

# Zero-Draft

## Guide on the state of PPP and infrastructure finance midway to 2030

Disclaimer:

This preliminary draft is provided for discussion purposes only to participants of the 8th edition of the [UNECE International PPP Forum](#). It is made available as received by the drafting team, and represents ongoing work that will be enhanced through dialogue and input from attendees. Following this collaborative feedback, the guide will undergo a rigorous peer-review process and is expected to be submitted for consideration by UNECE member States at the Working Party on PPPs in November 2024.

## 1. The financing toolbox : an inventory for PPPs and infrastructure projects

There is a considerable body of knowledge and reference documents on infrastructure financing. We could mention among others the work of the G20 Infrastructure Working Group and the Global Infrastructure Hub<sup>i</sup>, the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF)<sup>ii</sup>, the Organisation for Economic Co-operation and Development (OECD)<sup>iii</sup>. We would also refer to the UNECE Guiding Principles for People-first PPPs in support of the Sustainable Development Goals (SDGs)<sup>iv</sup> reissued in 2022, which provides recommendations and reference material for sustainable PPP development, including important considerations related to financing notably under :

- Principle 6 : De-risk projects by providing more predictability in the enabling environment,
- Principle 9 : Ensure that blended financing catalyses private partners to invest in PPPs for the SDGs, and
- Principle 10 : Avoid debt traps by ensuring the fiscal sustainability of PPPs for the SDGs and the transparency of fiscal policies.
- These Principles are being put in practice by the UNECE PPP and Infrastructure Evaluation and Rating System (PIERS), an evaluation methodology to score projects against the SDGs<sup>v</sup>.

The ambition of the present guide is to offer public officials considering PPPs for the SDGs a self-explanatory panorama of the drivers, players, opportunities and constraints of infrastructure financing, allowing to build a basic understanding if not an expert knowledge of the subject. This initial section of the guide intends to “set the scene” of infrastructure finance by mapping out the various types of projects requiring financing, the key players to involve, the tools available to governments and the private sector.

### 1.1. Infrastructure project scope

There is no universally accepted definition of what constitutes a PPP and discrepancies in that regard have given rise to concerns regarding the merits of those partnerships. Different organizations also emphasize different aspects of PPPs (African Development Bank, 2017; Economic Commission for Europe (ECE), 2017; United Nations Department of Economic and Social Affairs, 2016; OECD, 2008), which are implemented in a wide range of sectors with a view to procuring a range of assets and services. A commonality is that, through such partnerships, governments can widen the scope of their activities to include not only the direct provision of services in areas such as energy, transport, education, health and clean water and sanitation, but also the purchasing of those services and the regulation and facilitation of service provision. As infrastructure financing mechanisms, PPP projects can facilitate the provision and management of public assets and/or services, including long-life assets.

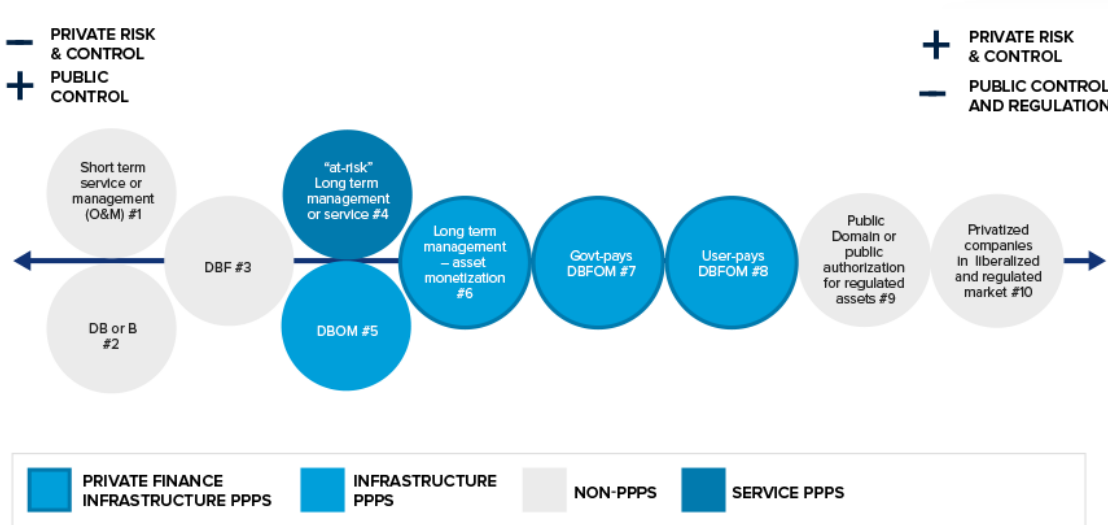
PPPs can be broadly grouped into two categories: (a) **government-funded partnerships**, in which the government pays for the services by way of predetermined payments over the term of the contract for making the asset available (availability payments) or payments per volume of services provided; and (b) **user-funded partnerships**, in which users pay fees for the services provided. The latter are often called concessions. The government may subsidize the investment or guarantee the debt or revenue of companies

involved in the PPP (Irwin, Mazraani and Saxena, 2018). Various combinations of these two funding arrangements are possible. This study conducted an assessment and analysis of the two types of PPP and their drawbacks.

Another classification, also adopted by the European Union and its member States, distinguishes between conventional **contractual PPPs** (PPPs of a purely contractual nature, e.g. concessions, availability contracts, leasing, etc.) and **institutionalized PPPs** (PPPs of an institutional nature, i.e. mixed companies held jointly by the public partner and the private partner, where usually the public partner controls the company either as shareholder or through special rights and the private partner operates the service).

PPPs are widely used to deliver economic and social infrastructure projects. There has been widespread debate about the factors that contribute to their success and failure. Critical to their successful implementation is effective performance measurement of the projects. The rationale for PPPs is based on the claim that PPPs have the potential to close the infrastructure gap by leveraging scarce public funding and introducing private sector technology and innovation to provide better quality public services through improved operational efficiency (Figure 1).

Figure XX: Examples of private participation in public infrastructure



## EXAMPLES

- |   |   |  |   |
|---|---|--|---|
| <p><b>#1</b> O&amp;M 2 years contract for a road.</p> <p><b>#2</b> Contract for design and build, or build only, of Infrastructure (e.g. a road, a rail track, an entire rail system...).</p> <p><b>#3</b> As in #2 but having the contractor pre-financing the works against future payments.</p> <p><b>#4</b> 10 year contract for managing a water supply service, 15 years contract to manage bus transport operations in a city; 15 years contract to manage renewals and ordinary maintenance in a road, under fixed price and quality deductions. Sometimes named lease, affermage, concessions...</p> | <p><b>#5</b> contracts for delivering an asset where contractor will also provide maintenance for a number of years.</p> <p><b>#6</b> 30 year lease or concession to operate an existing toll road against the payment of an upfront fee, or to operate a water system in a city.</p> <p><b>#7</b> 25 DBFOM contract to build, finance and manage a hospital facility/building, or school, a road or a WWTP, etc. Being compensated by performance / availability payments. A Power purchase agreement (PPA) in an Independent Power Project (IPP).</p> | <p><b>#8</b> DBFOM 30 year contract of a road compensated by charges to users collected by the private partner, or a concession of water supply where extensive refurbishment and upgradings of infrastructure and plants.</p> <p><b>#9</b> A concession to use the land in a port location to develop and operate port related facilities for 99 years at the entire risk of the developer; an authorisation to develop a renewable energy IPP to be compensated according to a regulated price subsidised according to renewable energy regulations.</p> | <p><b>#10</b> A telecom operator, or electricity distributor that competes for the clients/users under some limits / regulations.</p> |
|---|---|--|---|

Source: PPIAF

PPPs have been used in a range of sectors for public infrastructure development with private sector participation (Figure 2). **Infrastructure can be economic or social.** Economic infrastructure is infrastructure that makes business activity possible, such as communications and transportation (for passengers and freight), as well as utilities' networks, and systems and plants such as in water, waste and energy supply systems. Typically, the activity that uses the infrastructure is priced or a related service is charged to the user or to an economic operator that uses the infrastructure to provide the service to the ultimate user/consumer. Social infrastructure is infrastructure (mostly facilities in the form of buildings) that accommodates social services. For example, hospitals, schools and universities, prisons, social housing, law courts, and so on. See box 1.14 for distinction between social and economic infrastructure.

