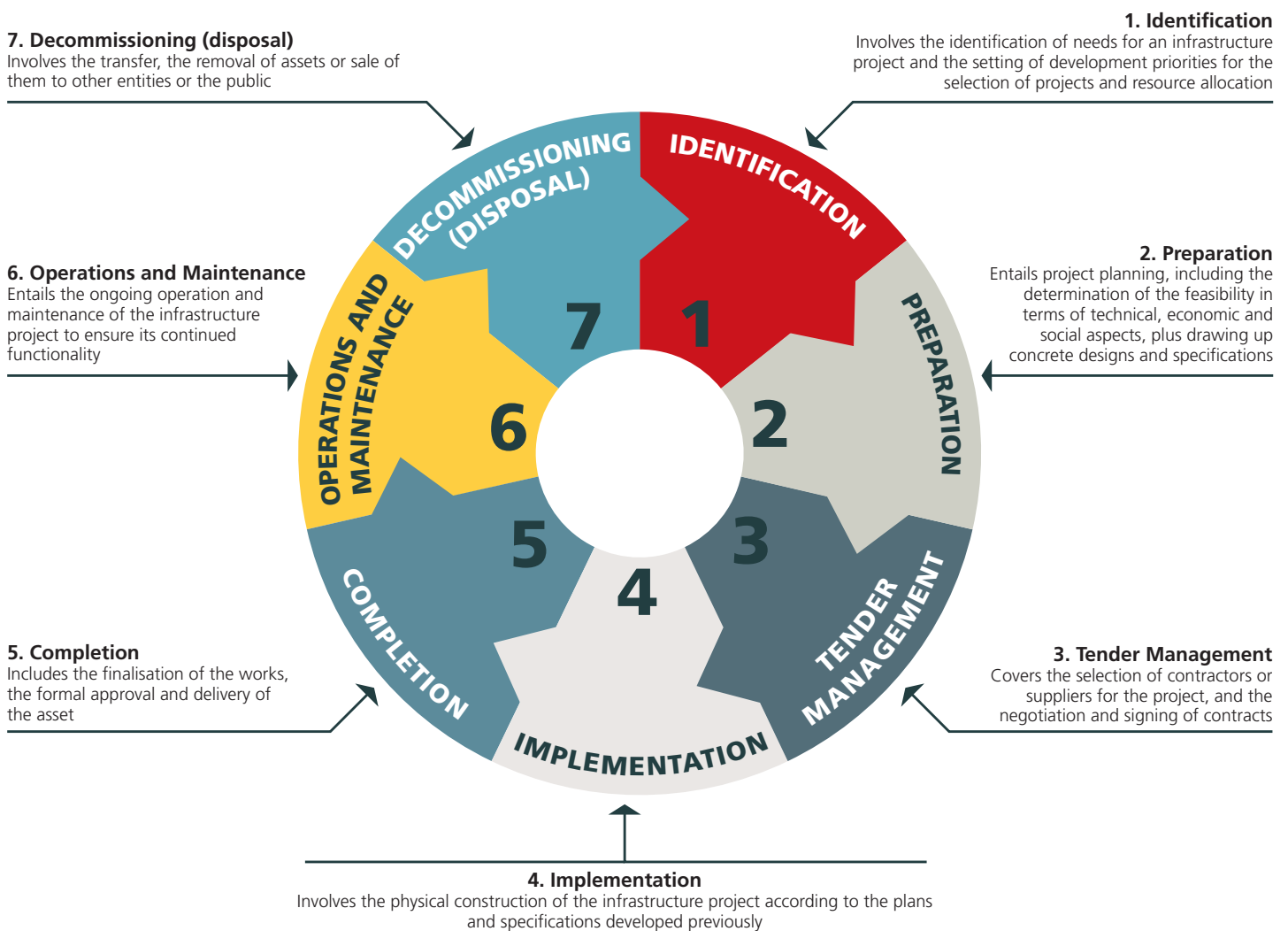


Figure 4.1. Project Life Cycle Stages

⁷ The definition of sustainable infrastructure, the figures for this section, the attributes for sustainability on four dimensions, and the climate finance concept were all derived from the CoST Infrastructure Data Standard (2024), which was based on the IADB document titled *Attributes and Framework for Sustainable Infrastructure* (2019).

A brief explanation of what sustainability in infrastructure looks like for each of its four dimensions is presented in **Figure 4.2**.



Figure 4.2. Dimensions of sustainable infrastructure

Sustainable infrastructure projects offer long-term economic, social, environmental, and institutional benefits by ensuring resilience and efficiency throughout their lifecycle. Such projects can be agents of positive transformation for communities and societies. A simple Excel-based tool is available to help record the 45 data points across the four dimensions of sustainability. Further information on this tool is provided in **Annex 8**.

The following section offers a definition of each data point included in the sustainability modules, with examples provided where relevant. Because publication is optional, these data points are considered a form of proactive publication. For ease of reference, **Figures 4.3 to 4.7** show data points grouped according to the corresponding stage of the project cycle.

4.1.1 Economic and Financial Sustainability

In relation to the project Economic and Financial Sustainability, the CoST standards recommends publishing 11 elements as shown in **Table 4.1** and explained below.

a.1. Procurement strategy: the selected strategy for the procurement process. This is normally part of the decision-making strategy and likely includes discussions regarding capabilities, the delivery model, and the rationale for the risk allocation decision (e.g. “The restoration of Hammersmith Bridge is expected to require funding of up to £130 million. It is expected that these costs will be shared equally by the Department for Transport, Transport for London, and the London Borough of Hammersmith & Fulham, with the portion borne by the latter ultimately funded by bridge users through charges. The recommended delivery model is a design, build, finance, and manage contract, under which the contractor will raise private finance to undertake the works, which will be paid for by the council, taking into account payments to be made by the Department for Transport and Transport for London. The Council’s payments would not begin until the works had been completed. <http://example.com/documents/procurementStrategyAssessment.pdf>”).

a.2. Life cycle cost: cost of an asset throughout its life cycle while fulfilling the performance requirements (e.g. “£50 million”).

a.3. Life cycle cost methodology: methodology used to calculate the life-cycle cost. The methodology ought to specify whether income and externalities are included in the calculation and the common date, discount rate and period of analysis used (“<http://example.com/documents/lifeCycleCostMethodology.pdf>”).

a.4. Funding source for preparation, implementation and maintenance: name the funding organisation (s) or funding source(s) for the preparation, implementation and maintenance stages, and the budget line(s) to which the project belongs. The maintenance stage covers any preventative or corrective maintenance and the day-to-day running of the assets; this stage is also called operation (e.g.

■ **Preparation:** The Department of Levelling Up, Housing and Communities

- http://example.com/documents/budget2019_2020.pdf
- Budget line 07.01.04.01 Viaducts, pavements and complementary works

■ **Implementation:** The Department of Levelling Up, Housing and Communities.

