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Public-Private Partnerships and Infrastructure Evaluation and Rating System (PIERS): An Evaluation Methodology for the Sustainable Development Goals

Revised note by the Bureau of the Working Party on Public-Private Partnerships

Background

This document contains the Public-Private Partnerships (PPP) and Infrastructure Evaluation and Rating System (PIERS): An Evaluation Methodology for the Sustainable Development Goals (SDGs) (PIERS) developed in two phases with the substantive contribution of international multidisciplinary experts[1] and with the support of the secretariat.

Phase I of the project was developed in 2020 by an international Project Team and was concluded in December 2020 with the Working Party on PPPs warmly welcoming the first draft (ECE/CECI/WP/PPP/2020/2) as an excellent basis going forward. The Working Party also encouraged its dissemination and use during Phase II of its development in 2021 pursuant to a plan of action (Annex II of ECE/CECI/WP/PPP/2020/3/Rev.1).

Phase II started in January 2021 and was concluded in September 2021.

Key milestones during the Phase II in 2021:

- 19 responses to a survey among Governments users to obtain their views on PIERS;
- 31 projects in different sectors from 20 countries tested using the testing protocol;
- Two events held to solicit feedback on PIERS:
    1. A technical discussion organised during the 5th edition of the UNECE International PPP Forum (26 April 2021); and
    2. A policy discussion organised at the fourteenth session of the Committee on Innovation, Competitiveness and Public-Private Partnerships (4 June 2021).

[1] The process of selecting experts in the preparation of this document has been guided by the guidelines as set out in document ECE/CECI/WP/PPP/2018/10 on the selection of reliable and independent experts.

The "Building Back Better infrastructure award" organised by the secretariat at the 5th edition of the UNECE International PPP Forum (22 April 2021) provided an incentive to Governments and other stakeholders to use PIERS on the projects competing for the award and provide feedback on its improvement.

The document was originally published on 1 October 2021 in ECE/CECI/WP/PPP/2021/3, and was endorsed by the Working Party on PPPs at its fifth session in November 2021 and was subsequently adopted by the Committee at its fifteenth session in May 2022.

This document is being reissued pursuant to decisions by the Committee at its fifteenth session on 25-27 May 2022[2] and the Working Party on PPPs at its sixth session on 1-2 December 2022.[3]

The Bureau is grateful to the experts[4] (listed in Annex I) for their contribution.[5]

[2] Decision 2022 – 4b.2 (ECE/CECI/2022/2): Regarding the continued use of the name "People-first PPPs for the SDGs", the Committee took note of the results of the information consultations conducted with interested delegations on the matter since the fifth session of the Working Party on PPPs in November 2021, and decided to:

(i). Change the name to "PPPs for the SDGs"; and

(ii). Progressively reissue the documents endorsed and adopted by the Committee and the Working Party on PPPs to reflect i. above within the document quota allocated to the ECI subprogramme and without incurring additional costs.

The Committee requested the secretariat to reissue three core documents within twelve months, and the rest of the documents within three years. The Committee requested the Bureau of the Working Party on PPPs to decide on which non-core documents should be prioritised during this period. Note: the three core documents are: Guiding Principles on People-first PPP in support of the UN SDGs (ECE/CECI/2019/5); Introduction to People-first PPPs in support of the UN SDGs (ECE/CECI/2019/6); and the People-first PPP Evaluation Methodology for the SDGs (ECE/CECI/WP/PPP/2021/3)

[3] Decision 2022 – 4.4 (ECE/CECI/WP/PPP/2022/1): The Working Party:

1. Recognising the need for a more marketable name for the UNECE PPP Evaluation Methodology for the SDGs, agreed with the Bureau recommendation to rename the Evaluation Methodology as "UNECE PPP and Infrastructure Evaluation and Rating System (PIERS): An Evaluation Methodology for the SDGs"; and
2. Noted that the Evaluation Methodology will be reissued in early 2023 to reflect 1 above and the Committee's decision 2022 – 4b.2 (ECE/CECI/2022/2).

[4] The UNECE draws attention to the possibility that the practice or implementation of this document may involve the use of a claimed intellectual property right (IPR). This document is based on the contributions of various experts, who have acknowledged that all new IPRs generated belongs to the UNECE and have also agreed to waive enforcement of their existing IPRs used in this document against any party using it.

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[5] In particular, the Bureau is grateful to the three co-chairs of the Project Team involved in Phase I, Ms. Melissa Peneycad, Mr. Joan Enric Ricart and Mr. James Stewart, and to Mr. Marc Frilet for his contribution in Phase II.

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I. Avant propos

A new approach to Public-Private Partnerships (PPPs) is needed

The Sustainable Development Goals (SDGs) call for different forms of partnerships, including PPPs as a tool to close the infrastructure gap …

Trillions of US dollars are needed across a wide spectrum of infrastructure and Governments by themselves do not have the resources to deliver on these projects. This is especially true of the low and middle-income countries.

… but the complexity in the design and management of these long-term public–private arrangements also presents some limitations and challenges …

These challenges and limitations of PPPs are important to bear in mind when analysing the potential of PPPs to promote sustainable development. In order to realize their social value beyond their economic value, PPPs need to be "fit for purpose". That means PPPs moving from being a mere financing tool to becoming an instrument that also provides "value for people" and "value for the planet".

… which require a new approach consistent with the SDGs.

In this context, the United Nations Economic Commission for Europe (UNECE) has developed the PPPs for the SDGs approach and the 10 Guiding Principles on PPPs in support of the SDGs[6] to provide a model that will foster access to essential public services for all with sustainable development as its objective and putting people at the core.[7]

PIERS as a compass for Public-Private Partnerships for the Sustainable Development Goals

Launching a new approach to PPPs requires new tools to evaluate the impact of PPPs …

The UNECE has spearheaded a movement towards a new approach of PPPs called "PPP for the SDGs" and in this regard, it has argued for a mechanism to evaluate and score infrastructure and PPP projects and to determine the extent to which they meet the PPP for the SDGs designation.

… that can measure impact and score projects including both infrastructure projects and PPPs for the SDGs …

PPPs for the SDGs are defined in the Guiding Principles and are summarised according to five specific outcomes: access and equity; economic effectiveness and fiscal sustainability; environmental sustainability and resilience; replicability; and stakeholder engagement. In view to implement the Guiding Principles, these generic outcomes have been carefully analysed, and criteria and indicators were elaborated and added that can be scored to assess the extent to which projects meet the PPPs for the SDGs designation.

… and fully implement the Guiding Principles …

The whole purpose of PIERS is to implement the Guiding Principles in their entirety.

… using PIERS to foster improvements in the projects themselves.

It is important that PIERS is used to improve projects. Some projects will be evaluated and might not meet the PPPs for the SDGs designation. But users of PIERS – typically

[6] The documents are available at: https://unece.org/sites/default/files/2022-10/ECE_CECI_WP_PPP_2022_06-en.pdf and https://unece.org/sites/default/files/2022-11/ECE_CECI_WP_PPP_2022_07-en.pdf

[7] The Guiding Principles have defined PPPs for the SDGs as follows: *"PPPs* for the SDGs*" can be perceived as a type of Public-Private Partnerships (PPPs) designed to implement the Sustainable Development Goals and thereby to be "fit for purpose". It is defined as an enhanced approach for PPPs that overcomes some of the weaknesses in the way the traditional PPP model has been implemented. PPPs are contract delivery tools for public infrastructure provision involving initial private financing. They include two types: "government-pay PPPs" which are primarily funded by taxpayers and "concessions" which are primarily funded by the users of the infrastructure."*

governments – can adjust their projects accordingly. In addition, realistically few projects can deliver on each of the five rather specific PPPs for the SDGs outcomes.

PIERS is not merely a calculus or a "pass or fail"

PIERS can be applied to the whole project lifecycle…

The whole project lifecycle refers to project identification, development and implementation stages. In this regard, PIERS can also serve to make revisions to projects that are not performing well. In such a context, PIERS can also perform a "gatekeeping role" between PPPs for the SDGs and typical or traditional PPPs.

... however, it should not be used as a slide rule to describe projects as either "good" or "bad", "pass or fail" but rather ...

PIERS should be used incrementally as a path finder and a development tool to move projects towards PPPs for the SDGs solutions and outcomes.[8]

… integrated into a robust Programme to promote PPPs for the SDGs, …

The Programme needs "converts" and can give incentives to go further as PPPs for the SDGs are more challenging to do than conventional PPPs, where the emphasis is solely on "value for money". Some PPPs for the SDGs might also be more expensive to implement.