In terms of government accounting and classification, infrastructure projects are covered under the OECD's Classification of the Functions of Government (COFOG)<sup>vi</sup> under several classes related to Energy<sup>vii</sup>, Transport<sup>viii</sup>, Water and sanitation<sup>ix</sup>, Digital<sup>x</sup> and Social<sup>xi</sup> and some jurisdictions specify how PPP debt is treated, namely on-balance sheet or off-balance sheet<sup>xii</sup>.

Figure XX: Sectors in which an infrastructure asset may be procured under a PPP Scheme

Sector	Examples
Economic - Transport > rail	<ul style="list-style-type: none"> <li>High-speed rail lines</li> <li>Heavy conventional rail lines</li> <li>Rapid links (e.g. to airports)</li> <li>Operational leasing of rolling stock</li> <li>Metro and other mass transit projects</li> <li>Ticketing and fare collection systems</li> <li>Metro stations</li> </ul>
Economic - Transport > other urban mobility infrastructure	<ul style="list-style-type: none"> <li>Bus rapid transit infrastructure</li> <li>Parking</li> <li>Intermodal interchange or hubs</li> </ul>
Economic - Transport > ports and airports	<ul style="list-style-type: none"> <li>New or upgraded airports</li> <li>New or upgraded ports</li> </ul>

Sector	Examples
Economic - Transport > water and waste	<ul style="list-style-type: none"> <li>• Desalination plants</li> <li>• Wastewater treatment plants (WWTP)</li> <li>• Integrated water cycle concessions</li> <li>• Solid waste management systems</li> <li>• Waste to energy plants – incineration plants</li> </ul>
Economic - Energy	<ul style="list-style-type: none"> <li>• Independent power producer plants through PPAs</li> <li>• Electricity transmission lines</li> <li>• Gas pipelines</li> <li>• Energy efficiency (for instance, in public buildings or in urban lighting)</li> </ul>
Economic - ICT/Telecommunications	<ul style="list-style-type: none"> <li>• Optical fibre lines or networks</li> <li>• Telecommunications networks/broadband</li> </ul>
Economic - Tourism	<ul style="list-style-type: none"> <li>• National parks</li> <li>• Cultural heritage buildings</li> </ul>
Economic - Agribusiness	<ul style="list-style-type: none"> <li>• Grain storage PPPs</li> <li>• Irrigation projects</li> </ul>
Social - Health, education, security/prisons, courts/justice, social housing	<ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Student residences</li> <li>• University facilities</li> <li>• School facilities</li> <li>• Court buildings</li> <li>• Prison facilities</li> <li>• Social housing</li> </ul>
Social (others) – Sports, emergency response and local security, government accommodations	<ul style="list-style-type: none"> <li>• Sport centres</li> <li>• Fire stations</li> <li>• Police stations</li> <li>• Government offices</li> </ul>
Other potential sectors for PPPs	<ul style="list-style-type: none"> <li>• Defence: flight simulators or other simulators</li> <li>• Military facilities</li> <li>• National border posts or facilities</li> </ul>

Source: Author, from PPIAF

However, there is need for appropriate **PPP models for each sector and country** context to ensure that PPPs run smoothly. A single type of PPP may be given different names in different sectors or countries, despite the scope of the contract and the features being the same. This difference is often due to variations in legal tradition and legislation but may also relate to variations in common or standard language.

Various PPP models can be established, with different degrees of risk borne by private sector partners. The choice of partnership type often depends on the type of project, its nature, including, for example, whether it is to be launched on a greenfield or brownfield site, and the desired level of risk transfer:

- In a **greenfield concession**, a private entity builds and operates a new facility for a period and under conditions that are specified in a contract. Greenfield concessions may take a number of forms, including build-lease-transfer (BLT), build-operate-transfer (BOT), design-build-finance-operate-maintain (DBFOM), build-own-operate (BOO) and build-own-operate-transfer (BOOT).

- In a **brownfield concession**, a private entity takes over the management of an existing government-owned enterprise and also assumes significant risk in connection with the investments needed to extend, complete, or rehabilitate the enterprise facilities. Brownfield concessions may also take a number of forms, including rehabilitate-operate-transfer (ROT), rehabilitate-lease-rent-transfer (RLRT), and build-rehabilitate-operate-transfer (BROT).
- **Management and lease contracts** are also common, in accordance with which a private entity manages a government-owned facility for a certain period under conditions specified in a contract, while the government remains responsible for any investments that may be required. The rental by governments of mobile power plants that are owned and operated by private sector actors is also included in this category.

Figure XX: Status of PPP projects world-wide

[INSERT / AWAITING FIGURE 3 FROM EUNICE]

Source: Author, on the basis of data provided in the World Bank Private Participation in Infrastructure database.

## 1.2. Typology of players and stakeholders

As a complex form of project delivery, a PPP will involve many more players and stakeholders than a standard public procurement contract. Typically, the larger and riskier the project is, the more players are involved. And in turn, the more players are involved, the more time is required to negotiate the project and the more costs need to be covered.

The long-list typology of players that may be involved could include:

- Government bodies/public sector : central, regional or local/municipal government; sectoral authority/line ministry, finance ministry or other fiscal risk authority; PPP unit; central, regional or local-level parliament; state-owned companies and/or utilities;
- Sponsors and shareholders : industrial sponsors; financial/institutional investors; public sector sponsors;
- Lenders : development finance institutions (multilateral, bilateral or national); export credit agencies; commercial lenders; financial guarantors;
- Capital markets : investors in stocks or project bonds (including municipal, green/blue and sustainability bonds); trading counterparties for foreign exchange and interest rate swaps;
- Advisers : financial, legal, technical, environmental & social;
- Contractors : lead contractor, construction contractor, O&M contractors, subcontractors;
- Project insurers : primary insurer, reinsurer, political risk insurer;
- Others : local and international stakeholders (affected people, NGOs etc.); credit rating agencies; international PPP bodies.

Typically, players under a)-c) above are always involved in a PPP, while the remaining players might not be involved, depending on the specificities of each particular PPP.

### 1.3. The classic finance framework

While a public procurement project only has access to a limited list of financing sources (typically budgetary allocation, sovereign borrowing, sub-sovereign borrowing), a PPP can benefit from a much wider array of financing types and sources due to private sector involvement, allowing more flexibility in tailoring the financing package to the unique characteristics of the PPP project. These sources may include a mix of grants, loans, capital market instruments, guarantees and insurance policies. Some may be accessed during project preparation (i.e. before signing of the PPP), while the majority will be available at the stage of project implementation (i.e. after signing of the PPP). The suitability of financing instruments used by the PPP project is critical for success and reaching financial close on time.

During the **preparation phase**, the parties to the PPP, both public and private, face significant costs. While private parties will generally be expected to fund these costs from their own equity, the public party may be able to access external funding support depending on the legal framework. Such support could be a budgetary transfer or development loan from another branch of government (e.g. central government supporting a municipality) designed to cover costs between the pre-development and development phases, primarily to assess financial viability, funding gap, tariff, self-supporting financial structure etc.