- http://example.com/documents/budget2020_2021.pdf
- Budget line 07.01.04.01 Viaducts, pavements and complementary works

■ **Maintenance:** Brent Council

- http://example.com/documents/budget2024_2025.pdf
- Budget line 07.01.04.13 Others

ECONOMIC AND FINANCIAL SUSTAINABILITY

- a.1. Procurement strategy
- a.2. Life-cycle cost
- a.3. Life-cycle cost calculation methodology
- a.4. Funding source for preparation, implementation and maintenance
- a.5. Budget for preparation, implementation and maintenance
- a.6. Cost-benefit analysis
- a.7. Value for money
- a.8. Asset lifetime
- a.9. Budget projections
- a.10. Budget shortfall
- a.11. Maintenance plan or program

Table 4.1 Economic and Financial Sustainability Data Points

a.5. Budget for preparation, implementation and maintenance: the allocated budget for preparation, implementation and maintenance. Maintenance covers both preventative and corrective maintenance and the day-to-day operation of the assets. This stage is also called operation (e.g. “Preparation and implementation: £419 million. Maintenance: Not specified; however, under the grant agreement, Brent Council committed to covering the shortfall in operational costs until the station becomes profitable”).

a.6. Value for money: the analysis carried out for the project, along with supporting figures, calculations, and business case, based on projected or actual procurement outcomes. This normally includes considerations of economy, efficiency, effectiveness, and equity, and is part of the appraisal documents. Publication of the complete document containing this analysis is recommended, with a clear reference to the relevant pages (e.g. “The value for money analysis is part of the appraisal report, on pages 20-50 – <http://example.com/documents/AppraisalReport.pdf>”).

a.7. Cost-benefit analysis: the economic assessment that provides information on economic net benefits and costs (“ex ante” cost-benefit analysis). A revised assessment can be prepared during the operational phase of the project to update the information on net benefits and costs (“ex post” cost-benefit analysis). Publication of the complete document containing this analysis is recommended, with a clear reference to the relevant pages (e.g. “The cost-benefit analysis is part of the appraisal report, on pages 70-90 – <http://example.com/documents/AppraisalReport.pdf>”).

a.8. Budget projections: projected budget for each year of implementation in case of multiyear projects (e.g. “Year 2024: USD 350,000; Year 2025: USD 300,000”).

a.9. Budget shortfalls: value and reasons for any shortfall in the allocated budget (e.g. “Funding shortfall in the amount of US\$ 2,500,000 due to construction overruns and a lack of budgetary approval”).

a.10. Maintenance plan or program: the documentation that describes work to prevent the breakdown or malfunctioning of an asset (e.g. “<http://example.com/documents/maintenancePlan.pdf>”).

a.11. Asset lifetime: the expected lifetime of the asset, which is normally part of the design report (e.g. “20 years”).

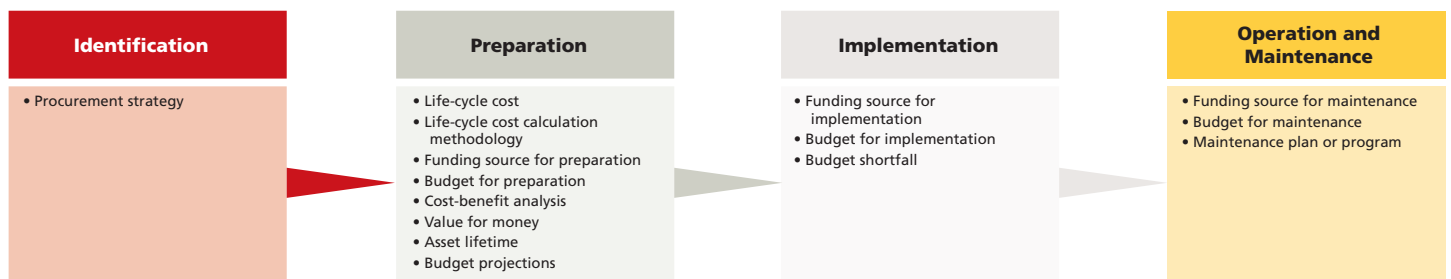


Figure 4.3. Economic and Financial Sustainability Data Points Across the Project Cycle

4.1.2 Environmental and Climate Resilience Sustainability

In relation to the project Environmental and Climate Resilience Sustainability, the CoST standards recommends publishing 11 elements as shown in **Table 4.2** and explained below.

b.1. Environmental impact category: indicate the category that reflects the magnitude of environmental impact. Consider the following 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 (e.g. “Category B”).

b.2. Environmental measures: identify the measures adopted by the project to mitigate and/or remedy the environmental impact, disclosing the corresponding document that describes the project’s environmental measures. This can include, without limitation, the following: waste management; disposal of construction by-products; environmentally responsible sourcing of materials; environmentally responsible use of land, water and air; water contamination management; others (explain) (e.g. “Adopted measures include waste management protocols, sourcing of sustainable construction materials, and water contamination controls”).

b.3. Environmental licenses and exemptions: all licenses, exemptions and/or amnesties obtained for the project. This can be related to Preparation, Implementation and/or Maintenance. These stages are also known as Planning, Construction and Operation, respectively (e.g. “The project secured a construction permit for wetlands impact and an exemption from certain noise restrictions – <http://example.com/documents/environmentalExemption.pdf>”).

b.4. Protected area: identify whether the project is located in, or provides access to, a protected area. Use the project location/coordinates at the WDPA - World Database of Protected Areas to disclose the information (e.g. “The project is not located in a protected area”).

b.5. Conservation measures: measures adopted by the project to protect and enhance biodiversity. This can comprise, without limitation the following: avoidance of ecological sitting buffers for ecological land; nature-based solutions; land restoration; protection to landscape and historical sites; invasive species management; management of wildlife mortality risk; reduce habitat loss; pollution reduction; land, water and air management; hazardous material management; others (explain) (e.g. “Measures include habitat restoration, buffers around ecological zones, and management of invasive species – <http://example.com/documents/restorationPlan.pdf>”).

b.6. Climate and disaster risk assessment: clarify the type of climate and disaster risks to which the project is exposed. This tends to be part of the appraisal documents (e.g. “A climate risk assessment identified flood risk and proposed elevating infrastructure foundations – <http://example.com/documents/climateAndDisasterRiskAssessment.pdf>”).

