

2023 OECD Survey on the Governance of Infrastructure

Background

With the approval of the [OECD Recommendation on the Governance of Infrastructure](#), the OECD Secretariat started working towards the development of Indicators on the Governance of Infrastructure (IGIs). This initiative resonates with a general call for evidence in the infrastructure governance field. The IGIs aim at helping countries improve infrastructure governance through rigorous assessment of government capabilities, strengths and key areas for improvement. They will help countries self-assess their performance in each of the ten pillars included in the Recommendation as well as on cross-cutting themes such as environmental sustainability and climate resilience, and highlight areas that require more attention.

In collaboration with the OECD Senior Infrastructure and PPP Officials Network (SIP), the Secretariat has implemented two phases of the IGIs in 2021 and 2022, covering seven of the ten pillars of the Recommendation and the cross-cutting topic of environmentally sustainable and climate-resilient infrastructure. The data used were collected from the 2020 and 2022 surveys on infrastructure governance and are available in the OECD Government at a Glance [2021](#) and [2023](#) databases. The conceptual framework, design, methodology and results from the two phases have been shared and discussed in depth with experts and public officials from the SIP Network and the OECD Working Party of Leading Practitioners on Public Procurement (LPP). They have been published in the [OECD Infrastructure Governance Indicators](#) working paper and the [2023 Government at a Glance](#) publication.

The data collected through the 2023 edition of the survey will provide the basis for the implementation of the third phase of the IGIs. The Secretariat is interested in surveying countries on current practices and procedures on infrastructure governance. The general objective of this survey is to provide international comparative analysis, benchmarking of best practices, monitor change of governance of infrastructure practices in OECD countries over time. More specifically, the survey will collect data on country practices related to asset performance throughout its life and climate-resilient infrastructure. Following validation of the results, the raw data collected through this survey will be made publicly available.

Objectives

The 2023 Survey on the Governance of Infrastructure aims to:

- Gather information with respect to asset performance throughout its life and climate-resilient infrastructure;
- Gather information on how countries organise their infrastructure governance framework, i.e., the institutional roles, procedures, assessment tools and related issues;
- Gather information that will help governments self-assess the adequacy of countries' good governance practices;
- Support evidence-based policymaking, by collecting good practices and accurate and comparable country-level data.

We are aware of the different institutional set-ups across OECD countries. Kindly answer the survey with the national set-up in mind. If the questions in the survey do not entirely fit with the country's institutional context, choose the answer that fits best and provide additional clarifications in the comment boxes that have been included at the end of each section.

Structure of Questionnaire

Section A: Policies and tools for managing asset life cycle

Section B: Data collection and capacity building for asset management

Section C: Financial management of assets

Section D: Climate-resilient infrastructure

Glossary

The glossary will be shared with the survey invitation. In the survey, an asterisk will mark terms included in the glossary. Upon hovering your mouse pointer over the terms, definitions will be displayed as popup text. It is possible that some of the terms used in this survey may not exactly match - or may not be applicable - to the particular context in your country. In such cases, please use the comments section (or other space provided) to specify the terminology used in your country and clarify your choice of response. This additional clarification will enhance comparability and data quality.

How to complete the survey

- Countries are kindly asked to answer all the questions on LimeSurvey. If you do not have an immediate answer (i.e., cannot easily obtain the necessary information, or if the question does not apply to your country), please choose the answer that fits best and provide additional clarifications in the comment boxes that have been included at the end of each section.
- Please note that the survey monitors policies and arrangements currently in place (i.e., during the survey implementation) at the national/federal level and does not cover practices at subnational levels. Policies and arrangements in the process of development can be specified in the comment boxes as additional information.
- You can navigate through the different sections using the question index displayed in the top right corner.
- In case you cannot complete the survey in one sitting or would like to share the responsibility of responding with other colleagues, please use the "Resume Later" button at the bottom of each page, which will automatically save your answers for the given page. You, or other officials, can then return to the partially completed survey at a later time before the deadline.
- Once you have completed the survey, click on the "Finish" button, which will save and submit your answers, together with an automatically generated email, which summarises your responses.
- Please note that LimeSurvey does not support Internet Explorer. Using more modern browsers to work in the survey minimises the risk of losing data or encountering technical difficulties.