For the **development phase, funding for the project** will combine (a) equity provided by the sponsors that own the project company ; and (b) debt extended by different lending groups (which could include multilateral or national development banks, export credit agencies, international or domestic commercial banks). PPP debt is generally structured as project finance, where the debt mostly relies on the project's revenues rather than its sponsors' own balance sheets. This limited recourse feature of project finance is well suited due to multiple parties involved (often several sponsors), contractual structure (infrastructure project economically self-supporting), transaction size (usually large), construction arrangements (typically a fixed price EPC contract). However when PPP projects are smaller in size, with simpler transactional structures or in less developed countries, a corporate finance structure (where the debt relies on the sponsor's balance sheet) could also be a viable option.

The debt financing of the project will require the **mitigation of certain risks** through hedging or insurance. Hedging typically relates to the risks of interest rate (loans are typically based on a floating interest rate, which can be fixed for example through an interest rate swap) and foreign exchange (in case project revenues are in local currency while the debt is in foreign currency, the foreign exchange rate can be protected to some extent through capital markets instruments). Insurance comes into play to protect the project from catastrophic risks linked to construction, assets losses (fire, natural disasters etc.), business interruption (absence of revenue during a catastrophic event), third-party liabilities etc. as well as political risks in some cases.

For the **larger and more sophisticated projects**, financing can involve more complex options combining project finance loans with non-conventional instruments such as project bonds (sold to financial investors on capital markets), Islamic finance (instruments specific to Sharia-compliant jurisdictions, e.g. asset leasing structures or Sukuks), partial risk insurance policies or guarantees (where institutions such as multilateral development banks or commercial insurers agree to cover for a fee certain risks on behalf of debt providers, typically political risks linked to war, civil commotion, revolution, nationalisation, currency

transfer etc.), or project guarantees (where for example the public party guarantees a specific risk such as traffic volume). However, such non-conventional structures create complexities, which entail additional transaction costs.

Project finance requires **security and collateral** over the assets of the project to be created in favour of the debt providers. This so-called “security package” may include a variety of instruments such as pledges over the project’s physical assets, bank accounts, company shares, receivables, insurance policies, etc. Should the project default in its debt repayment, lenders would be able to seize the project and/or its assets from the sponsors as a way to exercise their rights and seek repayment. Additionally the PPP contract itself between the public party and the private party is likely to include certain clauses protecting the lenders, notably step-in rights (giving lenders the right to “step in the shoes” of the sponsors, perform the obligations and exercise the rights of the project vis-à-vis the public party) and a compensation mechanism (where the public party may be obligated to pay certain financial compensation to the private party and its lenders upon the forced termination of the PPP contract).

#### 1.4. The sustainable finance toolbox

With the emergence of sustainability as a major development and investment theme across the world and notably in the infrastructure and energy sectors<sup>xiii</sup>, new financing instruments have been made available in recent years by financial institutions<sup>xiv</sup> and innovative financiers both to project developers and the public sector.

Sustainable finance refers to the process of **embedding environmental, social and governance (ESG)** considerations in investment decisions in the financial sector. The overarching objective is to drive long-term investment in projects and economic activities that support sustainable economic growth while contributing to international climate and environmental goals (e.g. climate change mitigation and adaptation, resilience, pollution prevention, circular economy), as well as social and governance principles. At the same time, these ESG considerations play a key role to ensure regulatory compliance and mitigate investment risks. As such sustainable finance contributes to the global sustainability agenda notably the 2030 SDGs<sup>xv</sup>, the Addis Ababa Action Agenda for financing sustainable development<sup>xvi</sup>, the Paris Agreement’s (and subsequent COPs<sup>xvii</sup>) climate goals<sup>xviii</sup>, the G20 Principles of Quality Infrastructure Investment<sup>xix</sup>, the EU sustainability framework<sup>xx</sup>.

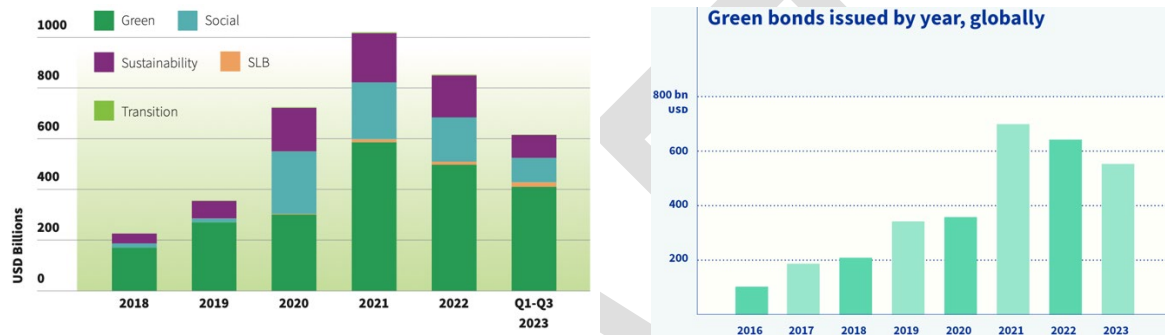
In practice, sustainable finance instruments require **projects to comply demonstrably with sustainability standards** and regulations, offering as counterparty the benefit of improved financing terms (i.e. typically longer maturity and lower interest rate). Such instruments can finance activities that are already aligned on environment and climate objectives (green finance) or investments intended to reduce current greenhouse gas emissions and mitigate environmental impacts to facilitate a transition to a higher sustainable performance and climate-neutral economy (transition finance<sup>xxi</sup>). Some regulators (notably the EU) have been active in setting forth qualification criteria to define what represents sustainable finance. For developing countries, official and private donors are making grants or concessional (bonified) credit facilities available to blend with other financing sources as a way to encourage the implementation of projects contributing to the SDGs.



The sustainable finance instruments have risen exponentially in recent years, benefitting from the pivotal role of certain financial institutions<sup>xxii</sup> (e.g. MDBs, Central Banks, Stock Exchanges, others), and some major examples are the following:

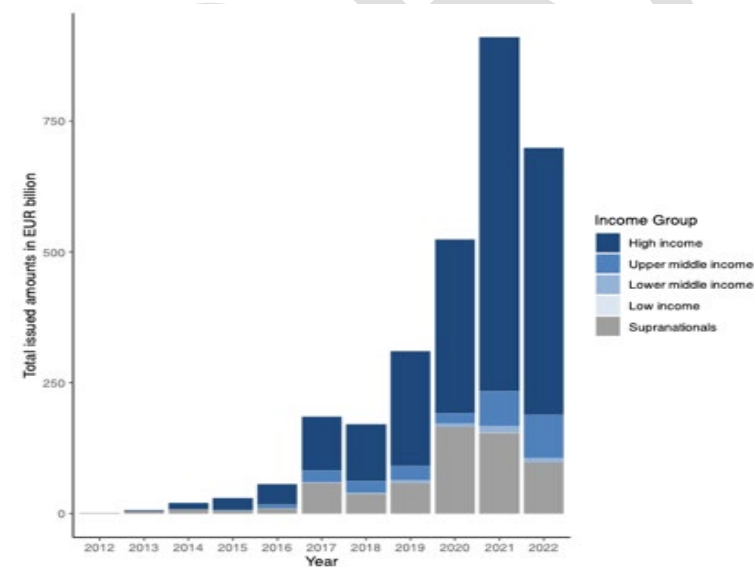
**Green, Social & Sustainability (GSS) bonds:** fixed-income debt instruments, similar to classic bonds except that proceeds are exclusively allocated to activities or assets achieving green and/or social impacts, with independent review and certification. Diverse issuers and sectors. International principles<sup>xxiii</sup> and frameworks for their issuance, including recent EU regulation<sup>xxiv</sup>. The cumulative GSS aligned bonds market volume exceeded US\$4 trillion in Q3 2023<sup>xxv</sup>.