ENVIRONMENTAL AND CLIMATE RESILIENCE SUSTAINABILITY

- b.1. Environmental impact category
- b.2. Environmental measures
- b.3. Environmental licenses and exemptions
- b.4. Protected area
- b.5. Conservation measures
- b.6. Climate and disaster risk assessment
- b.7. Climate measures
- b.8. Forecast of greenhouse gas emissions
- b.9. Environmental certification
- b.10. Decommissioning plans
- b.11. Decommissioning cost forecast

Table 4.2 Environmental and Climate Resilience Sustainability Data Points

b.7. Climate measures: clarify whether the project design considered climate change mitigation and/or adaptation measures, disclosing the design demonstrating how the measures were incorporated. This can comprise, without limitation the following: use of lower-emission sources of energy; use of lower-emission materials; use of recycled and reused materials; regenerative design; retrofitting design; use of carbon capture technology; assessment of extreme weather events; assessment of precipitation patterns; assessment of rising temperatures; assessment of rising sea levels; others (explain) (e.g. “The project design considered climate change mitigation measures such as the use of lower-emission construction materials, and the incorporation of recycled components. The project also integrates energy-efficient lighting and equipment to reduce operational emissions – <http://example.com/documents/climatePlan.pdf>”).

b.8. Forecast of greenhouse gas emissions: disclose the forecast greenhouse gas emissions related to the project, including the calculation, the methodology applied and where the calculation can be found (e.g. “Forecasted emissions: 3,500 tCO₂e/year during operation – <http://example.com/documents/GhgEmissionMethodology.pdf>”).

b.9. Environmental certification: Disclose environmental and/or climate-related certifications issued for contractors and subcontractors, such as ISO 14001 for environmental management (e.g. “Contractors are required to comply with ISO 14001 for environmental management standards – <http://example.com/documents/contractorEnvironmentalCertification.pdf>”).

b.10. Decommissioning plans: decommissioning plans for the project assets. (e.g. “Plan includes dismantling, recycling of materials and restoring natural vegetation – <http://example.com/documents/decommissioningPlans.pdf>”).

b.11. Decommissioning cost forecast: the forecast decommissioning costs for the project assets (e.g. “Estimated decommissioning cost is USD 2 million, covering cleanup and ecological restoration”).

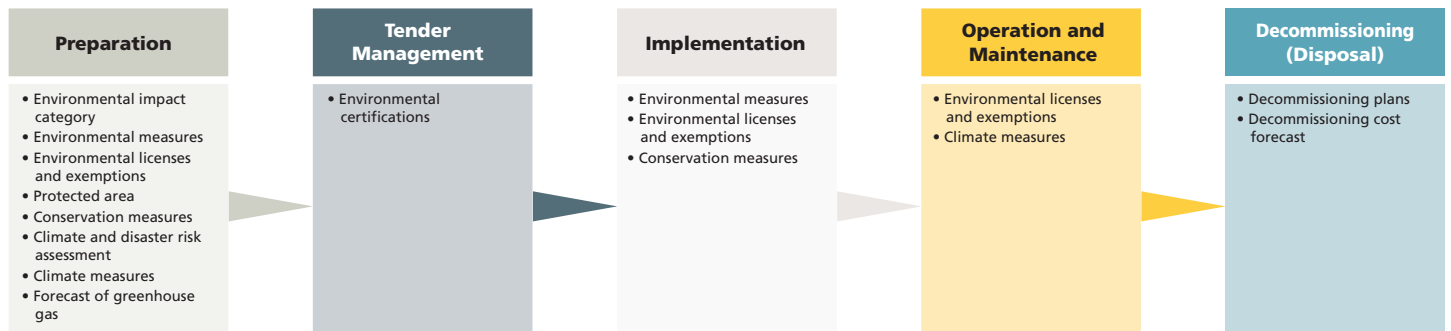


Figure 4.4. Environmental and Climate Resilience Sustainability Data Points Across the Project Cycle

4.1.3 Social Sustainability

In relation to the project Social Sustainability, the CoST standards recommends publishing 12 elements as shown in **Table 4.3** and explained below.

c.1. Number of beneficiaries: number of direct and indirect project beneficiaries. Beneficiaries are the individuals who benefit directly or indirectly from the project; they are the target group of the infrastructure project, and their needs are addressed by the intervention (e.g. “5,000 direct beneficiaries from the construction of the water supply system”).

c.2. Inclusive design and implementation: specify whether gender, people with disabilities, and vulnerable and disadvantaged populations were considered in the project design and implementation, providing details on how the design and implementation practices meet inclusion goals (e.g. “As a result of the preparatory survey on this project, the following measures were planned as accessibility considerations: elevators accommodating the size of wheelchairs, gentle slope ramps in accordance with international standards connecting each floor, braille blocks and braille display boards and wheelchair-accessible multifunctional toilet on each floor. On gender, jobs were equitably distributed to both women and men, and employment records were disaggregated by sex and kept by contractor – <http://example.com/documents/employmentRecords.pdf>”).

c.3. Indigenous land: specify whether the project is located on or cuts through indigenous land. Use the LandMark Global Map, specifically the maps related to Indigenous Peoples’ Lands and Territories, Local Community Lands and Indicative Areas of Indigenous and Community Land Rights – <https://www.landmarkmap.org/map> – including data on areas Acknowledged by Government and Not Acknowledged by Government to publish the information (e.g. “The project is not located on indigenous or local community land”).

c.4. Public consultation meetings: occurrence of public meetings with communities and impacted groups, including meeting invite, the number of participants, dates and location of these meetings (e.g. “Number of participants: 30. Meeting date: 23/09/2023. Location: Project site – <http://example.com/documents/consultationMeetingMinutes.pdf>”).

c.5. Land compensation budget: budget allocated to fund land compensation (e.g. “US\$ 1,000,000”).

c.6. Land obligations: labour obligations in the construction contract. This can include, without limitation, the following: minimum wage; overtime; prohibition of forced labour; prohibition of child labour; equal opportunity; non-discrimination; freedom of association; grievance mechanism; working at height; underground work; handling of materials/equipment; monitoring of accidents; traffic management; accommodation; protective equipment; others (explain) (e.g. “The contract’s labour obligations include a minimum wage of \$20 per hour and an overtime limit of 10 hours per week – <http://example.com/documents/contractSigned.pdf>”).

c.7. Labour budget: amount allocated by the main contractor to cover labour costs (e.g. “US\$ 1,000,000”).

c.8. Workers’ accidents: summary statistics on accidents and fatalities involving construction workers, and an explanation of these events (e.g. “There were 2 fatal work injuries in 2024, with falls remaining a leading cause of injury”).

SOCIAL SUSTAINABILITY

- c.1. Number of beneficiaries
- c.2. Inclusive design and implementation
- c.3. Indigenous land
- c.4. Public consultation meetings
- c.5. Land compensation budget
- c.6. Labour obligations
- c.7. Labour budget
- c.8. Workers’ accidents
- c.9. Health and safety certifications
- c.10. Construction materials testing
- c.11. Building inspections
- c.12. Jobs generated

Table 4.3 Social Sustainability Data Points

c.9. Health and safety certifications: labour-related certifications issued in relation to project contractors and subcontractors, such as ISO 45001 for health and safety (e.g. "<http://example.com/documents/contractorHealthAndSafetyCertification.pdf>").

c.10. Construction materials testing: construction materials tests performed during project implementation. This can include, without limitation, the following: asphalt; aggregate and rock; bricks; cement; concrete; coarse and fine aggregate; masonry; metallic materials, mortar; plywood; timber; resin and polymer; soil; stone; others (explain) (e.g. "Tests were conducted of the steel frame and masonry of each structure according to ASTM International standards – <http://example.com/documents/materialTestResults.pdf>").

c.11. Building inspections: building inspections during project implementation (e.g. "During implementation, three inspections were conducted – <http://example.com/documents/buildingInspectionReport.pdf>").

c.12. Jobs generated: estimated and actual jobs (direct/indirect) during project implementation and estimated and actual jobs during operation (direct/indirect) (e.g. "The project will generate 412 full-time jobs during the construction phase of the project and up to 1,671 full-time jobs over a 10-year period post project completion and operation. Breakdown between direct/indirect not available".)