… building a data base of PPPs for the SDGs projects …

The UNECE has a substantial database of case studies that showcase elements of the PPPs for the SDGs outcomes that make people the main beneficiaries and which have sustainable development as the core. Those elements of the PPPs for the SDGs outcomes in existing projects can be promoted to inspire Governments in other countries. At the same time, it is fully appreciated that many of these projects found in the UNECE database aspire to be designated as PPPs for the SDGs. They require still to be assessed in an inclusive manner and in line with the Guiding Principles, notably Principle 10.

… and this will then become a source of encouragement to project sponsors to go even further in their strategies and aspirations for their projects.

Projects can always be improved upon and challenges are constantly changing. Learning is a continuous exercise and PIERS can contribute to this process by representing a benchmark for project stakeholders to aspire to.

Measurable, neutral, adaptable criteria are the key to an effective Evaluation Methodology

The criteria should be both qualitative and quantitative, …

The criteria elaborated for each of the five PPPs for the SDGs outcomes were drafted in a way that leave as little as possible to subjective interpretation. A major challenge to developing any evaluation methodology is whether the evaluation that is done using such a methodology can be genuinely presented as "non-biased".

... a reasonable number…

Realistically, the users of PIERS wishing to shape their projects to make them closer to the PPPs for the SDGs approach, will be less inclined to use PIERS if it is too complicated, with too many criteria.

… and aware of some limitations in PIERS itself.

PIERS does not deal specifically with the institutional framework for project preparation and decision-taking which remains a critical factor in launching projects and ensuring their effectiveness.

[8] See checklist of issues for prefeasibility studies in Annex II.

Governments need support to properly use PIERS and to develop actual projects

This process to mainstream the PPPs for the SDGs approach is only just beginning…

As defined in the Guiding Principles, PPPs for the SDGs is, after all, a new inclusive approach that is getting started, often in the most challenging of environments.

… and there are no quick fixes but requires all stakeholders – governments, private sector and civil society – to work together in new forms of partnerships over long periods of time…

Like the SDGs themselves, PPPs for the SDGs is an ambitious approach coming out of the main drivers for the SDGs, viz, transformative change to achieve economic, social and environmental sustainability, poverty eradication, transparency, budgetary sustainability, participation, inclusiveness and good governance.

… with no single project being ringfenced.

PPPs for the SDGs are part and parcel of new integrated infrastructure policies and strategies that put sustainable development at the core and people as the main beneficiaries of infrastructure and public services.

Infrastructure projects in countries, especially the low and middle-income ones …

The battlegrounds for the SDGs are precisely where the achievements for success are the most challenging, especially for vulnerable and fragile countries which often have endured conflicts and where institutions are rather weak and social cohesion is fragile or unstable.

… are desperately needed, and Governments in these countries need support in facilitating such projects.

Support needs to be offered to countries wishing to use PIERS in order to deliver impactful PPP projects. Such support to Governments needs to be project-based, comprehensive and inclusive involving stakeholders through the project lifecycle if PIERS is to deliver high valued quality, projects following the 10 Guiding Principles. Although PIERS can be used by Governments without any further assistance, in order to ensure it widespread use, it is important that PIERS is implemented through support and capacity-building in order to assist Governments and to help them meet their SDG targets.

PIERS should thus not be the “end of the story”. Rather it must be the beginning. Work must follow the publication of this document in order to ensure its effective use and widespread application.

II. Introduction

The following is a description of PIERS for scoring and evaluating PPP projects that aspire to be described as “PPPs for the SDGs” in line with the UNECE Guiding Principles on PPP in support of the SDGs. PIERS[9] consists of three elements:

- Criteria and indicators that demonstrate achievement in each of the five PPPs for the SDGs outcomes;
- A weighting of these outcomes along with other issues pertinent to scoring; and
- A scoring system that can provide various stakeholders[10] with the evaluations needed to revise and adjust their projects to make them more compliant with the PPPs for the SDGs outcomes and the SDGs.

[9] The UNECE PPP standards, methodologies, guiding principles, best practices, declarations and recommendations are endorsed and adopted by acclamation by the UNECE intergovernmental bodies – the Working Party on Public-Private Partnerships and the Committee on Innovation, Competitiveness and Public-Private Partnerships – and do not impose any obligations on member States as their implementation is entirely voluntary.

[10] Mainly governments, but the tool is also suited for the private sector, lenders and civil society.

The criteria identified below are grouped under each of the five outcomes that together summarise PPPs for the SDGs, namely,

(a) Access and equity;

(b) Economic effectiveness and fiscal sustainability;

(c) Environmental sustainability and resilience;

(d) Replicability; and

(e) Stakeholder engagement.

PIERS is a living document and will be amended in the future on the basis of feedback received from the users. PIERS was originally inspired by other methodologies,[11] namely the EASIER[12] methodology and its accompanying Practical Guide[13] based on the PPPs for the SDGs outcomes developed by IESE Business School, Barcelona, Spain; and Envision,[14] a sustainable infrastructure evaluation tool and rating system developed and administered by the Institute for Sustainable Infrastructure (ISI).[15]

III. Features and characteristics of the Public-Private Partnerships and Infrastructure Evaluation and Rating System (PIERS): an Evaluation Methodology for the Sustainable Development Goals

A. Where does PIERS apply?

PIERS applies to all types, sizes, project stages, and PPP models,[16] anywhere around the world, in any sector.

A PPP can be defined as:

- A physical infrastructure which is the support of a public service designed, financed, built or rehabilitated and operated by a commercial company selected by way of competitive bidding and operating the service in accordance with the provisions of a contract, entered into with the public authority in charge of delivering such a service.
- The contract, based on functional specifications and performance criteria, provides for a compensation of the company by the public authority or by the end users (or a

[11] The UNECE and its members States have not reviewed, discussed, nor endorsed any of the other methodologies. PIERS is the exclusive propriety of UNECE in accordance with "Intellectual Property Rights Policy governing the development and use of UNECE PPP Standards" and its adoption does not imply any advantage or privilege or any acknowledgement by UNECE of the other methodologies and their related institutions and privates parties.

[12] EASIER methodology (P. Berrone, J.E. Ricart, A.I. Duch, V. Bernardo, J. Salvador, J. Piedra Peña and M. Rodríguez Planas, "EASIER: An Evaluation Model for Public-Private Partnerships Contributing to the Sustainable Development Goals", Sustainability 2019, 18 April 2019). More information at https://www.mdpi.com/2071-1050/11/8/2339.

[13] Practical guide to answer EASIER evaluation (2019), IESE Business School, Barcelona, Spain.

[14] Envision is used to evaluate the sustainability and resiliency of all types and sizes of civil infrastructure. Originally developed in joint collaboration between the Institute for Sustainable Infrastructure (ISI) and the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design, it has been used to evaluate billions of dollars of infrastructure development globally: www.sustainableinfrastructure.org.

[15] ISI, Washington, DC, United States, is a non-profit education and research organization founded in 2010 by the American Public Works Association (APWA), the American Society of Civil Engineers (ASCE) and the American Council of Engineering Companies (ACEC): www.sustainableinfrastructure.org

[16] As defined by the Guiding Principles, PPP models "*include two types: "government-pay PPPs" which are primarily funded by taxpayers and "concessions" which are primarily funded by the users of the infrastructure.*"

combination of both). The service is rendered for a time period calculated in such a way that the company may amortize all costs and make a reasonable profit.

- At the expiry of the term, the infrastructure is transferred in good operating conditions to the public authority, generally without compensation unless, such a compensation is provided for the contract.

Examples of PPPs include:

(a) Economic infrastructure such as transportation facilities and utility networks (for example, water, sewage, communications, electricity);

(b) Social infrastructure such as schools, hospitals, libraries, parks and other amenities, public housing; and

(c) Green infrastructure/community-based PPPs.

B. When to use PIERS?

PIERS can be used early on in project identification through to project development and implementation. Throughout this document, the term “project” is used to refer to future projects being prepared or constructed as well as existing projects in operations.

Project identification refers to the concept stage of the project (that is, the original idea for the project) when pre-feasibility studies are conducted. During this stage of the project, the public partner sets forth its ideas, strategy and objectives for the project.

Project development refers to the stage of the project where the detailed shaping of the project occurs through full feasibility, tendering, technical design, legal and financial structuring up until contract signing and financial close.