**Figure XX: Cumulative ESG / GSS+ aligned bonds market volume (2018 - Q3 2023)**



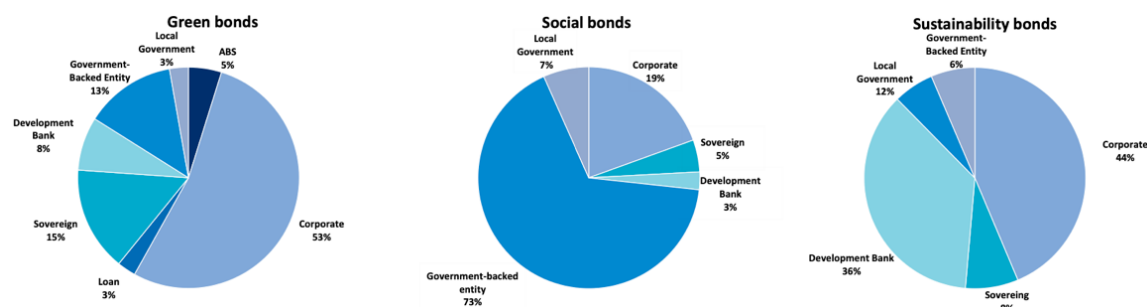
Source: Climate Bonds Initiative (“State of the market, Q3 2023”) and EU’s projections (website)

**Figure XX: Green, social and sustainability bonds issued amounts by country income group**



Source: OECD “Green, social and sustainability bonds in developing countries: the case for increased donor co-ordination” (2023).

Figure XX: 2021 issuer breakdown of green, social and sustainability bonds



Source: “OECD Report on green, social and sustainability bonds issued by MDBs and its use for infrastructure financing” (2023) and Climate Bonds Initiative.

**Sustainability-linked bonds (SLBs):** the financial and structural characteristics of the bonds vary depending on the issuer’s achievement of defined sustainability objectives, with explicit commitment to future improvements in sustainability outcomes (performance-based) and proceeds used for general purpose (corporate-based). Similar principles<sup>xxvi</sup>.

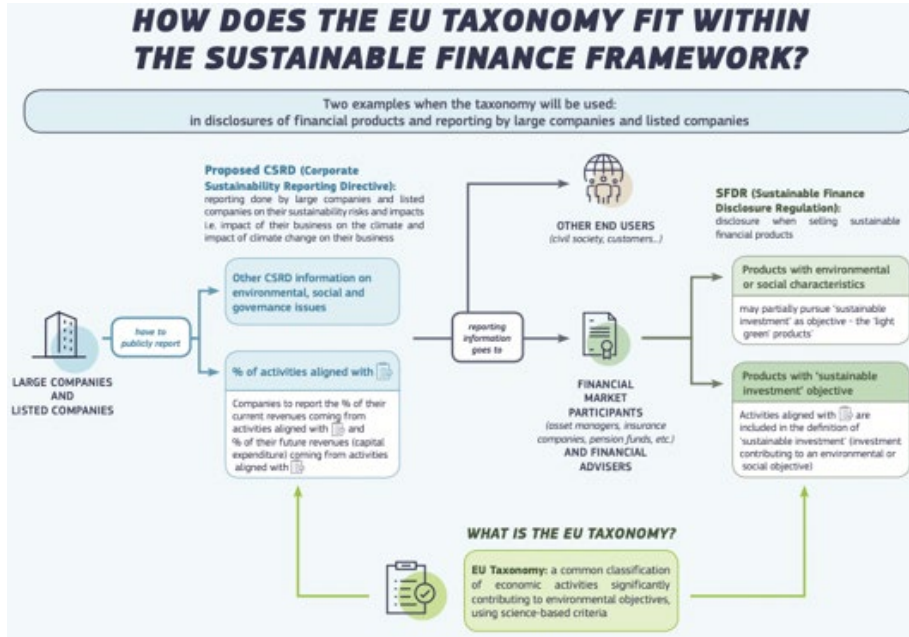
**Green, Social & Sustainability-linked loans:** loans, not bonds, but with specific principles<sup>xxvii</sup> similar to GSS bonds. The fundamental criteria is the utilisation of the loan proceeds for green and/or social projects, or the borrower’s achievement of predetermined sustainability performance objectives.

**ESG-aligned Equity investments:** equity investments by specialised investors pursuing specific ESG metrics (e.g. SDGs and Paris Agreement alignment) in order to promote sustainability.

**ESG Credit enhancement instruments:** guarantees and other de-risking financial instruments, both for debt and equity, linked to specific ESG objectives.

**EU sustainable finance products:** the European Green Deal sets out goals for the sustainable economic, social and environmental transition of the EU and its 27 member states until 2050. In particular, through the EU Sustainable Finance Agenda<sup>xxviii</sup> and its main legislative references and finance products, making sustainability considerations an integral fundamental part of its financial policy.

Figure XX: Relationship between the EU Taxonomy, CSRD, and SFDR



Source: European Commission

**Blended finance:** strategic use of development finance (typically grants or concessional loans) for the mobilisation of additional finance in developing countries towards sustainable development, bridging the SDGs' investment gap. A blended finance structure<sup>xxix</sup> involves donor governments, MDBs, development finance institutions and other public-private actors, seeking to de-risk and scale up projects.

Figure XX: General scheme of blended finance and its process



Source: OECD

DRAFT

## **2. The project cycle: from project preparation to project post close monitoring - what can be improved at each stage?**

2.0 Public Private Partnership (PPP) Projects have been attracting private investments in public infrastructure projects in many sectors. The most successful sectors in attracting private investments are: Roads, Sea Ports, Airports, Metro Rail, and Tourism. There are deserving sectors which are yet to attract sufficient investments from private sector are: Health, Education, Water, Sanitation, Sewerage, and Waste Management. But, there is still scope for attracting more private investment in public infrastructure projects in all the sectors. Hence, to attract more private investment and to achieve the targets of Sustainable Development Goals (SDG) by 2030, improvements are needed in each stage of the project cycle. Following are some of the suggestions for improvement in each stage of project cycle.

### **2.1. The project preparation phase and how to make it a success**

2.1.1 The success of a PPP Project depends on the sincere and earnest efforts of all the partners in a project. The two key partners are public partner and a private partner. The other important partners are lenders, user public, and public in general. But the public partner plays an initiating and key role. The success depends on how well the public partner packages and presents the opportunity to the private partner, and addresses the interests of the other partners in the PPP project. The success also depends on how well the public partner prepares a project for each stage of the project cycle. First stage is project identification; Second stage is project development; Third stage is project implementation.