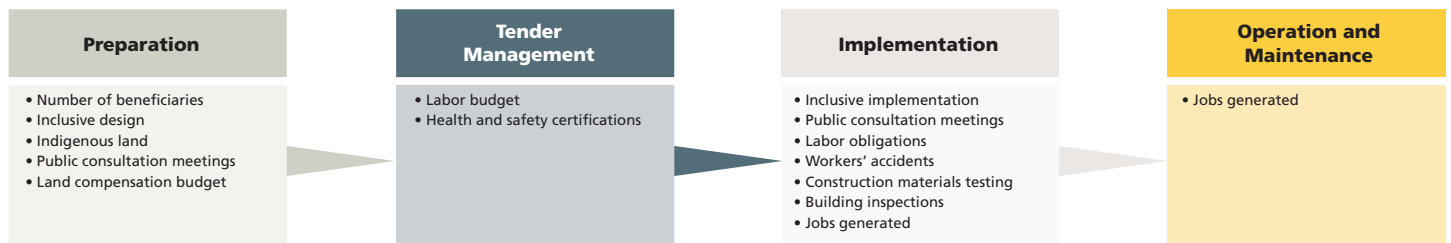


Figure 4.5. Social Sustainability Data Points Across the Project Cycle

4.1.4 Institutional Sustainability

In relation to the project Institutional Sustainability, the CoST standards recommends publishing 11 elements as shown in **Table 4.4** and explained below.

d.1. Policy coherence: documentation evidencing that the project is part of, or aligned with, existing plans and policies, providing further details on the project's policy alignment. Consider alignment with: SDGs; national plan or strategy; infrastructure plan or strategy; sector plan or strategy; procuring entity plan or strategy; Paris Agreement goals; Nationally Determined Contributions (NDCs); National Adaptation Plans; medium-term fiscal/budget frameworks; annual budgets; and pipeline of infrastructure projects (e.g. "The project is aligned with the Government's Vision 2040 and the Second National Development Plan 2015-2020 which focuses on physical infrastructure as one of the pillars to sustainable growth. The project is improving the quality of the local transportation systems, enhancing mobility and supporting the city's broader development goals, with a positive impact on the local economy. The project is included among the priority investments in the Strategic Plan 2020–2025").

d.2. Freedom-of-information requests: specify freedom-of-information (Fol) requests that have been presented in relation to the project. Note that Fol requests can also be known as access to information requests (e.g. "One freedom-of-information request was presented via the national access to information portal – <http://example.com/documents/foiRequest.pdf>").

d.3. Freedom-of-information answers: specify the responses provided by authorities to freedom-of-information (Fol) requests related to the project. Note that Fol requests can also be known as access to information requests (e.g. "No answers to freedom-of-information requests are recorded").

d.4. Lobbying transparency: specify the occurrence of meetings with interested groups, including the number of participants, date, location and minutes of these meetings, as well as the name and job title of the person representing the public office present at the meetings (e.g. "Participants: 4. Date: 23/09/2023. Subject: High-Speed Rail Line - Location Analysis. Attendees: Jane Smith (Senior Government Relations Manager, Infrastructure Alliance Consulting Firm), John Doe (CEO, Stonebridge Construction), Jenny Bloggs (Councillor, Infrastructure Committee, Mayor's Office), Joe Bloggs (Chief of Staff). Minutes not available").

d.5. Beneficial ownership: name the beneficial owners of the contractors and suppliers appointed in the project (e.g. "Ironclad Builders: Richard Doe").

d.6. Sustainability criteria: specify the presence of sustainable public procurement and non-price attributes in the award criteria (e.g. "Public Health Wales intends to reduce waste and CO₂ emissions as part of a contracting process to design office space and supply furniture. Fifteen per cent of the total evaluation score is allocated to non-price attributes. These covered the use of low-emission construction materials, energy-efficient equipment, and measures to minimise construction-phase waste.").

d.7. Anti-corruption certifications: anti-corruption certifications of the project, such as ISO 37001 on Anti-Bribery Management Systems Standard (e.g. "<http://example.com/documents/ISO37001Certification.pdf>").

d.8. Independent monitoring: name entities acting as independent monitors of the project (e.g. "Transparency International Greece is the Integrity Pact Monitor").

INSTITUTIONAL SUSTAINABILITY

- d.1. Policy coherence
- d.2. Freedom-of-information requests
- d.3. Answers to freedom-of-information requests
- d.4. Lobbying transparency
- d.5. Beneficial ownership
- d.6. Sustainability criteria
- d.7. Anti-corruption certifications
- d.8. Independent monitoring
- d.9. Performance monitoring
- d.10. Risk management plans
- d.11. Sustainable subsectors

Table 4.4 Institutional Sustainability Data Points

c.9. Performance monitoring: specify key performance indicators adopted by the project (e.g. “Labour productivity, percentage of tasks completed on schedule, community complaints resolved, number of accidents or near misses, and safety inspections completed”).

d.10. Risk management plans: documentation evidencing the preparation of risk management plans for the project (e.g. “<http://example.com/documents/riskManagementPlan.pdf>”).

d.11. Sustainable subsector: select from a list of subsectors relevant to the specific context, such as renewable energy (solar, wind, hydropower, biomass, geothermal). water and wastewater management, transport and low-carbon transport, natural resource management, flood protection (e.g. “Solar”).

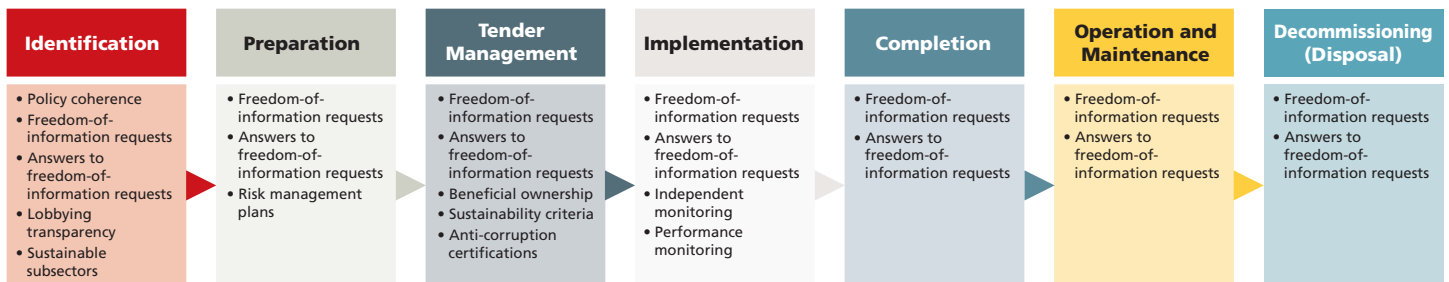


Figure 4.6. Institutional Sustainability Data Points Across the Project Cycle

4.2 CLIMATE FINANCE PROJECTS

Climate finance investments focus on achieving defined climate goals. It provides funding to both the public and the private sector for infrastructure projects intended to address climate change through mitigation, adaptation, or both.⁸

For climate finance investments, the CoST IDS and the OC4IDS new modules include data points across 6 stages of the project lifecycle, specifically related to climate change mitigation and adaptation projects. A simple Excel-based tool is available to help record the 33 data points of climate finance investments in infrastructure. Further details of the tool are presented in **Annex 8**, in the worksheets associated with climate finance.