Project implementation refers to the construction, operations and contract management stages of the project over the project lifespan. At this stage of the project, the project design and commitments are crystallised, and the public partner is in the position of monitoring performance and compliance.

The earlier PIERS is applied in a project lifecycle the greater value it can deliver. For example, the ability to make changes to a project and their associated costs, is typically much lower during the project implementation phase than in the project identification phase where the ability to make changes to the project is far higher.

Therefore, the potential purpose of applying PIERS and the documentation required at every stage of a project is summarised in table 1 below.

Table 1. Applying PIERS

Stage	*Potential purpose of applying PIERS*	*Documentation required*
Project identification	Checklist of issues to consider when preparing heads of terms for the project	Concept note or teaser outlining the proposed project and its objectives
Project development	Detailed design of the project and structuring of the contract	Feasibility study, tender documents, draft contract
Project implementation	Taking stock of the project’s effectiveness with a view to drawing lessons learned and improving decision making for future projects	Monitoring or performance reports under the actual contract

C. Main features of PIERS

There are many features and characteristics of PIERS, including:

Flexible and adaptable:

- PIERS is flexible and sufficiently adaptable to be applied to all types and sizes of PPPs and users of the tool have the flexibility to address the criteria in the best, most efficient, and most appropriate ways for the project, taking local context into consideration;
- PIERS can be applied to PPPs anywhere around the world and can be adapted for use at any stage of a PPP's lifecycle; and
- PIERS is a reference tool allowing users to develop their projects in line with the PPPs for the SDGs approach.

Measurable:

PIERS includes both qualitative and quantitative methods for measuring the PPPs for the SDGs outcomes. The emphasis of PIERS is not just on value-for-money, but also value-for-people.

Comprehensive:

PIERS aims to address the five PPPs for the SDGs outcomes. A number of criteria, along with the indicators, are presented as ways to measure a project's contributions to each of these outcomes which align with the SDGs.

Applicable:

- PIERS is intended to evaluate projects but also addresses issues of relevance for project development. Due to the nature of PPPs and the alignment of PIERS with the SDGs, which have macro implications, PIERS includes a mix of project-specific and more general criteria.
- PIERS is agnostic in terms of which PPPs can use the tool. Any PPP may use the tool, with the notation that improvements can be made in any sector and in any country.

Consistent:

The aim of PIERS is to provide a consistent way of addressing PPPs for the SDGs, provide a "common language" for both governments and the private sector to engage in PPPs for the SDGs, and to enable a consist way in which to evaluate PPPs for their contributions to PPPs for the SDGs outcomes.

D. What is partially covered by PIERS but requires full ex ante assessment

PIERS is intended to assess whether a project would qualify as a PPPs for the SDGs and how it would contribute to the SDGs, however it is not sufficient in itself to determine whether a PPP is the optimal procurement model to undertake an infrastructure project. A number of enabling factors would need to be assessed such as the institutional framework, the investment and business climate, and government capacity.[17]

[17] The tools and resources that could potentially be referred to for such an assessment include but are not limited to: 1) Laws, regulations and contract: UNCITRAL Legislative Guide on Public-Private Partnerships (2019), UNCITRAL Model Legislative Provisions (see online: UNCITRAL Legislative Guide on Public-Private Partnerships, 2019, https://uncitral.un.org/en/lgppp) and the UNECE Standard on PPP/Concession Legal Framework in support of the SDGs (see online: https://unece.org/sites/default/files/2023-02/ECE_CECI_WP_PPP_2022_05-en.pdf) ; PPP guiding principles: UNECE 10 Guiding Principles on PPPs for the SDGs; 2) Institutional arrangements: Multilateral Development Banks' PPP Knowledge Lab (see online: PPP Knowledge Lab, https://pppknowledgelab.org/countries); 3) Business climate: World Bank Doing Business Index (See online: World Bank, https://www.doingbusiness.org/en/doingbusiness); 4) Investment climate: UNCTAD World Investment Report (See online, UNCTAD, https://unctad.org/topic/investment/world-investment-report); and 5) Integrity and corruption: UNECE Standard on a Zero Tolerance Approach to Corruption in PPP Procurement (ECE/CECI/WP/PPP/2017/4), 2018, see online https://unece.org/DAM/ceci/ppp/Standards/ECE_CECI_WP_PPP_2017_04-en.pdf).

III. Criteria and indicators for the Public-Private Partnerships for the Sustainable Development Goals outcomes

PIERS is comprised of 22 criteria and 68 indicators outlined below for each of the five PPPs for the SDGs outcomes. Although PIERS is intended to be applied to projects undertaken under a PPP delivery form, the majority of the criteria and indicators do not measure the incremental effects of PPPs but substantially apply to infrastructure projects contracted out to the private sector and undertaken through traditional or modern public procurement.

1. Access and equity

Definition

Across the 17 SDGs, a key focus is improving access to critical public services for social development and poverty eradication, recognizing that depriving access to one service can have huge negative impacts on people's livelihoods and wellbeing.

Equity could be broadly defined as equal access to the infrastructure and PPP project outputs/services, and that proactive measures are employed, where necessary, to ensure that all citizens interested by the service with due regard to the economically disadvantaged and those who suffer from social exclusion have access to the service in an equitable manner.

Criteria

The following five criteria have been identified to assess project performance against the Access and Equity outcome:

1.1 Provide essential services;

1.2 Advance affordability and universal access;

1.3 Improve equity and social justice;

1.4 Plan for long-term access and equity; and

1.5 Avoid/minimise and mitigate physical and economic displacement.

Indicators

A total of 13 indicators were developed to accompany the five criteria and these are listed below under each criterion:

1.1 Provide essential services:

1.1.1 Is the project identifying and taking into account the real needs of the people by reference to their economic and social situation as established through the stakeholder engagement process?

1.1.2 Is the project contributing in an organised manner to the expansion and improvement (for example including but not limited to circular economy processes) of essential services?

1.1.3 Is there evidence that stakeholder lives will be / have been / are being transformed as a result of the project providing new or improved access to essential services?

1.1.4 Is the project avoiding, eliminating, mitigating, and/or offsetting impacts to existing essential services?

1.2 Advance affordability and universal access:

1.2.1 Affordability: Is the level of service provided by the project clearly identifying and addressing in a conservative manner the affordability capacity of the people that the project is intended to serve over the life cycle of the project, such that, *inter alia*:

1.2.1.1 for a concessions PPP, the service provided by the project is and can be expected to remain reasonably affordable for the users including if necessary, through special rules for those most vulnerable and disadvantaged?[18]

1.2.1.2 for a government-pay PPP, the costs of the service provided by the project can be accommodated within the available public sector budget?[19]

1.2.1.3 in both cases, there are plans to monitor and regulate (giving due consideration to the maintenance of the project's economic and financial balance) the ongoing effectiveness of the affordability measures put in place by the project and to confirm that the costs of the service provided by the project are lower than the cost of the same service provided by the contracting authority under any other procurement form?[20]

1.2.2 Accessibility: Is the level of service provided by the project clearly identifying and addressing the accessibility needs of the people the project is intended to serve over the life cycle of the project and taking into account various economic development scenarios, such that, *inter alia*:

1.2.2.1 the service is provided by the project accessible by all users including those most vulnerable and disadvantaged?

1.2.2.2 there are plans to monitor (through indicators and targets for both nominal and effective access) and regulate the ongoing effectiveness of the accessibility measures put in place by the project?

1.3 Improve equity and social justice:

1.3.1 Is the historic context of equity and social justice being taken into account and remedied through the project?[21]

1.3.2 Is an Environmental and Social Impact Assessment being conducted notably to assess and mitigate the project's range of direct and indirect social impacts[22] it will have on the citizens and more particularly the host and affected people communities?

1.4 Plan for long-term access and equity:

1.4.1 Are potential impacts to project performance and economic and financial equilibrium over the project life cycle in terms of accessibility and equitability being evaluated?

[18] See online: Global Infrastructure Hub, Inclusive Infrastructure and Social Equity Tool, https://inclusiveinfra.gihub.org/action-areas/affordability-and-optimising-finance/

[19] See online: PPP Knowledge Lab, https://pppknowledgelab.org/guide/sections/34-assessing-fiscal-implications-of-a-ppp-project#passage-114

[20] For example, any measures put in place by the PPP to ensure users are able to continue to afford and access the service(s) provided.