2.1.2 Project preparation includes project identification and project development. Project preparation is the first stage where the project should be made reasonably attractive to all project players. To make the project attractive, first the opportunity and the public need for the project should be highlighted, followed by strong political will and commitment from the public partner. The public partner in turn has to take care of the following things: (a) setting up of a PPP unit with skilled resources; (b) creation of a stable environment with legally enforceable acts, rules, regulations, guidelines; (c) engagement of an experienced Advisory Firm with technical, financial, legal, environmental expertise; (d) Identification of funding agencies to fund the project preparation cost or set up a dedicated fund to bear the costs. For example, India Infrastructure Project Development Fund is set up by Government of India.<sup>1</sup> (e) preparation of feasible bidding documents to ensure transparent tendering process: The UNECE PPP Guiding Principles<sup>2</sup>, section 7, and Zero Corruption Standard<sup>3</sup>, section IV, provides extensive advice on how best to establish competitive tension through a fair, transparent and effective tendering process; (f) selection of

---

<sup>1</sup> See Guidelines on India Infrastructure Project Development Fund, at: [https://www.pppinindia.gov.in/guidelines\\_for\\_iipdf](https://www.pppinindia.gov.in/guidelines_for_iipdf)

<sup>2</sup> See UNECE's Guiding Principles for People-first PPPs in support of the Sustainable Development Goals, revised in 2022, at: [https://unece.org/sites/default/files/2023-06/ECE\\_CECI\\_WP\\_PPP\\_2022\\_07-en.pdf](https://unece.org/sites/default/files/2023-06/ECE_CECI_WP_PPP_2022_07-en.pdf)

<sup>3</sup> See UNECE's Standard on a Zero Tolerance Approach to Corruption in PPP procurement, revised in 2023, at: [https://unece.org/sites/default/files/2023-10/ECE\\_CECI\\_WP\\_PPP\\_2023\\_03-en\\_0.pdf](https://unece.org/sites/default/files/2023-10/ECE_CECI_WP_PPP_2023_03-en_0.pdf)

qualified private partner; (g) creation of project pipeline to create sustained interest to private players (h) creation of market interest by conducting national and international road shows.

2.1.3 To increase the success rate in project preparation, the following improvements are suggested:

- (a) To make the project attractive enough to the private partner, the projects internal rate of return under pessimistic scenario should be more than the estimated cost of capital by a reasonable and attractive margin.
- (b) To protect the interests of the public partner and the private partner against cartelised bidding and predatory bidding, the bid should be accepted only if it is within a specified range of variation to the bid reference rate given in the bidding documents. Alternatively, Fixed Budget Selection method<sup>4</sup> should be explored, where the market is mature, the cost can be assessed with reasonable accuracy. In this type of bidding the finance parameter is fixed and the bidder is selected on the technical competency
- (c) All the assumptions made in feasibility report should be made sacrosanct. If there is a variation by more than a specified range, the loss should be compensated to the private partner with a pre agreed rates.
- (d) New projects should be done on pilot basis before taking up on a massive scale.

## **2.2 How to turn a successful project on paper into a successful live situation? It is a relationship**

2.2.1 A project is called successful on paper, if the project is technically feasible, financially feasible, economically viable, legally tenable, and holds value for money and answers population needs on a short and long terms basis. But to make the project successful in a live situation, public player should not only select right private player, who has technical competency, financial competency and a good track record, but has intention to strike a great relationship with public partner. To engage effectively with private partner, the public partner should have well trained PPP Experts in his team with skilled team members. There should be a continuous capacity building to the team. The private partner should not be selected purely on least cost method. The private partner should be given a scope for earning a reasonable rate of return on its investments and efforts. Selecting bidders purely on least cost method encourages predatory bidding. It kills competition and the potential competitors. It is no worse than the cartelised bidding. To ensure success of the project, all the assumptions made in the feasibility report should be taken as sacrosanct and reference point. Any adverse deviations beyond a certain pre-determined percentage in project cost estimation, demand assessment, tariff rates, interest rates, despite the efficient efforts by the private partner, should be compensated by the public partner. The mechanism is said easy than done, but this is the key.

2.2.2 There should be a strong project monitoring team set up by the public partner to manage the project as per the PPP agreement, so that the instances of delays or defaults by public partner and private partner will be minimised. There should be strong conflict resolution team set up by the public partner with

---

<sup>4</sup> See para 15.1 about Fixed Budget Based Selection (FBS) method at: <https://dpe.gov.in/general-instructions-procurement-and-project-management>

a detailed conflict resolution procedure to resolve the conflicts. All the risks faced by the public partner, private partner, lenders, contractors should be proactively resolved with detailed risk mitigation methods.

2.2.3 Above all, the relationship among the public partner, private partner, and all counter parties should be nurtured continuously with regular interactions to overcome all the hurdles in successful execution of the concession agreement.

### **2.3 Is the risk allocation model broken? Are private partners bearing risks they are not best placed to manage? Should lenders be prepared to take more risk?**

2.3.1 Risk is an event which adversely affects the project revenues or project costs or both, than what is assumed in the project documents like feasibility report. Projects face risks during planning phase, procurement phase, development phase, construction phase, operations phase and even during handover phase. The risks faced are broadly categorised as: site risk, design risk, construction risk, operation risk, interest rate risk, demand risk, price risk, market risks, liquidity risk, currency risk, environmental/social risks, force majeure risks, regulation risk, political risk, technology risk, etc. In recent years, projects are facing the following risks: (a) Increase in construction risks due to increase in construction periods; (b) Increase in interest rate risk due to increase in the market interest rates and even due to the increase in the tenor of the projects; (c) Increase in insurance risk due to instability of economies and governments; (d) Increase in regulation risks due to change in regulation; (e) Increase in demand risk due to optimistic projection of demand.

2.3.2 Risks affects adversely the project revenues or project costs or both. Hence, the risks need to be managed well by identifying them, monitoring them, and mitigating them. But, who manages the risks? Risks are managed by the parties to the project, who are public partner, private partner, lenders, contractors, O&M Operators. Who should manage what risk depends on who has the skills, ability and resources to manage the risk efficiently with minimum cost.

2.3.3 Risk management capabilities of each partner may be different. According to their capability, the risks are to be allotted. But the risk absorption capacity in terms of monetary consequences of risk is limited to all the parties to the project except the public partner. Public partner gets interest free revenues through taxes from the public without any obligation to repay. Whereas all other parties to the project gets interest bearing funds with an obligation to repay in fixed period of time with penal clauses in case of default. All the parties to the project except public partner keeps certain profit margin. If the cost consequences of the risk are beyond the profit margin, the chances of the parties going bankrupt is high. Hence, the private partners have to price the risks they take; so the more risk they have to endorse the higher their price will be. But, competition amongst intending bidders will help lowering the prices despite including the price of the risks. Public partner should push the competition to get the best prices, but still be careful not to expose the bidders to risks unreasonably: indeed, private sectors are employers and therefore putting them in financial danger with too much risks may lead to social employment issues like in UK and other countries.

Hence, the public authority should extend guarantees where ever it is required or encourage parties to the project to take adequate insurance. This may lead to increase in cost of the project, but mitigates the risks to a large extent. However, public authority should provide sufficient provision in the contract agreement to compensate the parties to the contract adequately, if the risk is beyond their capacity to manage. Details of the risk identification, mitigation and monitoring is covered in the 7<sup>th</sup> Chapter of Guidelines for Post-Award Contract Management for PPP Concessions issued by Government of India with funding support from the World Bank<sup>5</sup>.

## **2.4 How to avoid a contract renegotiation?**

2.4.1 The less complex a transaction, the less is the likelihood for the need to renegotiate. Having said that, PPP Contracts are long term contracts, some of them may even last more than 25 years. A contract can capture all the past risks and provide for their mitigation, but cannot fore see all the unexpected future risks and provide for their mitigation. For example, COVID-19 pandemic and the 2021 energy crisis have resulted in supply chain shortages and inflation. Hence, how to renegotiate the contract, if unexpected risks happen, should be embedded in the contract documents.

2.4.2 Contracts are generally signed between two equal partners. But in PPP, the contract is signed between two unequal partners. The public partner gets interest free money from the public without any repayable obligations. Whereas, the private partner gets the interest bearing money from the lenders with repayable obligations. The risk bearing capacity is not the same. Hence, unless the risk is caused by wilful negligence by the private partner, the monetary effect of the risk should be mitigated by the public partner so that the project implementation will not get affected adversely.