A definition of each data point included in the climate finance module is provided below, with examples where relevant. Because publication is optional, these data points are considered a form of proactive publication. For ease of reference, **Figure 4.7** shows the data points grouped according to the corresponding stage of the project cycle.

e.1. Climate objective: the main climate objective that the project addresses from the list: mitigation; adaptation; cross-cutting (e.g. “Mitigation”).

e.2. Financial instrument: the financial instrument type from the list: loan (concessional / non-concessional); grant; equity; guarantees (e.g. “Concessional loan”).

e.3. Climate transformation: clarify the theory of change, systemic transition or transformation that is intended (e.g. “The project is expected to catalyse a transition from a diesel-based irrigation pump system to a solar system, reducing sector emissions”).

e.4. Climate finance decision-making: identify who approved the climate finance investment in the country (e.g. “The Ministry of Finance approved the allocation based on the climate investment strategy”).

⁸ See the definition of Climate Finance from Eurodad: “Climate finance refers to international financing that provides resources to developing countries to address climate change, and specifically to support mitigation and adaptation actions”.

- e.5. Nationally Determined Contributions:** clarify how the investment is aligned with the country's nationally determined contributions (e.g. "This project supports NDC target to reduce transport-sector emissions by 30% by 2030 through electric mobility").
- e.6. Paris Agreement:** clarify how the investment is aligned with the country's Paris Agreement commitments (e.g. "Consistent with Article 7 on enhancing adaptive capacity and reducing vulnerability").
- e.7. Beneficiaries:** who the climate finance investment is intended to benefit, and the number of beneficiaries. Beneficiaries are the individuals who benefit directly or indirectly from the project; they are the target group of the infrastructure project, and their needs are addressed by the intervention (e.g. "Approximately 72,000 residents in flood-prone areas expected to experience reduced disaster risk").
- e.8. Amount of investments:** the quantum of the climate finance investment (e.g. "USD 48 million").
- e.9. Funding source:** who is providing the finance (e.g. "Green Climate Fund").
- e.10. Green Climate Fund Accredited Entity:** for projects financed by the Green Climate Fund (GCF), disclose the accredited entities through which GCF resources are accessed (e.g. "Agency for Agricultural Development of Morocco").
- e.11. Accredited Entity Type:** the type of accredited entity, from the list: private; public; non-governmental; sub-national; national; regional; international (e.g. "National").
- e.12. Project preparation costs:** the amounts invested in project preparation (e.g. "USD 3.5 million").
- e.13. Project preparation period:** dates for project preparation – start date and end date (e.g. "01.07.2022 to 30.09.2023").
- e.14. Project approval period:** dates for project approval – submission date and approval date (e.g. "01.04.2024 and 01.10.2024").
- e.15. Ratio of co-finance:** clarify the ratio of co-finance. Select from the list to specify amounts: domestic mobilisations; private finance (e.g. "Domestic mobilisations: None; Private finance: None").
- e.16. Terms of climate finance:** clarify the financial instrument and on what terms the finance is being provided. This includes several financial terms: maturity (years); grace period (years); annual principal repayment years (% of initial principal); interest (%); service fee (per annum); commitment fee (per annum) (e.g. "Annual principal repayment years: 11-20% of initial principal. Interest: 6.7%. Service fee (per annum): 0.50%. Commitment fee (per annum): Up to 0.75%").
- e.17. Carbon efficiency:** the cost per tonne of CO₂ equivalent reduction attributed to the project (e.g. "USD 19 per tCO₂e of avoided emissions over the project lifetime").
- e.18. Non-climate co-benefits:** details on the potential non-climate impacts that have been factored into the project planning. This can comprise, without limitation, the following: economic, social, environmental, gender empowerment, and others (explain) (e.g. "Project expected to improve air quality by reducing particulate pollution and create 1,200 local jobs").
- e.19. Public consultation meetings:** clarify the occurrence of public meetings with communities and impacted groups, including the meeting invite, the number of participants, dates and location of these meetings (e.g. "Stakeholder forum held in three districts, with participation from flood-impacted residents – <http://example.com/documents/consultationMeetingMinutes.pdf>").
- e.20. Disbursement records:** clarify disbursement dates according to financial agreement versus actual disbursement dates (e.g. "Grant disbursement – Payment 1, dueDate: 2023-07-01, dateMet: 2023-08-01, amount: 5,000,000; currency: USD)."
- e.21. Type of project monitoring:** clarify the type of monitoring from the list: internal, external, mixed (e.g. "Mixed").

- e.22. Performance monitoring:** Key Performance Indicators adopted by the project (e.g. “KPI: Capacity utilisation”).
- e.23. Reporting period:** clarify the project reporting period. It could be quarterly, annual, or biannual (e.g., “Annual”).
- e.24. Oversight reports:** disclose oversight reports (e.g. “<http://example.com/documents/oversightReport.pdf>”)
- e.25. Independent monitoring:** identify the entities acting as independent monitors of the project (e.g. “Transparency International Greece”)
- e.26. Independent evaluation:** technical audits produced at the end of the project (e.g. “<http://example.com/documents/technicalAuditReport.pdf>”)
- e.27. Impact measurement:** clarify the methodology or system to measure the long-term impact of the project solution (e.g. “The long-term impact of this project will be measured according to annual assessment confirming reduction of flood-related service disruptions – <http://example.com/documents/impactMethodology.pdf>”).
- e.28. Carbon footprint:** clarify the carbon footprint of the project, including the calculation, the methodology applied, and where the calculation can be found. (e.g. “Operational footprint estimated at 3,800 tCO₂e per year – “<http://example.com/documents/ghgEmissions.pdf>”).
- e.29. Infrastructure assets to be decommissioned:** identify the asset for disposal purposes (e.g. “Three diesel generators to be decommissioned by 2040”).
- e.30. Decommission period:** intended start and end dates of decommissioning (e.g. “01/07/2040 to 30/06/2041”).
- e.31. Decommission plan:** the technical plan for decommissioning (e.g. “Three diesel generators to be decommissioned by 2040 – <http://example.com/documents/decommissioningPlans.pdf>”).
- e.32. Carbon decommissioning savings:** the evaluation of CO₂ savings as a result of decommissioning (e.g. “Retirement of fossil-fuel assets expected to avoid 18,000 tCO₂e – <http://example.com/documents/GhgEmissionsReduction.pdf>”).
- e.33. Decommissioning mitigation plan:** mitigation plan for people and communities affected by decommissioning (e.g. “<http://example.com/documents/mitigationplan.pdf>”)