[21] Examples of a project correcting a historical injustice or imbalance include (but are not limited to): the provision or improvement of services to historically underserved communities; the removal of existing infrastructure that divided or created barriers within a community; correcting historic inequality where one community or sub-group within a community was disproportionately burdened with negative impacts while not receiving its fair share of the benefits; addressing historic socioeconomic trends in PPP development and implementation related to diversity and inclusion (that is, ensuring women are in positions of authority where they historically would have been excluded).

[22] For example, direct impacts on cultural, historical, recreational, or other resources and services resulting from the project and associated activities (for example, staging, construction, operation); impacts from independent secondary development or actions that may occur as a result of the project (for example, new temporary or permanent housing developments, new formal or informal business districts, or other developments that occur outside of the PPP but are a result of the PPP being developed); indirect impacts on cultural, historic, recreational, or other resources or services important to the local community as identified through, for example, a stakeholder engagement and public participation process.

1.4.2 Is the project being designed, structured, developed, managed, or contracted (based on a contract template included in the tender documents) in such a way to:

1.4.2.1 be able to continue to anticipate and respond to potential future needs to project performance in terms of affordability, accessibility, and equitability over the life cycle of the project?

1.4.2.2 share fairly project's benefits among stakeholders (the parties to the PPP contract as well as the users and affected communities) over the life cycle?

1.4.3 Are monitoring and orderly contract adaptation mechanisms in place to ensure continued service delivery at acceptable performance levels over the life of the project?

1.5 Avoid/minimise and mitigate physical and economic displacement:[23]

1.5.1 Is the land to be permanently acquired or temporarily used for the project being selected only for the unavoidable, exclusive and necessary needs of the project?

1.5.2 Where land acquisition is unavoidable, is the physical and economic displacement process following the UN Basic Principles and Guidelines on Development-based Evictions and Displacement (2007)?[24]

2. Economic effectiveness and fiscal sustainability

Definition

Economic effectiveness and fiscal sustainability refer to the project's contribution to economic growth and quality employment as well as the justification of the choice of a PPP contractual form over other procurement options involving private participation to public service delivery. It also stems from the project's ability to utilize efficiently all economic assets, generate a reasonable level of profitability from affordable tariffs while allowing in particular for government-pay PPPs sustainable budget and debt management by the public party, including off-balance sheet debt and contingent liabilities.

Because corruption is one of the biggest challenges to the achievement of PPPs for the SDGs, the UNECE has developed a Standard on a Zero Tolerance Approach to Corruption in PPP Procurement (ECE/CECI/WP/PPP/2017/4) which contains anti-corruption principles and recommendations specifically targeted toward PPPs. By implementing this standard, governments can put procedures and processes in place to lower the risk of corruption taking place, therefore building trust with all stakeholders involved in a project.

Criteria

The following four criteria have been identified to assess project performance against the Economic Effectiveness and Fiscal Sustainability outcome:

2.1. Avoid corruption and encourage transparent procurement;

2.2. Maximise economic viability and fiscal sustainability;

2.3. Maximise long-term financial viability; and

2.4. Enhance employment and economic opportunities.

[23] UNDP Social and Environmental Standards (SES), Standard 5: Displacement and Resettlement. For more information, visit https://info.undp.org/sites/bpps/SES_Toolkit/SitePages/Standard%205.aspx

[24] See online: United Nations Office of the High Commissioner for Human Rights, https://www.ohchr.org/Documents/Issues/Housing/Guidelines_en.pdf

Indicators

A total of 17 indicators were developed to accompany the four criteria and these are listed below under each criterion:

2.1 Avoid corruption and encourage transparent procurement:

2.1.1 Is the project generally following or adhering to the UNECE Standard on a Zero Tolerance Approach to Corruption in PPP Procurement (ZTC) or the principles contained therein?

2.1.2 Are approvals of the project, PPP contract and private sponsor/shareholder being processed according to law[25] and in full transparency?

2.1.3 Is the project being awarded transparently, namely:

2.1.3.1 through an open and transparent competitive tender?

2.1.3.2 in the case of an unsolicited proposal or alternative approach devoid of competition, generally following the safeguards stipulated in the UNECE Standard on a Zero Tolerance Approach to Corruption in PPP Procurement (ZTC) or the principles contained therein?

2.1.4 Is evidence of corruption or undue influence absent throughout the stages of PPP procurement (identification, development, and implementation)?

2.1.5 Is the PPP the result of a structured negotiation process[26] resulting in a balanced contract (based on a contract template included in the tender documents)?[27]

2.2 Maximise economic viability and fiscal sustainability:

2.2.1 Is the project delivering "value-for-people" meaning:

2.2.1.1 the project is offering net tangible and intangible benefits to society by providing services to a consistently and verifiably higher standard?

2.2.1.2 positive externalities are being generated over the life of the project in line with national strategy and programmes?

2.2.2 Is the project generating positive "value-for-money"[28] meaning:

2.2.2.1 the costs[29] net of benefits[30] of the selected PPP contractual model are lower vs. a modern public procurement model?[31]

2.2.2.2 the project's cost/benefit analysis is favourable for the public party, comparing the amount of taxpayer's money required for the project and the economic benefits (including any upfront or annual fees from the project) that will accrue from the project's implementation?[32]

[25] For example, government approval under a proven PPP legal framework, or special law enacted by parliament for a one-off project. This indicator is not an assessment of legality but rather an indication that the PPP legal framework was duly followed in the PPP approval process.

[26] For example, involving experienced advisors.

[27] For example, reference to UNECE List of Recommended Clauses in Concession Contracts, https://unece.org/fileadmin/DAM/ceci/documents/2018/PPP/WP/ECE_CECI_WP_PPP_2018_11-en.pdf.

[28] Value for money means achieving the optimal combination of benefits and costs in delivering services (applying an appropriate discount rate for the country, sector and nature of the project, for example, green infrastructure). See online: PPP Knowledge Lab, https://pppknowledgelab.org/guide/sections/54-assessing-value-for-money-of-the-ppp.

[29] For example, higher cost of funds and other negative externalities.

[30] For example, fixed price certainty, shorter implementation period, higher design and technical standards applied, consistent maintenance, whole life costing of the project.

[31] Such as Design and Build (DB) or Design, Build, Operate (DBO)

[32] See online: PPP Knowledge Lab, https://pppknowledgelab.org/guide/sections/55-assessing-fiscal-implications.

2.2.3 Are any budgetary impacts or revenues being transparently reflected in public accounts meaning:

2.2.3.1 the fiscal sustainability of the PPP contract and creditworthiness of the public authority are being positively assessed?[33]

2.2.3.2 the burden of any direct payment,[34] the fiscal return to the public authority[35] and the potential burden of the debt from contingent liabilities are being openly disclosed to interested parties?[36]

2.2.4 Is the project maximising development impact and facilitating women's empowerment?

2.3 Maximise long-term financial viability:

2.3.1 Is the project's private sponsor/shareholder of adequate technical, financial and reputational standing to successfully finance, implement, operate and maintain the project over its life, including having access to necessary resources to fulfil its contractual obligations under various economic scenarios and to adapt the services provided to the potentially evolving needs?

2.3.2 Are the revenues under the PPP contract[37] enabling the private partner to cover during the project life cycle operating and maintenance costs and to repay the capital invested including an agreed target Internal Rate of Return (IRR) commensurate with project's risk and reward profile?[38]

2.3.3 Are material risks[39] and rewards of the PPP being identified and appropriately mitigated,[40] allocated or shared (as the case may be) in the contract or in the underlying regulations for the PPP delivery form selected and sector?[41]

2.4 Enhance employment and economic opportunities:

[33] The multilateral tool "PPP Fiscal Risk Assessment Model – PFRAM" prepared jointly by the IMF and World Bank is designed to help countries enhance their infrastructure fiscal transparency and perform the quantitative assessment of the off-balance sheet sovereign debt resulting from privately financed infrastructure projects, including contingent liabilities. See online https://www.imf.org/external/np/fad/publicinvestment/pdf/PFRAM2.pdf

[34] Availability payment or otherwise.

[35] For example, from upfront and annual fees from the project as well as taxes accrued directly or indirectly from the project.

[36] Contingent liabilities are usually involved in the case of sovereign guarantees and PPP contract clauses, such as clauses related to revenue thresholds or termination.

[37] For example, from tariffs, availability payments, or other sources.

[38] Debt and equity, including interest and shareholder return as applicable.