2.4.3 A contract comes to mediation, or renegotiation or arbitration or litigation, if the private party gets affected financially way beyond the assumptions made in the feasibility reports. One of the way to limit the losses is to terminate the concession agreement. The compensation on termination is scrutinized by candidates: too much exposure will prevent them from bidding and lower competition to the detriment of the public partner. Therefore, it is important that public partner offers in the contract reasonable indemnities in case of termination at no fault of the private partner. The other way is for both the partners to participate willingly for negotiation. Usually the contracts provide the options differently depending on the reason of renegotiation or termination: change in law, market changes, demographic evolution, etc., and offers contractual solutions. The details of reasons for contract renegotiation and how to address the same is

---

<sup>5</sup> See at:

[https://www.pppinindia.gov.in/report/Guidelines%20on%20Post%20Award%20Contract%20Management%20of%20PPP%20Concessions.pdf\\_1685082970.pdf](https://www.pppinindia.gov.in/report/Guidelines%20on%20Post%20Award%20Contract%20Management%20of%20PPP%20Concessions.pdf_1685082970.pdf)



covered in, “Developing a Framework for Renegotiation of PPP Contracts”<sup>6</sup>, issued by Government of India, funded by DFID, facilitated by World Bank..

## **2.5 When things go wrong – consequences**

2.5.1 PPP Contracts are a long term contracts. From time to time, future always gives surprises than anticipated. But when the issues have not been properly anticipated before contract signature, the chances of things going wrong anytime is high. Following are some of the reasons for things going wrong: (a) It may be due to force majeure issues; (b) default by public authority; (c) default by private partner; (d) differences in understanding the clauses in the contract; (e) breakdown of relationships; (f) and breakdown of common cause of the project. As a consequence, the parties to the project may suffer financially, the users may lose continuity of services, the continuity of the contract may get affected.

2.5.2 To make a PPP successful, it is mandatory to explore every risk and find a contractual mitigation in the course of the due diligence process. Following are some of the ways in which the consequences of the things going wrong can be addressed and mitigated. First, there should be project monitoring unit established by the project authority, which will regularly monitor the project and reduce the chances of the things going wrong; second, there should be a project co-ordination committee with members from public partner, private partner, contractors, O&M Operators, lenders, and user public to maintain healthy relationship and achieve the common cause of the project; third, there should be well established conflict resolution mechanism to resolve the conflicts timely and smoothly amongst partners so to avoid things going into lengthy litigation in Court Rooms; fourth, there should be period of time to freeze the termination mechanism, implementation of a step in process from lenders and identification of a new private partner to ensure the continuity of the services to the user public.

## **2.6 Hand-back arrangements and real life issues**

2.6.1 A good project is one that ends well. Hence hand-back of an asset is as important as creation and operation of an asset. Because the users of an asset would accustom to enjoying certain services and comforts. Any disruption in the quality and continuation of the services will create lot of discomfort and even civil unrest. It creates a negative impact on the government. Every good PPP contract include a Handback clause that defines the process of handback, the valuation of assets, and the level of quality of the assets expected from private partner at the time of handing over of the asset.

---

<sup>6</sup> See it at:

[https://www.pppinindia.gov.in/report/Developing%20a%20Framework%20for%20Renegotiation%20of%20PPP%20Contracts.pdf\\_1685171188.pdf](https://www.pppinindia.gov.in/report/Developing%20a%20Framework%20for%20Renegotiation%20of%20PPP%20Contracts.pdf_1685171188.pdf)

2.6.2 Hand-back of assets happens at the end of the concession period or due to termination of concession agreement. Hand back is usually organised in a time span of 6 to 18 months', prior to the end of the contract. Termination of concession agreement happens due to (a) force majeure issues; (b) public partner default; (c) private partner default; (d) unilateral termination by either partner; (f) mutual consent.

2.6.3 The real life issues in hand-back of assets may be different in case of end of the concession period and due to termination. But some of the major issues are (a) the condition of the remaining residual life of the asset is not as per the agreed terms; (b) all the agreed documents, IP rights, licenses, permits are not handed over; (c) delay in identifying the new private partner to continue the services to the end users; (d) legal litigation in arriving at the compensation in case of termination; (e) failure in maintaining reserve funds.

2.6.4 There are several real life issues at the time of hand-back of assets. Private partners try their best to maximise their return and minimise their expenses. In case of hand back of assets at the end of the concession period, the private partner would like to spend as little money as possible. Following are some of the ways to mitigate the real life issues: (a) first there should be clarity with the public partner on what they plan to do with the hand backed asset; (b) a well-qualified takeover team needs to be mobilised by public partner till a new private partner is identified; (c) contract agreement and their mirror clauses in the subcontracts, should cover comprehensively the handback clauses, working condition of the assets, maintenance standards, terminations clauses, termination payments; (d) there should be well trained project monitoring team to oversee the implementation of the contract clauses; (e) there should be a project co-ordination committee consisting of all parties to the contract to iron out the difference; (f) there should be a clear clause stating the continuation of the services of the private partner till the identification of a new private partner or till alternate arrangement is made; (g) there should be proper conflict resolving team in case, hand-back of assets falls into conflicts; (h) there should be incentive to the private partner to complete the project and disincentives to default; (i) there should be pre-determined amount of maintenance reserve fund or withholding certain part of payments to the private player to continue the maintenance of services, even if there is a default by the private partner.

2.6.5 Following are some of the guidance material on how to address the real life issues in hand-back arrangements: (a) Hand-back of assets at end of contract period is covered in chapter 9 of Guidance on PPP Contractual Provisions issued by World Bank<sup>7</sup>; (b) Managing the Contract – Operations and Hand-Back is covered in chapter 8 of The APMG Public-Private Partnership (PPP) Certification Guide<sup>8</sup>; (c) Amendment and Termination of PPP Contracts is covered in article 25 of Standard on Public-Private

---

<sup>7</sup>See at: [https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2021-03/Guidance%20on%20PPP%20Contractual%20Provisions\\_2019%20edition.pdf](https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2021-03/Guidance%20on%20PPP%20Contractual%20Provisions_2019%20edition.pdf)

<sup>8</sup>See at: <https://ppp-certification.com/sites/www.ppp-certification.com/files/documents/chapter-8-operations-handback.pdf>

Partnerships issued by UNECE<sup>9</sup>; (d) Default and termination is covered in chapter 7 of Managing PPP Contracts After Financial Close issued by GLOBAL INFRASTRUCTURE HUB<sup>10</sup>.

## **2.7 Recommendations - Following are some of the important areas to be given more emphasis for the success of a PPP project at each stage of the project cycle:**

2.7.1 The starting point for the success of a PPP project is a deep knowledge of population needs and creation of an enabling environment with legislation consisting of acts, rules, regulations, guidelines, policies, model bidding documents, PPP unit.

2.7.2 Preparation of feasibility report consisting of detailed technical, financial, economic, value for money and legal analysis, where all assumptions are kept sacrosanct. Any deviations from the assumptions, which affects the partners to the project adversely should be compensated with pre agreed compensation.

2.7.3 The bidding parameters by being fair and balanced should ensure that there won't be any cartelised bidding and predatory bidding. To the extent possible, Fixed Budget Selection Model should be followed, where the financing cost can be estimated with reasonable accuracy. The selection criteria of bidders should be as detailed as possible and as less subjective as possible to ensure a fair comparison of the bids. Variation from a technical backbone scope of work should be permitted on a limited basis.

2.7.4 There should be strong project monitoring team to oversee the construction and operation of the project. Communication with the population on the performance of the project must be organized to increase project acceptance. There should be strong dispute resolution team to focus on the continuity of public service and trying as much as possible to anticipate and avoid conflicts. There should be strong project coordination team to maintain cordial relationship among all the partners in the project. Strong and healthy relations can overcome most of the difficulties in success of a project.