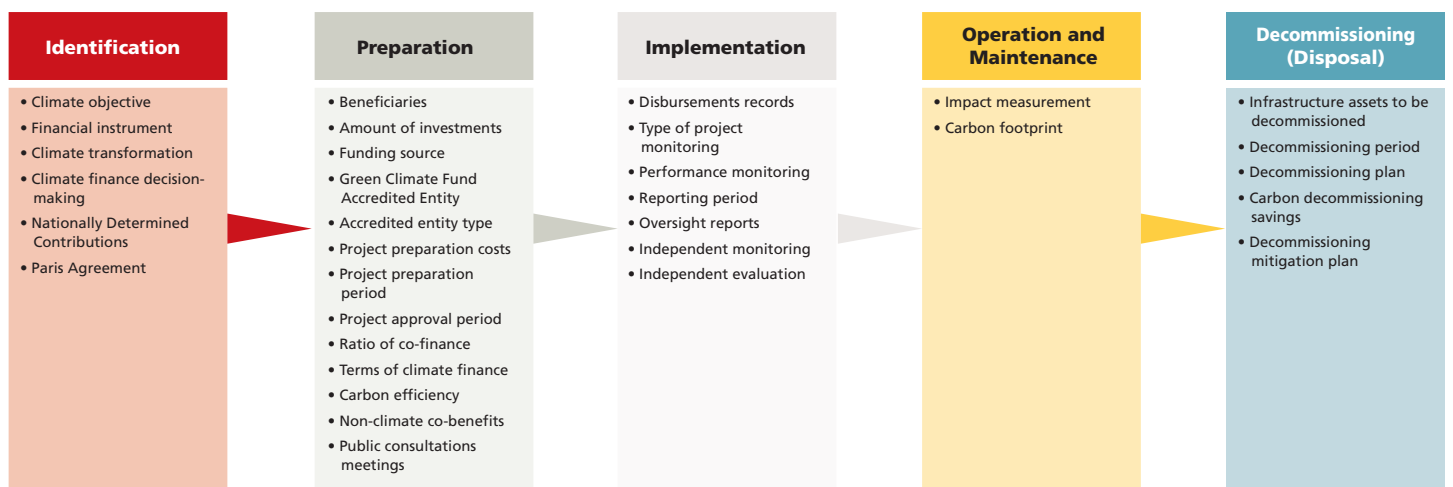


Figure 4.7 Climate Finance Data Points Across the Project Cycle

MALAWI INFORMATION PLATFORM FOR PUBLIC INFRASTRUCTURE (IPPI)

Malawi is leading the way by adapting its procurement portal, the Information Platform for Public Infrastructure (IPPI), to incorporate the climate finance module into its regular publication routine. By adding a keyword filter to identify climate-related investments as well as data points that specify each project's climate objectives (adaptation, mitigation, or cross-cutting) the new data points will enhance climate transparency and accountability. Procurement officials tend to lack a portfolio-wide view of infrastructure projects receiving climate finance, and citizens face numerous challenges linking infrastructure initiatives to dedicated climate funds. The implementation of the climate finance module will help address these limitations, enabling more effective monitoring of mitigation and adaptation goals.



5 Water-related data points

In collaboration with the Water Integrity Network (WIN), CoST identified and developed a set of 35 water-specific data points designed to strengthen transparency during the planning and decision-making stages of water infrastructure projects. These data points can be used alongside the core data standard to enable deeper analysis of how water projects are selected and prioritised.

Because publication is optional, these data points are considered a form of **proactive publication**. A definition of each data point included in the water module is provided below, with examples where relevant:

f.1. Number of beneficiaries: indicate the number of direct project beneficiaries. Beneficiaries are those who directly benefit from the project and whose needs the project addresses. If the information was not used during project appraisal, include "not considered in project appraisal" (e.g. "5,000 residents will directly benefit from the new water supply network").

f.2. Beneficiary population living under USD 5/day: indicate the percentage of the beneficiary population that lives under the threshold of USD 5/day. If the information was not used during project appraisal, include "not considered in project appraisal" (e.g. "50%").

f.3. Beneficiary population in informal settlements: indicate the percentage of the beneficiary population that lives in informal settlements. If the information was not used during project appraisal, include "not considered in project appraisal" (e.g. "50%").

f.4. Unserved population to be served by the project:

indicate the percentage of unserved population to be served by the project. If the information was not used during project appraisal, include "not considered in project appraisal" (e.g. "0.3% of currently unserved households will gain access to potable water").

f.5. Multidimensional poverty: indicate the percentage of poverty in the province/district where the project is developed. Use the latest Multidimensional Poverty Index to identify the percentage (e.g. "28%").

f.6. Water stress level: 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 (e.g. "High").

f.7. Drought risk: identify the water stress level recorded at the project location (e.g. "Low", "Low-Medium", "Medium-High", "High" and "Extremely High"). 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 (e.g. "Medium-High").

f.8. No-drinking water risk: identify the no-drinking water risk 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 (e.g. "High").

f.9. Distance to a similar facility: identify the distance (in kilometres) to a similar infrastructure facility (e.g. "100 km"). Google Maps and Google Earth can help identify similar facilities in the project vicinity (e.g., "85 km").

f.10. Funding approval date: the date the project's funding was approved and resources were assigned or reserved (e.g. "12 June 2022").

f.11. Project authorisation date: the date the project received a go-ahead order authorising its initiation (e.g. "30 September 2022").

f.12. Construction start date: disclose the date on which the construction works started (e.g. "14 March 2023").

f.13. Non-compliance with stipulated tender periods: instances of non-compliance with the procurement law in relation to bid submission, bid evaluation and contract award (e.g. "Bid submission: Delayed by 8 days; Bid evaluation: No delays; Contract award: Delayed by 12 days").

f.14. New or previous investment: identify whether the project relates to a new investment or an investment carried out from a previous government or administration (e.g. "New investment").

f.15. Lobbying transparency: the occurrence of meetings with interested groups regarding the project during project appraisal and planning, including the number of participants, dates and location of these meetings and disclosing the corresponding meeting minutes (e.g. "No records available").

f.16. Public consultation meetings: the occurrence of public meetings with communities, experts and other impacted groups regarding the project during project appraisal and planning, including the number of participants, dates and location of these meetings and the corresponding meeting minutes (e.g. "Three consultations held across affected communities, with 220 participants in total – <http://example.com/documents/consultationMeetingMinutes.pdf>").

f.17. Freedom-of-information requests: Freedom-of-information requests that have been presented in relation to the project (e.g. "Two requests submitted by civil society groups – <http://example.com/documents/foiRequest.pdf>").

f.18. Answers to freedom-of-information requests: the responses provided by authorities to freedom-of-information requests related to the project (e.g. "Two responses to freedom-of-information requests – <http://example.com/documents/foiResponses.pdf>").