[39] Material risks may include (but are not necessarily limited to):

(a) Construction risks (such as construction cost overruns);
(b) Operations and maintenance risks (such as higher than expected operations and maintenance costs);
(c) Demand risks (such as the risk that the project will not be used by those it is intended to serve to the extent required);
(d) Collection risks (such as the risk that the project's end users or beneficiaries will not pay or will not be able to pay for the service);
(e) Inflation, currency, and exchange risks; and
(f) Security or other in-country risks that could impact the successful implementation of the project.

[40] Execution risks could be mitigated with clear design specifications, and/or implementing a phased approach to development.

[41] Allocation i.e., between the public party, private party (including the engineering, procurement and construction contractor(s), the project sponsors and lenders.

2.4.1 Is the project creating a significant number of new local jobs[42] during project identification, development, and implementation?[43]

2.4.2 Are quality jobs being created by the PPP that are in line with the ILO Decent Work Indicators?

2.4.3 Is the project identifying skill or capability gaps in the local workforce and establishing targeted training and capacity building programmes towards groups[44] that face barriers to employment and upward mobility in the workplace?

2.4.4 Are there plans and programmes, including key performance indicators (KPIs) being put in place to ensure diversity and inclusion in the workforce?

2.4.5 Are there commitments being made for the protection of workers' rights that include:

2.4.5.1 women's rights?

2.4.5.2 non-discrimination?

2.4.5.3 prevention of violence and harassment in the workplace?

2.4.5.4 equal pay for equal work?

2.4.5.5 access to education and other essential services?

3. Environmental sustainability and resilience

Definition

Environmental sustainability refers to the protection and preservation of the planet and is a basic requirement of sustainability. Acting to preserve biodiversity and to combat climate change and its impacts is integral to the successful implementation to the SDGs.

Resilience in relation to environmental matters refers to "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and the restoration of its essential basic structures and functions through risk management" (United Nations International Strategy for Disaster Reduction, 2017).[45]

The UNECE has negotiated five environmental conventions, also known as Multilateral Environmental Agreements (MEAs).[46] Particularly, the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment, set out the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. Additionally, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) aims to ensure the sustainable use of transboundary water resources by facilitating cooperation. It is complemented by the UNECE-WHO/Europe Protocol on Water and Health which provides a framework to translate into practice the human rights to water and sanitation and to implement SDG 6. Additionally, the Convention on Long-range Transboundary Air Pollution aims to improve air quality across sectors and national boundaries by providing access to data and information on the effects of air pollution

[42] Local is relative to the project scale and may be "state/provincial/territorial" or "national" for large projects or may be within the project service area only for smaller projects.
[43] Need to take into account the productivity standards that are usually expected in private sector employment when assessing the number of jobs created by the project.
[44] For example, economically depressed, underemployed, or disadvantaged communities, including women, ethnic and racial minorities, and other vulnerable groups that face barriers to employment and upward mobility.
[45] The Organization is now called the United Nations Disaster Risk Reduction (UNDRR).
[46] For more information, visit https://www.unece.org/env/treaties/welcome.html

and the Convention on the Transboundary Effects of Industrial Accidents helps Parties to prevent industrial accidents that can have transboundary effects and to prepare for, and respond to, accidents if they occur.

An important set of international references is published under the UNDP Social and Environmental Standards (SES),[47] aiming at determining, assessing and managing environmental and social risks in projects.

Criteria

The following five criteria have been identified to assess project performance against the Environmental Sustainability and Resilience outcome and should be addressed in the Environmental and Social Impact Assessment (ESIA) annexed to the feasibility study:

3.1 Reduce greenhouse gas emissions and improve energy efficiency;

3.2 Reduce waste and restore degraded land;

3.3 Water consumption and wastewater discharge;

3.4 Protect biodiversity; and

3.5 Assess risk and prepare for disaster management;

Indicators

A total of 15 indicators were developed to accompany the five criteria and these are listed below under each criterion:

3.1 Reduce greenhouse gas emissions and improve energy efficiency:

3.1.1 Greenhouse gas emissions:

3.1.1.1 Are the annual greenhouse gas emissions over the life of the project being calculated?

3.1.1.2 Is the project developing a plan/identifying strategies to reduce or offset greenhouse gas emissions over the life of the project?

3.1.1.3 Is the project implementing measures to reduce (against the baseline) or offset greenhouse gas emissions[48] compared with global norms or widely recognised industry standards (including potentially seeking some form of certification)?

3.1.2 Energy efficiency:

3.1.2.1 Is the annual energy consumption of the project, per unit of output/service, being regularly calculated?

3.1.2.2 Is the project developing a plan/identifying strategies to improve the energy efficiency/reduce energy consumption of the project?

3.1.2.3 Is the project implementing measures to reduce energy consumption per unit of output/service compared to national norms?

3.1.2.4 Is the project improving the Energy Performance Index (EPI), the Energy Use Index (EUI) or meeting the EU Energy performance of buildings directive (EPBD) or other equivalent regulatory standard of any facilities and/or buildings included in the project, as measured by the total energy consumed in a building/facility over a year divided by the total built-up area compared to national norms?

[47] For more information, visit https://www.undp.org/publications/undp-social-and-environmental-standards-ses

[48] Measures to reduce greenhouse gas emissions may include but are not limited to planting trees to absorb CO2 equivalent emissions and/or implementing technologies or materials capable of capturing CO2 equivalent emissions generated by the project; replacing fossil fuels with renewable energy; using more energy efficient processes, technologies, and equipment, etc.

3.2 Reduce waste and restore degraded land:

3.2.1 Circular economy:[49]

3.2.1.1 Is the project investigating the potential to utilise unwanted waste and/or excess resources from another local project[50] or by finding local destinations for the beneficial use/reuse of its unwanted waste and/or excess resources?[51]

3.2.1.2 Is the material input per unit of service (MIPS) for the project being calculated, and is the project reducing the raw material intensity of materials compared to national norms?

3.2.1.3 Is the project preparing an operational waste management plan, which addresses the reduction of waste[52] (including hazardous waste) over the life of the project?

3.2.1.4 Is the project reducing waste generation (including hazardous waste) per unit of output or service per year compared to the national industry norm?

3.2.1.5 For any waste generated by the project (after reduction measures have been incorporated), is the project reducing the diversion of waste (including hazardous waste) to a landfill per unit of output or service per year compared to the national industry norm?

3.2.2 Is the project located on previously developed land or barren or degraded land unfit as farmland?

3.2.3 Is the project restoring (compensating)[53] equivalent degraded land in the project footprint at a location outside the project boundary, but within the impact area of the project?

3.3 Water consumption and wastewater discharge:

3.3.1 Is the project meeting the statutory wastewater discharge norms after treatment and including features to minimise the negative impacts of water usage, and/or watershed-scale issues?

3.3.2 Is the project identifying and implementing strategies to reduce the amount of freshwater consumed/used by the project per unit of output/service compared to national norms?

[49] In the context of this indicator, circular economy processes include the beneficial use/reuse of "unwanted waste" or "excess resources". Unwanted waste or excess resources include waste or excess materials, energy/heat, gas emissions, and/or effluent (and could also be expanded to consider excess service capacity, workforce/management capacity, financial capacity, and land area/space capacity). A circular economy can be achieved, at least in part, by finding a beneficial use/reuse for the project's waste or excess resources and/or the project's beneficial use/reuse of external waste or excess resources (that is, from another project operating in the same (local) service area).

[50] For example, within the project's service area.

[51] Projects whereby all or the majority of unwanted waste and/or excess resources are beneficially used/reused (for example, a fully integrated closed-loop organics waste management system that processes unwanted garden/yard and home/industrial kitchen waste from a city into biomethane gas which is then used to fuel the city's fleet of service and waste collection vehicles, and a compost product suitable for agricultural and/or landscaping purposes) would be considered true "circular economy" projects, compared with projects that contribute to a circular economy through the short-term or one-time use of unwanted "waste" materials, (for example, a project that incorporates fly ash from a nearby coal-fired plant into concrete used during its construction).

[52] That is, the reduction of solid waste generation and disposal on land, the reduction of particle and evaporated waste generation and disposal in air, and the reduction of liquid waste generation and disposal in water. In all instances, "waste" refers to both hazardous and non-hazardous waste.

[53] The project restores degraded land within the project area (could be outside the project footprint but within the project impact area) to a condition that supports natural open space, habitat, or natural hydrology and/or the project reclaims brownfields (based on national classifications of brownfields) through passive and/or active remediation.

3.3.3 Is the project having a net-zero impact on the quantity and availability of fresh surface water and groundwater supplies?