Deadline

Please answer the questionnaire by **December 8, 2023**.

OECD contact

If you have any queries about the content of this questionnaire, please contact the OECD Secretariat at the Infrastructure and Public Procurement Division (govinfoipp@oecd.org).

Contact details

[CD1] Country *

Please write your answer here:

[CD2] First name *

Please write your answer here:

[CD3] Last name *

Please write your answer here:

[CD4] Institution *

Please write your answer here:

[CD5] Position *

Please write your answer here:

[CD6] Division/Unit *

Please write your answer here:

[CD7] Email *

Please write your answer here:

Please provide a valid email address. An automatically generated email summarising your responses will be sent to this email address.

Section A: Policies and tools for managing asset life cycle

[Q1] In order to calculate life cycle costs*, does your country include the following? *

Please choose **all** that apply:

- Upfront costs for purchasing a new asset or related resource, such as land
- Costs incurred to operate the service (such as service payments, lease payments, personnel costs which would not otherwise be incurred)
- Preparatory costs related to undertaking the project, such as economic analysis, feasibility studies and obtaining environmental approvals
- Expenditure required across the life cycle for maintenance and renewals
- Decommissioning and disposal costs
- No

[Q2] Does your country apply any of the following concepts when determining the lifespan* (in years) of an asset? *

If you choose 'Other (please specify)' please also specify your choice in the accompanying text field.

Please choose **only one** of the following:

- Operational life (the period that the asset can meet its service requirements)
- Physical life (the period that the asset can operate without irretrievably failing)
- Economic life (the period that the asset is the most economic option for delivering a required service)
- No
- Other (please specify)

[Q3] Does your country provide financial (e.g., co-financing arrangements) or non-financial (e.g., methodologies, tools or guidance) support to promote the calculation of life cycle costs* of infrastructure projects? *

Please choose **only one** of the following:

- Yes
- No

Please specify the type of support provided, including relevant weblinks and/or references:

[Q4] Does your country include sustainability savings (e.g., lower energy consumption, social and environmental impact such as climate change) in order to calculate life cycle costs*? *

Please choose **only one** of the following:

- Yes

- No

Please provide additional information on the methodologies used, including relevant weblinks and/or references:

[Q5] Are there mechanisms to monitor and evaluate the realisation of estimated benefits throughout the infrastructure life cycle? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information on the mechanisms used, including relevant weblinks and/or references:

[Q6] Does your country quantify the ex post impact of infrastructure projects on one or several Sustainable Development Goals (SDGs)? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information, including relevant weblinks and/or references:

[Q7] Is it a standard practice to factor life cycle costs* (including operation and maintenance costs) in the appraisal and selection of infrastructure projects? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

[Q8] Does your country require Asset Management Plans* under law or regulation? *

Please choose **only one** of the following:

- Yes
- No

[Q9] Does your country set compulsory **sectoral** requirements (e.g., in law or regulation) that infrastructure providers must follow on any of the following? Please specify the sectors, providing additional information, relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Design standards (e.g., specifications for how assets need to be maintained in order to meet standards, such as for resilience* or low emissions)
- Quality of inputs (e.g., whether construction materials and other inputs to asset maintenance comply with standards, such as each input's amount of embodied carbon emissions)
- Service quality levels (e.g., levels at which assets must perform to serve citizens, such as traffic volume numbers, quantity of sewerage flow)
- No

[Q10] Do design standards specify life cycle cost* optimisation? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