f.19. Individuals involved in funding approval: specify the name and role of the individuals involved in instances of project funding approval. These are normally officials within the procuring entity or public financing bodies responsible for deciding whether a project receives funding. If the type of information is not available, please explain the reasons why there is no clarity on project approval roles (e.g. "Approval committee included the Executive Director of the Implementing Unit, the General Manager, the Technical Infrastructure Manager, the Contract Supervisor and the Head of Planning").

f.20. Conflict-of-interest in 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").

f.21. Beneficial ownership in funding approval: information on the registration of companies owned by individuals involved in instances of funding approval (e.g. "Beneficial ownership checks confirmed no ownership links between approving officials and contracting firms").

f.22. Environmental and social impact assessment: clarify whether and when the procuring entity conducted an environmental and social impact assessment, providing a copy of the assessment. If no environmental and social assessment was not developed during project appraisal, include "not considered in project appraisal (e.g. "An ESIA was completed in February 2023 – <http://example.com/documents/ESIA.pdf>").

f.23. 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. (e.g. "Category B").

f.24. Climate-adapted design: clarify whether the project design considered the impact of climate change. If climate impact was not considered during the project appraisal, include “not considered in project appraisal” (e.g. “Given frequent droughts in the region, the project uses solar energy to avoid reliance on water levels of local reservoirs”).

f.25. Gender-responsive and inclusive design: clarify whether there was an assessment of the project’s impact on women and vulnerable populations. If gender and inclusion were not considered during project appraisal, include “not considered in project appraisal” (e.g. “Design includes safe pedestrian access and lighting around water points to reduce risks for women and girls”).

f.26. Project brief or feasibility study: clarify whether and when the procuring entity conducted a Project brief or feasibility study, including documentation on net benefits or costs of the proposed goods, works or services, providing a copy of the study (e.g. “Feasibility study conducted on 23 April 2023 – <http://example.com/documents/feasibilityStudy.pdf>”).

f.27. Alternative analysis: clarify whether and when the procuring entity 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 (e.g. “Alternative analysis conducted on 23 April 2023 – <http://example.com/documents/alternativeAnalysis.pdf>”).

f.28. Cost-benefit analysis: clarify whether and when the procuring entity 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 (e.g. “Cost-benefit analysis conducted on 23 April 2023 – <http://example.com/documents/costbenefitAnalysis.pdf>”).

f.29. External appraisal: clarify whether and when the procuring entity 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 (e.g. “External appraisal conducted on 23 April 2023 – <http://example.com/documents/externalAppraisal.pdf>”).

f.30. Needs assessment: clarify whether and when the procuring entity 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 designed so that projects respond to population needs and prioritise what is most important (e.g. “Not considered in project appraisal”).

f.31. Asset lifetime: the expected lifetime of the asset. If the information was not used during project appraisal, include “not considered in project appraisal (e.g. “50 years”).

f.32. Investment plan: documentation that evidence that the project is part of an approved public investment plan. It can be a national, local, or strategic plan (e.g., “Project listed under the 2023–2030 National Water Security Plan”).

f.33. 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. (e.g. “New infrastructure”).

f.34. Project size: identify whether the project is categorised as large, medium or small (e.g. “Large”).

f.35. Budget breakdown: specify the budget allocated to the implementation, operation and maintenance of the project (e.g. Implementation: USD 18 million; Operation: USD 900,000/year; Maintenance: USD 550,000/year).

IDENTIFICATION	PREPARATION	TENDER MANAGEMENT	IMPLEMENTATION
<ul style="list-style-type: none"> • Number of beneficiaries • Beneficiary population living on less than USD 5/day • Beneficiary population in informal settlements • Unserved population to be served by the project • Multidimensional poverty • Water stress level • Drought risk • No drinking water risk • Distance to a similar facility • Funding approval date • Project authorisation date • New or previous investment • Lobbying transparency • Public consultation meetings • Freedom-of-information requests • Answers to freedom-of-information requests • Individuals involved in funding approval • Conflict-of-interest in funding approval • Project brief or feasibility study • Investment plan • New or pre-existing infrastructure • Project size 	<ul style="list-style-type: none"> • Lobbying transparency • Public consultation meetings • Freedom-of-information requests • Answers to freedom-of-information requests • Environmental and social impact assessment • Environmental impact category • Climate-adapted design • Gender-responsive and inclusive design • Alternative analysis • Cost-benefit analysis • External appraisal • Needs assessment • Asset lifetime • Budget breakdown 	<ul style="list-style-type: none"> • Non-compliance with stipulated tender periods • Freedom-of-information requests • Answers to freedom-of-information requests • Beneficial ownership in funding approval 	<ul style="list-style-type: none"> • Construction start date • Freedom-of-information requests • Answers to freedom-of-information requests

Figure 4.8 Water-related Data Points Across the Project Cycle

6 How data publication relates to other CoST pillars and functions

Data publication is a cornerstone of the CoST approach, but it does not operate in isolation. It is closely linked to other key CoST features that together enhance transparency, accountability, and the impact of infrastructure projects. These features include:

- **Independent review:** data publication is an essential prerequisite for the independent review to be possible. The review:
 - evaluates the extent to which data has been proactively published
 - requests data and documents subject to reactive disclosure
 - assesses the accuracy of what has been made available, both proactively and reactively
 - drawing on the totality of available data to identify and highlight issues of interest or concern.
- **Multi-stakeholder working:** this supports the design and implementation of publication processes by getting the scoping study, the CoST Infrastructure Transparency Index (ITI) results and findings from independent reviews endorsed by a multi-stakeholder process. This endorsement facilitates collaboration with relevant procuring entities to achieve meaningful progress in transparency and accountability.
- **Social accountability:** it is expected that stakeholders, including citizens' groups and the media, request and use data as well as the infrastructure analytical dashboards, the CoST ITI results and independent review reports. The information provided through publication routine analysis, periodic evaluations and related independent reviews may then be used by others within government with responsibility for official accountability mechanisms.

Coordination across CoST pillars maximises the value of published data. By leveraging the full suite of CoST tools in a coordinated manner, members can transform data into a powerful mechanism for transparency, accountability and continuous learning.

7 Annexes

Annex 1: Overview of available tools and other resources

Annex 2: A tool to map the data management processes and practices in procuring entities

Annex 3: A tool to help procuring entities in publishing project data and information

Annex 4: Examples of formal disclosure mandates

Annex 5: CoST GitHub Repository Guide

Annex 6: Example of terms of reference for an information technology developer team

Annex 7: Portal development workflow

Annex 8: Sustainable infrastructure and climate finance worksheets

Annex 1. Overview of available tools and other resources

A: Tools described in this manual.

These include tools referred to in the text. Some of them illustrated are available in Excel spreadsheets or Word format. Others are available only online, and the links to them are provided in the text of this manual.

B: Associated guidance note

Prepared in parallel with this manual, the updated [Guidance Note](#) provides a concise summary of the CoST data publication and data use. Another useful [Guidance Note](#) addresses Climate Finance infrastructure data. As such, they are an appropriate resource for providing a general overview to stakeholders who need a high-level introduction to the subject without going into detail.