3.4 Protect biodiversity:[54]

3.4.1 Is the project conducting an ESIA?[55]

3.4.2 Is the project developing and implementing an environmental management plan (EMP) to avoid, mitigate impacts to, or restore the impact area?[56]

3.4.3 Is the project preserving and/or improving the functionality of habitats (terrestrial and/or aquatic) in partnership with local authorities[57] (for example, local conservation authorities) or internationally recognised conservation initiatives?

3.5 Assess risk and prepare for disaster management:

3.5.1 Is the project developing a well-articulated risk reduction and mitigation strategy for the project involving a response and recovery coordination mechanism being put in place with the host and the affected communities?

3.5.2 Is the project identifying funds from different sources and/or providing a budget for:

3.5.2.1 asset losses?

3.5.2.2 well-being losses?

3.5.3 Is the project allocating funds to support research, innovation, capacity building and/or awareness programmes?

3.5.4 Is there a defined community driven development (CDD) programme being put in place:

3.5.4.1 identifying preventive measures and preparatory actions before, emergency actions during, and recovery and resilience actions after natural and human induced disasters?

3.5.4.2 making a plan to assess poverty related measures to support the development of the CDD programme?

3.5.4.3 establishing a community socio-economic resilience indicator to support the development of the CDD programme?

3.5.4.4 being aligned with the Disaster Mitigation Law with respect to CDD programme targets, opportunities, standards and best practices, with appropriate institutional set-up?

[54] See UNDP Environmental Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management.

[55] An ESIA requires an evaluation of the likely environmental impacts of a project, taking into account interrelated socio-economic, cultural and human-health impacts. An ESIA is relevant for all environmental criteria in PIERS. In the context of this criterion, it must include inter alia an examination of the potential project impacts on biodiversity.

[56] Environmental Management Plans detail mitigation measures, monitoring and reporting requirements, procedures, and other best management practices to ensure the project is developed in an environmentally responsible manner.

[57] Local authorities may include formally established or informally recognised local conservation authorities, or other governmental or non-governmental organizations working to protect, preserve, or improve habitat.

4. Replicability

Definition

The concept of replicability will be primarily derived from the demonstration effect of successful projects or of a substantial part thereof undertaken and implemented in line with international best practice and complying with the SDGs.

Success in achieving the SDGs through implementing the Guiding Principles will be a function of improving the institutional, regulatory and contractual framework as well as scaling up programmes and projects. This will require a huge number of PPPs for the SDGs. Such scalability can be achieved if the project is replicable. Replicability is the way in which a project, or part of it, can be used as a precedent for the development of other projects. This can be done by including in an enabling framework practical solutions to resolve common issues to several projects and by standardising project preparation (such as standard tender documents and template contracts) as well as the related training and capacity-building of local staff and public administrations.

Training provided or arranged by the private partner contributes to the better development of the project itself as enhanced local skills lead to a higher quality of project in so far as the staff is better qualified. Training provided or arranged by the private firm also enhances global partnerships (SDG target 16.16 “enhance the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge expertise and technology and financial resources, to support the achievements of the SDGs in all countries, particularly developing countries”) and promotes regional cooperation (SDG target 17.6 “enhance North South, South-South and triangular regional and international cooperation on and access to science and technology and innovation to enhance knowledge sharing”).

In addition, the training might be dedicated towards local personnel, which represents an increase in their capabilities to do similar projects themselves leading to scalability from the project itself. This is furthermore related to SDG target 4.7 “by 2030, ensure that all learners acquire the knowledge needed to promote sustainable development, including among others through education for sustainable development”.

Criteria

The following four criteria have been identified to assess project performance against the Replicability outcome:

4.1 Encourage replicability and scalability;

4.2 Standardise PPP preparation and tender;

4.3 Enhance government, industry and community capacity; and

4.4 Support innovation and technology transfer.

Indicators

A total of 11 indicators were developed to accompany the four criteria and these are listed below under each criterion:

4.1 Encourage replicability and scalability:

- 4.1.1 Is the PPP designed by reference to lessons learnt on common issues and solutions for PPP projects in general?
- 4.1.2 Is the project replicable and/or scalable, allowing for potential economies of scale and affording wider benefits across the economy such as, but not limited to, the development of the circular economy?
- 4.1.3 Is the project increasing revenue and/or reducing costs over its life cycle through optimised design, resource efficiency, appropriate commercialisation and/or an innovative business model?

4.2 Standardise PPP preparation and tender:

4.2.1 Are template contracts being developed within the country providing for *inter alia*, financial and economic equilibrium during the project life cycle, special rights of the public contractor to adapt the service provision when public interest justifies together with special compensation rights for the private partner?[58]

4.3 Enhance government, industry and community capacity:

4.3.1 Are opportunities for the transfer of knowledge/know-how, technologies and skills from the private party to the public party and/or local community stakeholders[59] being assessed and/or successfully implemented?

4.3.2 Is the PPP increasing government capacity[60] and/or project/industry capacity?[61]

4.3.3 Is the PPP increasing local community capacity?[62]

4.4 Support innovation and technology transfer:

4.4.1 Is the project implementing one or more innovative methods, technologies, or processes that eliminate or substantially reduce significant problems, barriers or limitations, and/or create scalable and transferrable solutions?

4.4.2 Is the PPP including a transfer of technology (e.g. to enable a circular economy) or know-how that contributes to inclusive growth, service quality, sustainability and replicability?

4.4.3 Is the project pursuing or intending to pursue recognition[63] so that the project be recognised[64] for its contributions to sustainability and resiliency?

4.4.4 Are other opportunities arising from the PPP[65] to enhance the capacity, efficiency and effectiveness of public and private sector and/or the local community being initiated or implemented?

5. Stakeholder engagement

Definition

Effective and inclusive stakeholder engagement and public participation in decision-making processes and throughout the life of the PPP is an important ingredient for successful project delivery, and yet is often regarded as a fringe activity or one that can be outsourced to business-as-usual functions. “Public participation” is an inclusive concept that covers all

[58] See *List of recommended clauses in concession contracts in Public-Private Partnerships in support of the United Nations Sustainable Development Goals*, UNECE, 2018 (ECE/CECI/WP/PPP/2018/11)

[59] For example, local private sector businesses and industry groups, women, marginalized and vulnerable groups, local non-profit and/or non-governmental organisations, formal and informal community associations, etc.

[60] For example, enhancing institutional efficiency and government effectiveness and/or regulatory quality.

[61] For example, enhancing project or efficiency, regulatory quality, transparency, and the removal of regulatory, policy, or other barriers that have the potential to inhibit the project and/or industry to thrive.

[62] For example, local community capacity in terms of improved transparency, public participation, equality, regulatory quality, human rights, etc.

[63] That is, through a credible, globally and/or industry recognised organisation that provides a project verification and/or certification programme, rating systems, and/or third-party evaluation methodologies that have been used to validate or verify the sustainability and resiliency of infrastructure and/or buildings (material specific or process-based certifications do not qualify).

[64] That is, a formal “award”, “certification”, “verification” of equivalent designation.

[65] “Other opportunities” include those that may have been previously unforeseen or unanticipated during project identification but become apparent later on during project development and/or implementation.

stakeholders, including natural or legal persons who are interested or potentially interested in the project and its outcomes, non-governmental organisations (NGOs), local communities, women, vulnerable people, and others.

Project managers depend on people to respond to the outputs and benefits that they deliver. People will respond better if they are engaged. Thus, best practice in stakeholder engagement and public participation is typically about how the government and private sector reach out to all stakeholders (including the public) to make them feel part of the project.

Stakeholder engagement and public participation in PPPs for the SDGs is widely considered to be more than this. It means creating an enabling framework of regulations, procedures, and contractual provisions, as well as incentivising contracting authorities and private partners to recognise the value of effective and inclusive stakeholder engagement and public participation. One significant form of stakeholder engagement and public participation that is well in tune with the ethos of “PPPs for the SDGs” is to engage directly with the citizens and communities affected by the projects and sometimes to mobilise them through a collective body. The latter can be a conduit for affected people and future beneficiaries’ views on the project and these views can then be addressed together by the contracting authority and the private partner in open and transparent dialogues.

The UNECE has negotiated the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention[66]) and its Protocol on Pollutant Release and Transfer Registers (Kyiv Protocol[67]), which empower people with the rights to access information, participate in decision-making in environmental matters and to seek justice.