[Q11] Does your country set compulsory **general** requirements (e.g., in law or regulation) that infrastructure providers must follow on any of the following? Please provide additional information, including relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Environmental efficiency (e.g., measures of environmental performance, such as capacity to renew biodiversity, air quality, noise volume output, soil quality measures, etc.)
- Emissions output (please specify the type of emissions and the life cycle stages concerned i.e., operational and/or embodied)
- Resilience*
- Performance monitoring (e.g., oversight and monitoring of the performance of assets against performance standards)
- No

[Q12] Does your country provide non-binding **sectoral** guidelines to infrastructure providers on any of the following? Please specify the sectors, providing additional information, relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Design standards (e.g., specifications for how assets need to be maintained in order to meet standards, such as for resilience* or low emissions)
- Quality of inputs (e.g., whether construction materials and other inputs to asset maintenance comply with standards, such as each input's amount of embodied carbon emissions)
- Service quality levels (e.g., levels at which assets must perform to serve citizens, such as traffic volume numbers, quantity of sewerage flow)
- No

[Q13] Does your country provide non-binding **general** guidelines to infrastructure providers on any of the following? Please provide additional information, including relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Environmental efficiency (e.g., measures of environmental performance, such as capacity to renew biodiversity, air quality, noise volume output, soil quality measures, etc.)
- Emissions output (please specify the type of emissions and the life cycle stages concerned i.e., operational and/or embodied)
- Resilience*
- Performance monitoring (e.g., oversight and monitoring of the performance of assets against performance standards)
- No

[Q14] Is asset performance continually monitored against predefined service delivery targets and expected outcomes? *

Please choose **only one** of the following:

- Monitored against predefined service delivery targets and expected outcomes
- Monitored but not against predefined delivery targets and expected outcomes
- No

Please specify the tools used, including relevant weblinks and/or references:

[Q15] Does your country use InfraTech* solutions to monitor asset performance? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

Please specify the types of projects and/or sectors, including relevant weblinks and/or references:

[Q15a] Which InfraTech* solutions does your country use to monitor asset performance? *

Please choose **all** that apply:

- Building Information Modelling*
- Digital Twins*
- Robotics and unmanned aerial vehicles (e.g., drones)
- None
- Other (please specify):

[Q16] Does your country use predictive maintenance* to extend the life of the asset while ensuring efficient budget allocation? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

Please specify the types of projects and/or sectors, including relevant weblinks and/or references:

[Q17] Do infrastructure providers complete demand forecasting under a range of future scenarios? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

Please provide additional information, including relevant weblinks and/or references:

[Q18] Does your country use demand management strategies and/or non-built solutions (e.g., user charges, peak-period pricing, congestion charges, water meters, investment in prevention of crime or health issues) to respond to changes in infrastructure demand? *

Please choose **only one** of the following:

- Yes, for all projects

- Yes, for certain projects/sectors
- No

Please provide additional information, including relevant weblinks and/or references:

[QA] Please use this space to provide additional comments, relevant weblinks and/or references in relation to answers provided in this section, if needed.

Please write your answer here:

Section B: Accountability and professionalisation in asset management

[Q19] Does your country require infrastructure providers to publicly report on a consistent set of asset management measures, which are subject to external audit or scrutiny? *

Please choose **only one** of the following:

- Yes
- No

[Q20] On which of the following criteria is your infrastructure audited during its operational life? *

Please choose **all** that apply:

- Legal and financial compliance (e.g., whether asset management practices comply with legal and financial regulations)
- Financial performance
- Non-financial performance (e.g., service quality targets, sustainability criteria)
- None

[Q21] Does your country require infrastructure providers to undertake and publicly report on the results of a periodic independent asset management maturity review/assessment? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information, including relevant weblinks and/or references:

[Q22] Are fixed asset registers maintained or consolidated* centrally? *

Please choose **only one** of the following:

- Yes, they cover all government fixed assets
- Yes, they cover most government fixed assets
- There is no centralised register of fixed assets