2.7.5 Robust risk mitigation and fair risk compensation methods should be specified for both the known risks and unforeseen risks. Well trained project transition team should be identified for smooth takeover of the project under any eventuality of take back of the project. Finally, a project should benefit all the partners. At the end, a project should ensure a win-win situation to all.

---

<sup>9</sup>See at: [https://unece.org/sites/default/files/2023-11/2319184\\_E\\_web.pdf](https://unece.org/sites/default/files/2023-11/2319184_E_web.pdf)

<sup>10</sup>See at: [https://content.gihub.org/live/media/1465/updated\\_full-document\\_art3\\_web.pdf](https://content.gihub.org/live/media/1465/updated_full-document_art3_web.pdf)

### 3. Value for money and value for people

#### 3.1. Reference for governments and member states: value for money

3.1.1 Assessment of value for money (VFM) is very important when public projects are given to private partner. VFM assess whether PPP projects give more value compared to traditional public procurement. Value is to be assessed in terms of qualitative value or value for people or economic cost benefit analysis and quantitative value or public sector comparator (PSC). Qualitative value to be assessed in terms of competency, resources management, risk management, time management, service standards, impact on user public, impact on society. Quantitative value to be assessed whether the net present value of developing a project with a private partner is better or public partner is better. Quantitative assessment to be done first at the time of feasibility stage and second at the time of bid evaluation stage.

3.2.2 Value for money gains importance when multiple PPP projects are to be taken up by public partner, but there are limited resources to support the PPP projects. So the selection preference or the order of priority goes to the PPP project which gives more value for money in terms of both qualitatively and quantitatively compared to other PPP projects.

3.1.3 Value for money assessment may not be of much importance if only one PPP projects is to be taken up, which is of greater importance to the user public and the society in general, but the public partner has exhausted both the budget space and the borrowing space. However, it is still better to assess value for money to know how much the variance is if the project is taken up by public partner or by private partner, whether the variance is acceptable, whether the variance is fiscally affordable. Based on the assessment, public partner can take an informed decision.

3.1.4 The complete details of value for money is given in module-7: value proposition of projects, given in PPP Guide for practitioners, issued by Government of India.<sup>11</sup> It is also given in chapter 3.2.4: Assessing Value for Money of the PPP, given in Public – Private Partnerships Reference Guide issued by World Bank Group.<sup>12</sup>

---

<sup>11</sup> See at: [https://www.pppinindia.gov.in/report/PPP%20Guide%20for%20Practitioners9a0d.pdf\\_1685171131.pdf](https://www.pppinindia.gov.in/report/PPP%20Guide%20for%20Practitioners9a0d.pdf_1685171131.pdf)

<sup>12</sup> See at: <https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/documents/PPP%20Reference%20Guide%20Version%203.pdf>

## 3.2. Monetizing social impacts

The general structure of financial analysis for PPP structures & financings is through using value for money, cost-to-benefit, financial model analysis where differing impacts are monetized to be reflected in the analysis. Developing a method on how to monetize impacts in efficient markets, in which prices are measurable, is quite simple.

However, calculating social benefits and costs can be complex. Market prices often do not capture the social benefit and/or social costs associated with production or consumption of a good/service. Meanwhile, the “people” perspective of PPPs brings to the front the need of incorporating a net social value. While adding on the social value to financial analysis considerations are needed on:

- 1) Impacts on input and output markets
- 2) Shadow pricing using market prices or benefit transfers
- 3) The use of non-market valuation methods when a market does not exist

A shadow price is an estimated monetary price used to value an item, good or service that is not traded on a market, or the market price does not reflect the true value.

In the social perspective, all impacts born by the project must be included in the analysis. This includes any social impacts, environmental impacts and corrections for market failures or distortions. The goal is to evaluate an intervention from the viewpoint of society to determine whether the project, program, or policy is beneficial to society or the economy as a whole. This is done at an aggregate perspective level. For example, if the project is for the development of a new local road, intangible benefits including time saved, safety improvements, as well as environmental impacts must be accounted for in the analysis. These values would need to be predicted and monetized as part of the process covered in the analysis. Shadow prices are used to reflect the true value of goods and services in a social perspective.

### 3.3. Case study on successful impact investment and impact on people project:

Visakhapatnam Sewerage & Recycled Water Project: A green initiative by Vizag Smart City, Greater Visakhapatnam Municipal Corporation, and Government of Andhra Pradesh, India.

#### 3.3.1 Challenge:

The city of Visakhapatnam with a population of 2.4 million people and with several industries requires a water of 498 Million Liters per Day (MLD) as on year 2021. But the available supply is 400 MLD. There is a deficit of 98 MLD. This deficit is expected to increase to 587 MLD by year 2041. This water deficit is expected to create severe shortage of drinking water to the citizens and to the industries.

#### 3.3.2 Description of the project:

The present project is for setting up of 79 MLD Waste Water Treatment Plant (WWTP) for generating water usable by Industries. The project is India’s largest single location tertiary treatment plant.

The project covers a sewerage collection network of 655km and covers a population of 6,40,000. The project is taken up in two packages. The first package covers 46 MLD with an investment of Rs.405 crs (US\$ 48.67 million; 1US\$ = INR 83.22). The first package is completed and is operational now. The Operational & Management (O&M) contract is for 15 years. The second package covers 33 MLD with an investment of Rs.514 crs (US\$ 61.76 million). The second package is under construction and is expected to be completed by 2024. Two bulk users of water for industrial consumption is identified through negotiation and agreement is signed. Water is already supplied to one of the users. The user fee is expected to service both debt and equity.

### **3.3.3 Partners in the Project:**

Vizag Smart City, and Greater Visakhapatnam Municipal Corporation are the public partners in developing the project. They have provided the equity. M/s Tata Projects, who is selected through competitive bidding, is the private partner implementing the project by construction and operation of the project. Term Loan is arranged by public partners by asset monetization. The entire debt and equity funding is provided by public partners. The private partner is constructing the project and operating the project for 15 years. Andhra Pradesh Urban Infrastructure Asset Management Limited (APUIAML) is the Transaction Advisor and program manager for the project.

### **3.3.4 Contribution to the outcome “Stakeholder engagement”:**

The project is a green initiative. It is to reduce the stress on potable drinking water by supplying recycled sewerage water to industries through effective water management. The city is marching towards zero wastewater discharge. Some of the benefits of the project are: (a) Sustainable Development: Safe disposal of sewerage by recycling and reuse; (b) Conservation of Fresh Water: Drinking water availability is increased by recycling 79 MLD sewerage; (c) Clean City Initiative: Sewerage network is increased and improved. The project is expected to be replicated to fill the future water needs of other cities. The project is value for people and value for planet.