Criteria

The following four criteria have been identified to assess project performance against the Stakeholder Engagement outcome:

5.1 Plan for stakeholder engagement and public participation;

5.2 Maximise stakeholder engagement and public participation;

5.3 Provide transparent and quality project information; and

5.4 Manage public grievances and end user feedback.

Indicators

A total of 12 indicators were developed to accompany the four criteria and these are listed below under each criterion:

5.1 Plan for stakeholder engagement and public participation:

 5.1.1 Is a stakeholder mapping exercise being undertaken to determine all stakeholders[68] directly and indirectly affected by and/or interested in the project?

[66] UNECE’s *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, June 1998, available online: https://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf

[67] UNECE’s *Kyiv Protocol on Pollutant Release and Transfer Registers*, October 2009, available online: https://www.unece.org/env/pp/prtr.html

[68] In the context of this indicator, stakeholder identification must be as inclusive as possible. Stakeholders should include end users/direct customers of the PPP; lenders, equity investors, other shareholders; technical, legal, financial, and other advisors; local business and community stakeholders; other private parties and government agencies involved in or affected by the project (for example, operations and maintenance contractors, construction contractors); non-governmental organisations; formal and informal community-based associations (for example, neighbourhood associations, local conservation authorities, others); media and the general public; indigenous peoples; people from marginalized and vulnerable groups, including women.

5.1.2 Is a stakeholder engagement plan (including public participation) being developed, that takes into account the specific needs of each stakeholder,[69] and considers the broad range of project issues that need to be addressed?[70]

5.1.3 Are stakeholder engagement and public participation metrics[71] being established to measure the effectiveness and inclusiveness of the stakeholder engagement and public participation process and metrics, and to measure the specific outcomes achieved as a result of the process?

5.1.4 Is an independent oversight committee responsible for overseeing and monitoring the effectiveness of the stakeholder engagement and public participation process, and the publication and dissemination of project information being established?

5.2 Maximise stakeholder engagement and public participation:

5.2.1 Are the stakeholder engagement and public participation plan(s)[72] throughout the project's lifecycle, in an effective, timely and inclusive fashion being in place and implemented?

5.2.2 Are members of the public, including environmental defenders, able to express their views and participate freely without fear of being penalized, persecuted or harassed for their involvement?

5.2.3 Is stakeholder feedback being:

5.2.3.1 incorporated[73] into project plans, designs, processes and/or influenced decision-making?

5.2.3.2 treated fairly and equitably, and according to the principles of social and environmental justice?

5.2.3.3 sought from stakeholders as to their satisfaction with the engagement and public participation process(es) and the resulting decisions made based on their feedback?

5.3 Provide transparent and quality project information:

5.3.1 Is quality and pertinent information about the project relative to the PPPs for the SDGs outcomes being made readily available to all stakeholders, including members of the public, and being provided in a transparent, timely, understandable and accessible fashion, and incorporated in the PPP contract?

5.3.2 Are regular reports summarising the substantial outcome of general stakeholder engagement meetings being published and are they accessible to all stakeholders, including members of the public?

[69] This indicator builds on 5.1.1. All stakeholders (including the public) identified in 5.1.1 must be accounted for within the stakeholder engagement and public participation plan.

[70] Project issues to be accounted for include the merits and demerits to undertake a project under a PPP model and the social, cultural, economic, environmental as well as all other issues related to the PPPs for the SDGs outcomes.

[71] For example, number of women/women's groups and people from marginalised communities to be included in project decision-making processes; number of meetings and attendees each month; number of survey responses obtained; response times for follow up tasks and assignments; satisfaction rating from stakeholders (including the public) involved in the project; social, cultural, economic, environmental outcomes achieved as a direct of stakeholder and public feedback.

[72] The development of a stakeholder engagement (including public participation) plan was addressed in criterion 5.1 Plan for Stakeholder Engagement and Public Participation. This indicator builds on criterion 5.1 as it is focused on the implementation of the plan.

[73] The focus of this indicator is to ascertain whether or not the stakeholder engagement process(es) actually resulted in any changes to the project and/or influenced decision-making. In some cases, demonstrating that stakeholder feedback changed one or more aspects of the project may not be possible as there are some situations where feedback from stakeholders cannot be incorporated for technical or other valid reasons, or stakeholder feedback suggests alignment with project plans, designs, processes.

5.4 Manage public grievances and end user feedback:

5.4.1 Are a process and mechanisms to manage public grievances and end-user/customer feedback being set up?

5.4.2 Are public grievances and end-user/customer feedback being successfully addressed and/or resolved?

5.4.3 Are public grievances and end-user/customer feedback, including outcomes being tracked and made available subject to personal data protection regulations?

V. Weighting and scoring

Weighting of the PPPs for the SDGs outcomes

The criteria and indicators were elaborated so that the five PPPs for the SDGs outcomes can be scored to assess the extent to which projects meet the PPPs for the SDGs designation.

The weighting in PIERS intends to reflect the correlation between each PPPs for the SDGs outcome and the three pillars of sustainable development set out in the 2030 Agenda for Sustainable Development – economic, social and environmental – as follows:

- The access and equity, economic effectiveness and fiscal sustainability, and environmental sustainability and resilience outcomes are given the same weight (25% each), as each contributes to one pillar of sustainable development;[74] and
- The replicability and stakeholder engagement outcomes contribute equally to the three pillars of sustainable development (25% jointly).

The formula for the final score is made up of the weighted average across the five PPPs for the SDGs outcomes expressed as a percentage.

Scoring of the criteria and indicators

The scoring of the criteria and indicators incorporates the following elements:

- 100 points are allocated to each PPPs for the SDGs outcome;
- A range of answers[75] for each indicator is used instead of “yes/no”;
- A “not applicable” option is available for a number of indicators, in which case, by selecting this option, the indicator is neutralised in the scoring; and
- A number of mandatory indicators are spread across the five PPPs for the SDGs outcomes where the “not applicable” option is not available.

Other issues that should be scored

There are three factors that affect projects that should also be part of the project evaluation and scoring structure, namely:

(a) *Statement of intent*: This would involve the parties (individually or jointly) structuring the project stating explicitly their intention to generate positive social and environmental impacts from the project. This could also be achieved by reference in the statement to the SDGs and/or the PPPs for the SDGs approach;

(b) *Verifiable and measurable data*: Project data that could be verified by an independent source would get additional points in the Self-Assessment Tool. This means

[74] The access and equity outcome contributes to the social pillar, the economic effectiveness and fiscal sustainability outcome contributes to the economic pillar and the environmental sustainability and resilience outcome contributes to the environmental pillar.

[75] E.g. a range of 1 to 5 and/or a range from “unsatisfactory”, “marginal”, “satisfactory”, “good” and “excellent”.

establishing proof that the invested capital itself is positively correlated with the intended outcome; and

(c) *Location of the project*: PPPs for the SDGs will be implemented across a wide range of countries and regions. This will include particularly challenging countries and regions where poverty is pervasive, where infrastructure is lacking and where legal and regulatory frameworks are still at an emerging stage. When applying PIERS, consideration should be given to such different circumstances, among others, by reflecting this in the way that scoring is applied in.

Other points about presenting the project

PIERS is part of a programme to sensitize the international community on the value of taking a new approach to PPPs that is more compliant with the SDGs. Many of the criteria can be statistically shown and can use certain scoring mechanisms to demonstrate compliance. But often people are moved less by statistics than by actual personal "stories" about a project changing ordinary people's lives.

To this end, it is proposed that in PIERS a space would be found for a reply from the project's sponsors that demonstrates how the project can change people's lives for the better: the more personal and direct, the better will be the message. Such a short paragraph about the project can also be used to illustrate the PPPs for the SDGs approach in a database and website.

VI. Implementation

The criteria and the indicators provide a foundation to implement PIERS as a Self-Assessment Tool.

Self-Assessment Tool

The Self-Assessment Tool:

- The Tool provides applicants with a score (expressed as a percentage) and qualitative comments on their infrastructure projects by completing an online questionnaire based on the criteria and indicators. This Tool was initially developed as an Excel platform for testing purposes and will be eventually hosted in the SOURCE platform operated by the Sustainable Infrastructure Foundation (SIF) in line with the relevant UN rules and regulations;[76] and
- Is provided free of charge as an international public good.

[76] At the request of the member States (paragraph 24, ECE/CECI/WP/PPP/2019/2), the UNECE secretariat is collaborating with the Sustainable Infrastructure Foundation (SIF) and its SOURCE software in the implementation of PIERS (see also Decision 2021 – 5.5 in document ECE/CECI/2021/2). SIF is not-for-profit entity funded by the Multilateral Development Banks and provides practical guidance to countries in project development.