[Q23] Are fixed asset registers verified and updated at least every two years? *

Please choose **only one** of the following:

- Yes
- No / There is no centralised register of fixed assets

[Q24] Does your country collect the following types of data about asset management at least every 2 years? *

Please choose **all** that apply:

- Asset condition data
- Asset performance data
- Financial data
- Maintenance data
- None of the above

[Q25] If your country collects any type of data about asset management listed in the previous question, please specify how the information is used. *

Please choose **all** that apply:

- Make it available to infrastructure owners to inform long-term planning, asset management and maintenance needs
- Analyse the overall quality and quantity of the country's infrastructure stock
- Inform budgeting processes and financial analysis
- Provide the private sector with visibility of future capital investment and maintenance opportunities
- Make it available for public consumption
- None of the above

[Q26] What opportunities exist in your country that are freely available for asset managers to upskill in the most recent asset maintenance methods and techniques? Please specify if these opportunities are sector-specific, the sectors concerned, and the topics covered. *

Please choose all that apply and provide a comment:

- On-the-job training
- Formal learning (e.g., university, training institute, other education provider)
- Opportunities to share best practice organised by professional bodies
- None

[Q27] What opportunities exist in your country that are freely available for asset managers to learn about recent changes to policy, regulation and standards? Please specify if these opportunities are sector-specific, the sectors concerned, and the topics covered. *

Please choose all that apply and provide a comment:

- On-the-job training
- Formal learning (e.g., university, training institute, other education provider)
- Opportunities to share best practice organised by professional bodies
- None

[QB] Please use this space to provide additional comments, relevant weblinks and/or references in relation to answers provided in this section, if needed.

Please write your answer here:

Section C: Financial management of assets

[Q28] Does your country have a mechanism to report the financial value of physical assets and liabilities? *

Please choose **only one** of the following:

- Yes, accrual* financial statements*/other forms of consolidated* financial reporting*
- Yes, but there is no consolidated* financial reporting*
- No

Please provide additional information, including relevant weblinks and/or references:

[Q29] Are the following assets and liabilities included in the financial reporting*? *

Please choose **all** that apply:

- Buildings
- Infrastructure assets, excluding PPPs*
- PPP* assets and liabilities
- No

[Q30] Are the financial data of physical assets and liabilities (e.g., amortised cost, depreciation) reported regularly updated? *

Please choose **only one** of the following:

- Yes
- No

[Q31] Are the financial data of physical assets and liabilities reported made public? *

Please choose **only one** of the following:

- Yes
- No

[Q32] Are the financial data of physical assets and liabilities reported used for funding or investment planning for asset maintenance? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information, including relevant weblinks and/or references:

[Q33] Does your country require infrastructure providers to identify current and planned funding shortfalls, including identifying funding (or other) strategies for how shortfalls will be addressed? *

Please choose **only one** of the following:

- Yes
- No

[Q34] Are the following funding instruments available to support investment in infrastructure maintenance? *

Please choose **all** that apply:

- Grants and subsidies

- New forms or applications of taxes (e.g., environmental taxes, tourism taxes, taxes allocated to transport projects)
- User charges and fees
- Land value capture instruments (e.g., developer obligations, transferable development rights, property taxes)
- Long-term revenue generation from existing assets (e.g., asset leasing, asset recycling)
- None of the above

[QC] Please use this space to provide additional comments, relevant weblinks and/or references in relation to answers provided in this section, if needed.