C: Resources developed by individual CoST national programmes

In the course of their activities, various CoST national programmes have developed various tools and resources to support procuring entities in extending good practice and to ensure disclosure is conducted in a structured manner. Though often well regarded in the local context, these are not necessarily all suited for broader application. Some of the older manuals and resources may cross the line into activities that are inconsistent with the latest CoST thinking. If such manuals are referred to by other CoST national programmes, they should therefore first be critically reviewed and adapted where appropriate. This may for instance entail only using, or adapting, part of a tool, rather than applying all of it. Developed tools that can be considered as resources or as specific examples when implementing similar ones include the following.

- **Honduras:** Sustainable Infrastructure (InfraS). Open source available [here](#).

Annex 2. Tool to map data management processes and practices in procuring entities

This tool contains a matrix to help identify the current data management processes and practices applied by specific procuring entities. The purpose of the tool is to identify which data points and pieces of information are being generated and published. Additionally, it captures details on: where responsibility lies for publishing data and information, the format used, the timing, the existence of legal mandates and the publication channels used. Ideally it would be completed in a consultation meeting where different well-informed stakeholders, such as: public officials in charge of projects, information officers, procurement specialists, civil society organisations, private sector representatives, as well as by others with experience of publishing and using data and information.

[Click here to download the tool.](#)

Matrix to map data management process and practice								
PROCURING ENTITY:	FACILITATOR:			DATE:				
Project Identification	Source / Creator	Disclosed	Publisher	Format	Channel	Timing	Legal mandate	Remarks
Project reference number								
Project owner								
Sector, subsector								
Project name								
Project location								
Purpose								
Project description								
Project officials and roles								
Project brief or Feasibility study								
Project preparation	Source / Creator	Disclosed	Publisher	Format	Channel	Timing	Legal mandate	Remarks
Project Scope (main output)								
Environmental impact								
Land and settlement impact								
Contact details								
Funding sources								
Project Budget								
Project budget approval date								
Multi-year programme& Budget								
Environmental and social impact assessment								
Resettlement and compensation plan								
Financial agreement								
Procurement plan								
Project approval decision								
Tender Management	Source / Creator	Disclosed	Publisher	Format	Channel	Timing	Legal mandate	Remarks
Procuring entity								
Procuring entity contact details								
Procurement process								
Number of firms tendering								

Annex 3. Tool to help procuring entities in publishing project data and information

This tool serves as a template to help a procuring entity manage the disclosure of data and optional or additional information at each of the project and contract procurement stages set out in the CoST IDS. It should be applied up to the extent of applicable disclosure mandates. In the absence of such mandates, the source of guidance regarding scope should be a voluntary agreement entered into after completion of a mapping exercise addressing data management processes and practices.

[Click here to download the tool.](#)

Template for proactive publication of data			
DATE:	LAST UPDATE:		
Project stage	Element	Data	Links if any
Project Identification (7)	Project reference number		
	Project owner		
	Sector, subsector		
	Project name		
	Project location		
	Purpose		
	Project description		
Project Preparation (7)	Project Scope (main output)		
	Environmental impact		
	Land and settlement impact		
	Contact details		
	Funding sources		
	Project Budget		
	Project budget approval date		
Tender Management (14)	Procuring entity		
	Procuring entity contact details		
	Procurement process		
	Number of firms tendering		
	Cost estimate		
	Contract type		
	Contract administration entity		
	Contract title		
	Contract firm(s)		
	Contract price		
	Contract scope of work		
	Contract start date		
	Contract duration		
	Contract status (current)		
Implementation (6)	Variation to contract price		
	Escalation of contract price		
	Variation to contract duration		
	Variation to contract scope		
	Reasons for price changes		
	Reasons for scope and duration changes		
Project Completion (6)	Project status (current)		
	Completion cost		
	Completion date		
	Scope at completion		
	Reasons for project changes		
	Reference to audit and evaluation reports		
Instructions: Enter data into pale cells per each project. Click on cells for further instructions. NA indicates non applicable.			

Annex 5. CoST GitHub Repository Guide

This tool is intended to CoST member secretariats, their partners and IT developer teams to facilitate the documentation process of digital solutions that have proven to work in specific contexts and have the potential to be replicated.

[Click here to download the tool.](#)

Annex 4. Examples of disclosure mandates

These examples are intended to help CoST member secretariats and multi-stakeholder group members identify different approaches, types and content of disclosure mandates based on CoST member experiences in Honduras, Guatemala and Malawi.

[Click here to download the tool.](#)



Annex 6. Example of terms of reference for an information technology developer team

This tool, which also includes a template, is intended to help a CoST member secretariat and its partners write terms of reference for developing and implementing an online disclosure platform based on the OC4IDS.

[Click here to download the tool.](#)

Annex 7. Portal development workflow

Tool to help guide the development of an OC4IDS-compliant infrastructure transparency portal.

[Click here to download the tool.](#)

Annex 8. Sustainable infrastructure and climate finance worksheets

Tool to help evaluate the completeness of Sustainability and Climate Finance Data Points.

[Click here to download the tool.](#)

The screenshot displays a dashboard interface for the CoST Infrastructure Transparency Initiative. On the left, a 'Summary of sheets' section lists 16 categories, with items 11 through 16 enclosed in a red dashed box. On the right, an 'INSTRUCTIONS' section provides guidance on navigating the dashboard, entering data in sheets, returning to the dashboard, and restrictions/protections.

Summary of sheets

- 1. ACTS Risk Mapping
- 2. Proactive Completeness
- 3. Proactive Disclosure Rate
- 4. Proactive accuracy
- 5. Proactive PE response
- 6. Reactive PE response
- 7. Assessment of processes
- 8. Status of recommendations
- 9. Post assurance summary
- 10. Tender management
- 11. Economic Sustainability
- 12. Social Sustainability
- 13. Institution Sustainability
- 14. Environment Sustainability
- 15. Climate Finance
- 16. Linear Progress

INSTRUCTIONS

Navigating the Dashboard

- 1 Click on a button on the left side of the Dashboard to open the corresponding sheet.
- 2 Only the selected sheet and the Dashboard will remain visible – all other sheets are hidden.
- 3 Sheets in green are optional and relate to the **Sustainability** aspects. At the bottom of the Sustainability sheets, you can navigate to the data dictionary describing the details of each data point using the **Sustainability Data dictionary** button at the bottom of this dashboard.
- 4 The **Linear Progress** monitoring tool presented here is illustrative and will need to be adjusted for project details. It is mainly intended for advanced users, but feel free to explore it if you're curious!

Entering Data in Sheets

- 1 Each sheet contains input fields for required data.
- 2 Red-colored cells indicate required inputs.
- 3 Select any cell within the sheet to view a description of the required data input. Each cell includes a tooltip or note to provide guidance on what type of information should be entered.
- 4 Once all data is entered, results will update automatically.

Returning to the Dashboard

- 1 The Dashboard sheet remains visible when you have navigated to a separate sheet. Select the Dashboard sheet at the bottom of the page

Restriction and Protections

- The Dashboard is protected to prevent accidental edits.
- You can navigate using buttons but cannot edit the layout.

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