Annex I

[English only]

A. Members[1] of the Project Team involved in the completion of Phase I (2020)

The Project Team involved in the completion of Phase I in 2020 was divided into five sub-groups headed by a leadership team.

Leadership team (in alphabetical order):

- Ms. Tetiana BESSARAB (Ukraine)
- Ms. Doris CHEVALIER (France)
- Mr. Anand CHIPLUNKAR (India)
- Ms. Amanda LOEFFEN (United Kingdom)
- Mr. Jean-Patrick MARQUET (France)
- Mr. Pedro NEVES (Portugal)
- Ms. Melissa PENEYCAD (Canada)
- Mr. Joan Enric RICART (Spain)
- Mr. Pierre SARRAT (Sustainable Infrastructure Foundation (SIF))
- Mr. James STEWART (United Kingdom)

Access and Equity

Sub-group leader: Ms. Doris CHEVALIER (France)

Name	Country
Mr. Manuel CARY	Portugal
Mr. Christopher CLEMENT-DAVIES	United Kingdom
Mr. Luiz Eduardo JUNQUEIRA	Brazil
Mr. David MATÉ SANZ	Spain
Mr. Arvind MAYARAM	India
Ms. Ntoetse MOFOKA	Lesotho
Mr. Thibaut MOURGUES	France
Ms. Sophie PAQUOT	United Kingdom
Mr. Fernando PEÑALBA MARTÍNEZ	Spain
Ms. Oshani PERERA	Switzerland
Mr. João Simão PIRES	Portugal
Ms. Narantsetseg PUREV	Mongolia
Mr. Yehuda RAVEH	Israel
Mr Jordi SALVADOR	Spain
Mr. Art SMITH	United States of America
Mr. Andrea STUCCHI	Italy
Mr. Radha Krishna TRIPATHY	India
Mr. Laurin Baptiste WUENNENBERG	Switzerland
Mr. Syed ZAIDI	Canada
Ms. Irina ZAPATRINA	Ukraine

[1] Members of the Project Team are acknowledged by their geographical designation rather than their official representation.

Environmental Sustainability and Resilience

Sub-group leader: Mr. Anand CHIPLUNKAR (India)

Name	Country
Ms. Hajar BENNAR	Morocco
Mr. Pascual BERRONE	Spain
Mr. Pierre-Alix BINET	France
Mr. Martin BRUZA	Czech Republic
Mr. Laurent CRÉMOUX	France
Ms. Sanaz JAVADI FARAHZADI	Iran, Islamic Republic of
Ms. Lira KASYMBEKOVA	Kyrgyzstan
Mr. George KATAPODIS	Greece
Mr. Arnaud KPONDJO	Benin
Ms. Aikaterini KYRIAZI	Greece
Mr. Alan LAU	Singapore
Mr. Alfredo LUCENTE	Italy
Mr. Djamel MEDJAHED	Switzerland
Mr. Bulat YESSEKIN	Kazakhstan

Economic Effectiveness and Fiscal Sustainability

Sub-group leader: Mr. Jean-Patrick MARQUET (France)

Name	Country
Ms. Eunice AJAMBO	Ethiopia
Mr. Athanasios BOURTSALAS	Greece
Mr. Ray BROWN	United Kingdom
Mr. Alena DADZERKINA	Belarus
Mr. Fuad HUSEYNOV	Uzbekistan
Mr. Mukhitdin ISHANKHODJAEV	Uzbekistan
Mr. Christian KINGOMBE	Denmark
Ms. Anna KOWALEWSKA	Poland
Mr. Michel LEONARD	Switzerland
Mr. Francesco MICCI	Italy
Mr. Gavin MUNRO	South Africa
Ms. Yu NAMBA	Japan
Mr. Rafael PÉREZ FEITO	Spain
Mr. Vincent PIRON	France
Ms. Fatoumata SANYANG	Gambia
Mr. Sharafjon SHERALIEV	Tajikistan
Ms. Sanja SOVRAN	United States of America
Mr. Stefan STARTZEL	United Kingdom
Mr. Dietrich STILLER	Germany
Mr. Mehmet UZUNKAYA	Turkey
Mr. Steffen WARMBOLD	Germany
Mr. Erik WEHL	Denmark
Mr. Lars D. WELLEJUS	Germany
Ms. Yanzhen WENG	China
Ms. Sedef YAVUZ NOYAN	Turkey
Mr. Ahmad Matin ZAHID	Afghanistan

Replicability

Sub-group leader: Ms. Tetiana BESSARAB (Ukraine)

Name	Country
Ms. Gavkhar ASHIROVA	Kyrgyzstan
Mr. Jan G. JANSSENS	Switzerland
Ms. Svetlana MASLOVA	Russian Federation
Mr. Dragutin NENEZIC	Serbia
Mr. Olaniyi OLANIYAN	Nigeria
Ms. Natalia OVSYANKO	Belarus
Mr. Manuel PROTÁSIO	Portugal
Mr. Peter ROWAN	United Kingdom
Ms. Malike SAGYNDYKOVA	Kazakhstan
Mr. Pierre SARRAT	Switzerland
Mr. Ivan VUYTSIK	Russian Federation
Mr. Agha WAQAR JAVED	Pakistan

Stakeholder Engagement

Sub-group leader: Ms. Amanda LOEFFEN (United Kingdom)

Name	Country
Mr. Fred AMONYA	United Kingdom
Mr. Pandala ANILKUMAR	India
Ms. Eleni BAKOULA	Greece
Ms. Nadia BALGOBIN	Switzerland
Mr. Sergio FERNÁNDEZ DE CÓRDOVA	Spain
Mr. Muhammad Sarfraz KHAN	Pakistan
Mr. Azlan MORAD	Germany
Mr. Cristobal POLLMAN	Chile
Mr. Míquel RODRÍGUEZ	Spain
Mr. Raymond SANER	Switzerland
Mr. Prashant SHARMA	India
Ms. Irina TSAY	Republic of Korea
Mr. Steven VAN GARSSE	Belgium
Ms. Lichia YIU	Switzerland

B. Experts involved in the completion of Phase II (2021)

The following experts worked very closely with the secretariat to complete Phase II of PIERS in 2021.

Name	Country/Organisation
Ms. Eunice AJAMBO	Office of the Resident Coordinator, United Nations in Namibia
Mr. Alexander BAZHENOV	Russian Federation
Ms. Doris CHEVALIER	France
Ms. Alena DADZERKINA	Belarus
Mr. Louis DOWNING	Global Infrastructure Basel
Mr. Eleazar E. RICOTE	Philippines
Ms. Rose-Lourdes ELYSEE	Haiti

Name	Country/Organisation
Mr. Marc FRILET	International Specialist Centre of Excellence on PPP Policy, Laws and Institutions (France)
Mr. Yohannes HAILU	United Nations Economic Commission for Africa (ECA)
Mr. David MACDONALD	United Kingdom
Mr. Jean-Patrick MARQUET	World Economic Forum
Ms. Yu NAMBA	Japan
Mr. Pedro NEVES	Portugal
Ms. Irina NOVIKOVA	Ukraine
Ms. Heather O’SULLIVAN	United Kingdom
Mr. Vincent PIRON	France
Ms. Melissa PENEYCAD	Institute for Sustainable Infrastructure
Mr. Raymond SANER	Centre for Socio-Eco-Nomic Development (CSEND)
Mr. Oliver SCHWANK	United Nations Department of Economic and Social Affairs (DESA)
Mr. Krishnan SHARMA	United Nations Department of Economic and Social Affairs
Ms. Sedef YAVUZ NOYAN	Turkey

Annex II

[English only]

Prefeasibility - Mainly Contracting Authority:

1. General
    - Review of projects inception options and initial prioritization
    - Project development plan
    - Identification of the main issues
    - Reference to standards and gates
    - Identification of showstoppers
2. Examples of key considerations
3. Investment and business risks
4. Public budget impact during lifecycle
5. Capital expenditure (CAPEX) (Accuracy Level ± 20%)
6. Operating expenses (OPEX) (Accuracy Level ± 20%)
7. Revenue stream (Accuracy Level ± 20%)
8. Environmental impact
9. Communities impact
10. Land use
11. Socio economic externalities
12. Funding sources
13. Deliverable: Prefeasibility report
    - Summarizing the analysis of needs and options
    - Developing an initial risk and rewards matrix
    - Proposing to go ahead or not under PPPs for the SDGs delivery form and choice of procurement route