Please write your answer here:

Section D: Climate-resilient infrastructure

[QS1] Does your country have a national strategy or policy document that aims to improve resilience* of infrastructure (e.g., national adaptation strategy)? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information, including relevant weblinks and/or references:

[QS2] Does your country use climate-informed feasibility studies to ensure projects are designed and engineered to address anticipated climate-related risks (e.g., physical risks such as water scarcity, increased storm intensity, heat impacts, transition risks such as the impact of resource efficiency, use of low-emission technologies or renewable energy) over various time horizons? *

Please choose **only one** of the following:

- Yes, for all projects
- Yes, for certain projects/sectors
- No

Please provide additional information, including relevant weblinks and/or references:

[QS3] Does your country have mechanisms for management and reporting of climate-related risks (e.g., physical risks such as water scarcity, increased storm intensity, heat impacts, transition risks such as the impact of resource efficiency, use of low-emission technologies or renewable energy) during construction, operations and maintenance? Please provide additional information, including relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Yes, during the construction stage
- Yes, during the operations and maintenance stage
- No

[QS4] Does your country have methodologies and/or guidelines to assess, quantify, or measure climate-related costs and benefits, including realised savings from enhanced resilience* during construction, operations and maintenance? Please provide additional information, including relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Yes, during the construction stage
- Yes, during the operations and maintenance stage
- No

[QS5] Does your country have methodologies for valuing and monetising the costs and benefits of disaster resilience* (e.g., user-related costs, injury/loss of life, repair/reinstatement, environment, essential services, indirect impacts such as impacts to non-users, disaster preparedness, wider economic benefits) in infrastructure projects? *

Please choose **only one** of the following:

- Yes, and it informs project selection and prioritisation
- Yes, but it does not inform project selection and prioritisation
- No

Please provide additional information, including relevant weblinks and/or references:

[QS6] Does your country use assessment methodologies to conduct comparative assessments based on climate resilience* between alternative infrastructure solutions (e.g., grey infrastructure solution compared with green and/or hybrid infrastructure solutions)? *

Please choose **only one** of the following:

- Yes
- No

Please provide additional information, including relevant weblinks and/or references:

[QS7] Has your country established climate resilience* outcomes for infrastructure assets and networks? Please provide additional information, including relevant weblinks and/or references. *

Please choose all that apply and provide a comment:

- Yes, within sectors
- Yes, at the central level (across sectors)
- Yes, at sub-national levels
- No

[QS8] Does your country have in place a process for reporting on the progress made and results achieved on the climate resilience* outcomes for infrastructure assets and networks referred to in the previous question? *

Please choose **only one** of the following:

- Yes, there is annual/biennial reporting in place
- Yes, reporting is done on an ad hoc basis or over a longer period time
- No

[QS9] Does your country provide and require professional training on the latest standards and methods of resilient* engineering designs amongst public works professionals (e.g., standards for protection from seismicity, floods, landslips, cyber attacks, terrorism and other forms of risk events; methods for designing infrastructure assets that can withstand, to an agreed level, the impact of such risk events)? *

Please choose **only one** of the following:

- Yes, and profession training is required
- Yes, but professional training is not required
- No

Please provide additional information on the type of training, sectors concerned and topics covered, including relevant weblinks and/or references:

[QD] Please use this space to provide additional comments, relevant weblinks and/or references in relation to answers provided in this section, if needed.

Please write your answer here:

Examples of best practices

[QE] As part of the implementation of the OECD Recommendation on the Governance of Infrastructure, we are identifying examples of best practices that can illustrate how the ten key dimensions of the Recommendation are put into practice by OECD countries. These examples will be part of a repository of best practice case studies that will be published in the [OECD Infrastructure Toolkit](#). It will be an interesting opportunity to showcase reforms and efforts implemented by your country to other OECD countries and international organisations in the field. Please use the following space to provide more information on the best practices related to **asset performance throughout its life** and **climate-resilient infrastructure** in your country that you would like to highlight.

Please write your answer here:

Many thanks for completing the 2023 OECD Survey on the Governance of Infrastructure. You will soon receive an automatically generated email summarising your responses. If you have any queries about the content of this questionnaire or the answers provided, please contact the OECD Secretariat at the Infrastructure and Public Procurement Division (govinfoipp@oecd.org).