=====

---

<sup>i</sup> See GIH’s Funding and Financing Infrastructure portal at: <https://www.gihub.org/funding-and-financing-infrastructure/>

---

ii See PPIAF's website at : <https://www.ppiaf.org>

iii See OECD's report on Improving the Landscape for Sustainable Infrastructure Financing, 2023, at : <https://www.oecd.org/finance/improving-the-landscape-for-sustainable-infrastructure-financing-bc2757cd-en.htm>

iv See UNECE's Guiding Principles for People-first PPPs in support of the Sustainable Development Goals, 2022, at : [https://unece.org/sites/default/files/2023-06/ECE\\_CECI\\_WP\\_PPP\\_2022\\_07-en.pdf](https://unece.org/sites/default/files/2023-06/ECE_CECI_WP_PPP_2022_07-en.pdf)

v The PIERS methodology is available at: <https://unece.org/ppp/em>.

vi See the International Monetary Fund's website for a detailed document on the COFOG classification : <https://www.imf.org/external/pubs/ft/gfs/manual/pdf/ch6ann.pdf>

vii COFOG classes : Electricity (70435), Non-electric energy (70436).

viii COFOG classes : Road transport (70451), Water transport (70452), Railway transport (70453), Air transport (70454), Pipeline and other transport (70455), Street lighting (70640)

ix COFOG classes : Waste management (7051), Waste water management (7052), Pollution abatement (7053), Water supply (7063).

x COFOG classes : Communication (70460), Broadcasting and publishing services (70830).

xi COFOG classes : Fire protection services (7032), Law courts (7033), Prisons (7034), Multipurpose development projects (70474), Protection of biodiversity and landscape (7054), Environmental protection n.e.c. (7054), Housing development (7061), Community development (7062), Hospital services (7073), Public health services (7074), Recreational and sporting services (7081), Cultural services (7082), Education (709).

xii For example the 2004 Eurostat Decision - Treatment of Public-Private Partnerships", available at: <https://ec.europa.eu/eurostat/documents/1015035/2041337/Treatment+of+PPPs.pdf/af9e90e2-bf50-4c77-a1a0-e042a617c04e>.

xiii See among international institutions and organizations : the OECD ITF's Transport Outlook (2023) and its Decarbonising Transport Initiative (<https://www.itf-oecd.org>), the G20 Global Infrastructure Hub's Outlook (<https://outlook.gihub.org>), the PIARC/World Road Association's references for the road sector (<https://www.piarc.org/en/>), the International Energy Agency's World Energy Outlook 2023 and IRENA for the energy sector (<https://www.iea.org/reports/world-energy-outlook-2023> / <https://www.irena.org>).

xiv See institutional financial programmes such as : the Green Climate Fund part of the UN Framework Convention on Climate Change to assist developing countries (<https://www.greenclimate.fund>), the EU institutions and EIB's financial initiatives in the EU about sustainability and economic transition (<https://www.eib.org/en/index.htm>), the MDBs' programme including the EBRD's Green Cities (<https://www.ebrdgreencities.com>), the World Bank's Global Facility to Decarbonize Transport and Global Road Safety Facility (<https://www.worldbank.org/en/programs/global-facility-to-decarbonize-transport> / <https://www.roadsafetyfacility.org>).

xv See "The 2030 Agenda for Sustainable Development", i.e. the 17 Sustainable Development Goals (SDGs), adopted by all United Nations Member States in 2015, available at: <https://sdgs.un.org/goals>.

xvi See "The Addis Ababa Action Agenda on Financing for Development" (2015), global framework for financing sustainable development by aligning financing flows and policies with economic, social and environmental priorities, including development, blended and climate finance, available at: [https://sustainabledevelopment.un.org/content/documents/2051AAAA\\_Outcome.pdf](https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf).

---

<sup>xvii</sup> See sessions, documents, decisions and final resolution at the United Nations Climate Change Conference (Conference of the Parties - COP28) of Dubai (2023), available at: <https://unfccc.int/cop28>.

<sup>xviii</sup> See “The Paris Agreement”, legally binding international treaty on climate change adopted by 196 Parties at the United Nations Climate Change Conference (Conference of the Parties - COP21) in Paris on December 2015, entered into force on November 2016, available at: <https://unfccc.int/process-and-meetings/the-paris-agreement>.

<sup>xix</sup> See the “G20 Principles of Quality Infrastructure Investment” and related “OECD Compendium of Policy Good Practices for QII”, available at: <https://www.oecd.org/mcm/2020/Compendium-CMIN-2020-3-EN.pdf>.

<sup>xx</sup> See European Commission’s website regarding the European Green Deal and its current delivering, available at: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en).

<sup>xxi</sup> See the “OECD Guidance on Transition Finance” (2023), available at: <https://www.oecd.org/environment/oecd-guidance-on-transition-finance-7c68a1ee-en.htm>.

<sup>xxii</sup> See, among the financial institutions, specific MDBs’ initiatives including the “OECD Report on green, social and sustainability bonds issued by MDBs and its use for infrastructure financing” (2023), available at: [https://one.oecd.org/document/DAF/CMF/AS\(2023\)3/REV2/en/pdf](https://one.oecd.org/document/DAF/CMF/AS(2023)3/REV2/en/pdf). Central Banks as the European Central Bank, the UN Sustainable Stock Exchanges Initiative with the main international Stock Exchanges (at : <https://sseinitiative.org>), the Banking, Securities and Markets Authorities (e.g. EBA, ESMA, SEC, IOSCO), Ministries and national banks, sovereign investment funds, specialised institutional and infrastructure investors (e.g. asset managers, pension funds, insurance companies).

<sup>xxiii</sup> See in particular ICMA “Green bond principles”, “Social bond principles”, “Sustainability bond guidelines”, available at: <https://www.icmagroup.org/sustainable-finance/>. Other GSS+ bonds taxonomies and standards (e.g. Climate Bonds Initiative, MDBs’ “Common principles for climate mitigation and adaptation finance tracking”).

<sup>xxiv</sup> See “Regulation (EU) 2023/2631 of the European Parliament and of the Council on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds” (November 2023), available at: [https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard-supporting-transition\\_en](https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard-supporting-transition_en) / <https://www.consilium.europa.eu/en/press/press-releases/2023/10/24/european-green-bonds-council-adopts-new-regulation-to-promote-sustainable-finance/>. European green bond standard, all the proceeds of European green bonds invested in economic activities and sectors aligned with the EU taxonomy for sustainable activities (flexibility for sectors not yet covered and specific activities).

<sup>xxv</sup> See Climate Bonds Initiative (international state of the market), EU, WB, Bloomberg, Stock Exchanges and other main databases about ESG / GSS+ bonds, available at: <https://www.climatebonds.net> / <https://www.consilium.europa.eu/en/infographics/european-green-bonds/> / <https://thedocs.worldbank.org/en/doc/98c3baab0ea4fc3da4de0e528a5c0bed-0340012023/original/GSS-Quarterly-Newsletter-Issue-No-2.pdf> / <https://www.bloomberg.com/professional/>.

<sup>xxvi</sup> See ICMA “Sustainability-linked bond principles” (2023), available at: <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slb/>.

<sup>xxvii</sup> See in particular LMA “Green loan principles”, “Social loan principles”, “Sustainability-linked loan principles” and Guidance, available at: <https://www.lma.eu.com/sustainable-lending/resources>.

<sup>xxviii</sup> See on the European Commission’s website, the delivering of the European Green Deal and in particular the EU Sustainable Finance Agenda with its main legislative references and finance products, available at: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en) / [https://finance.ec.europa.eu/sustainable-finance\\_en/](https://finance.ec.europa.eu/sustainable-finance_en/).



---

<sup>xxix</sup> See OECD “Making blended finance work for the Sustainable Development Goals”, available at : <https://www.oecd.org/development/making-blended-finance-work-for-the-sustainable-development-goals-9789264288768-en.htm>. UN Department of Economic and Social Affairs, “Effective blended finance in the era of COVID-19 recovery”, at : <https://www.un.org/development/desa/dpad/publication/> / <https://www.un.org/development/desa/dpad/publication/un-desapolicy-brief-100-effective-blended-finance-in-the-era-of-covid-19-recovery/>. Specific blended finance’s references (regarding circular economy) in Circular STEP - Accelerating the Transition Towards a Circular Economy in the UNECE Region: Mobilizing Financing, at : [https://unece.org/sites/default/files/2023-04/CIRCULAR-STEP%20Mobilizing%20Financing-%204.28.2023\\_0.pdf](https://unece.org/sites/default/files/2023-04/CIRCULAR-STEP%20Mobilizing%20Financing-%204.28.2023_0.pdf).

DRAFT