EXECUTIVE SUMMARY

This Peer Review and Capacity Building report supports and promotes initiatives by APEC member economies in advancing cross-sectoral issues related to Physical Connectivity, with a focus on Peru. The objectives of this process are as follows:

- To conduct a peer review of policies and practices, including relevant laws, regulations, and guidelines related to the planning, selection, and implementation processes of infrastructure projects.

- To address the capacity-building needs of the reviewed economy through peer review and provide capacity-building activities.

- To deepen knowledge through information sharing among member economies.

Legal System, Governance and Mechanism of Finance Infrastructure in Peru

Peru's economic framework primarily aims to safeguard private investment and maintain open markets. The 1993 Constitution establishes a social market economy where private initiative is dominant, and both domestic and foreign investors are equally supported. These principles have contributed to making Peru among the most appealing regions for investors, with minimal government intervention and strong protections for economic freedom, property rights, and competition.

Private sector engagement in infrastructure has grown through various mechanisms introduced during Peru's market reforms. Since the 1990s, efforts such as privatizations, concessions, PPPs, Asset-Based Projects, Works for Taxes, and G2G schemes have shifted the model from government-led to mixed. These measures coincided with structural reforms that stabilized the economy, decreased government control, and established a base for sustained private involvement in infrastructure and public services.

PPPs and public works are evaluated under different frameworks due to their distinct goals. Public works emphasize identifying issues, service gaps, and budget viability, while PPPs focus on value for money, risk management, and lifecycle performance. Peru's institutional setup has evolved to support these processes, especially through consolidating investment roles in PROINVERSION and achieving regulatory milestones that enhance governance, transparency, and policy consistency.

Recent reforms have enhanced the PPP system, although regulatory transitions have caused delays in project development. Law No. 32441 (2025) strengthened MEF's leadership, expanded PROINVERSION's authority, improved rules for addenda and contract balance, and simplified land acquisition. However, changes between frameworks—such as moving from DL 1012 (2008) to DL 1224 (2015)—, among other reasons, such as the Lava Jato and

Construction Club corruption scandals in the construction industry, and increased political unrest, created uncertainty and slowed award processes, despite over USD 27.5 billion in PPPs awarded since 2007. Overall, PPP regulation development reflects Peru's ongoing efforts to improve investor certainty, institutional coordination, and private participation mechanisms.

PPPs are a broad, flexible tool that allows private involvement across nearly all infrastructure and service sectors. Legislation Decree 1362 enables long-term private engagement in transport, energy, telecommunications, sanitation, health, education, applied research, and innovation. PPPs can stem from public or private initiatives and be either self-financed or co-financed, showcasing their adaptability and alignment with Peru's infrastructure needs. This flexibility makes PPPs vital for mobilizing private capital and expertise.

The PPP process is structured to ensure thorough evaluation, risk sharing, and effective contract development during each project phase. Its five stages—planning, formulation, structuring, transaction, and execution—each have clear goals and approval criteria. This phased approach helps verify technical, economic, and financial feasibility before procurement, ensuring eligibility and proper risk allocation. Such organized preparation enhances project quality and reduces implementation challenges.

Institutional responsibilities in PPP development are designated to enhance coordination, fiscal discipline, and transparency. Project owners and PROINVERSION lead the initial formulation and structuring stages, with the Ministry of Economy and Finance, regulatory agencies, and the Comptroller offering essential opinions and oversight. During implementation, MEF guidelines establish standards for design, construction, operation, guarantees, payments, dispute resolution, and risk management. This multisectoral framework aims to maintain investor confidence and ensure consistent contract performance, thereby reducing uncertainty throughout the project lifecycle.

Works for Taxes (WfT) facilitates PPPs by enabling faster, smaller, and socially oriented investments through projects financed by tax credits. Under Law 29230, companies can prepay income taxes by financing key public investments for governments and public entities, and later recoup these through tax credit certificates. While WfT has mobilized USD 3.4 billion across 639 projects benefiting over 22 million people, investment levels have sharply declined since 2018. Its emphasis on sectors such as education, transport, health, sanitation, and security underscores its potential to bridge social and local infrastructure gaps. Nonetheless, expanding its impact hinges on strengthening institutional capacity, improving outreach, and resolving administrative hurdles.

Transportation Sector

1. Overview of the Sector

Transport infrastructure shows significant differences in coverage and performance across modes, with PPPs driving most of the progress in the past twenty years. Roads dominate the network, and while national roads make up only 15.7% of the total length, they carry most of the paved network and have expanded considerably since 2001 due to concessions. Railroads remain limited and have even declined compared to sixty years ago, with only two urban rail lines in operation. Ports demonstrate strong PPP-driven results, with 99% of cargo moved

through concessioned terminals, while airports follow a similar trend, with most major airports under PPPs and a third group of regional airports being prepared for 2026. Waterways are underdeveloped, with failed PPP attempts due to unresolved environmental and social issues.

2. Institutional Responsibility

Complex and fragmented approval processes hinder timely project preparation despite clear sector roles across MTC, APN, PROINVERSION, OSITRAN, and CGR. The Ministry of Transport and Communications identifies and prepares projects, while APN leads port concessions and PROINVERSION structures and procures them. However, multiple mandatory opinions—from MEF, OSITRAN, and CGR—often cause bottlenecks, with institutions issuing observations outside their mandate. Evidence shows that over 80% of CGR's comments and more than 70% of OSITRAN's comments concern technical or contractual issues beyond their legal scope, contributing to delays and reducing predictability.

3. Investment Needs

Transport exhibits the largest infrastructure gap in Peru, requiring sustained long-term investments far beyond current planning efforts. According to PNIC estimates, the sector faces a short-term deficit of USD 10.9 billion and a long-term deficit of USD 48.8 billion, accounting for more than 30% and 44% of the total gap respectively. Roads comprise nearly two-thirds of this deficit, followed by railroads. While PNIC initially prioritized high-impact transport PPPs (82% of total investment), the later PNISC reduced the sector's share, excluded key projects, and shifted focus toward public works—changes that introduced uncertainty, weakened predictability, and conflicted with evidence showing better PPP performance compared to traditional public investments.

4. PPP and WfT

PPP investment has concentrated on large-scale road and rail projects, while WfT has supported many smaller local transport initiatives. The transport sector has 35 PPP contracts totaling at least USD 16.4 billion, with roads and railroads making up nearly three-quarters of the planned investment. The recent Anillo Vial Periférico alone accounts for over 20% of all transport PPP investment. Conversely, the WfT mechanism completed 186 transport projects between 2019 and mid-2025, totaling USD 850 million—many of which were initiated by local governments for urban roadworks. Although widely used, WfT represents a smaller share of investment and contract value compared to PPPs, serving as a complementary yet more localized mechanism.

5. Project Performance

Transport PPPs attract interest and competition, but long preparation times and frequent contract addendums remain key challenges. Projects have averaged 5.3 pre-qualified firms and 2.6 bidders, with some reaching up to 10 bidders, indicating healthy competition. However, transport PPPs take an average of 22.5 months from call to award—twice the national PPP average—with airports experiencing the longest delays. Contract management also shows significant renegotiation: transport accounts for 85% of all PPP addendums, averaging 3.7 per

contract, particularly high in airports. While this reflects project complexity and long-term planning, it also signals persistent issues in initial design, risk allocation, and institutional coordination.

Sanitation Sector

1. Overview of the Sector

Sanitation access has steadily improved, but deep and persistent urban–rural inequalities still limit sector outcomes. Unsafe excreta disposal has decreased nationwide—from 27.9% in 2015 to 20.1% in 2024—but rural areas still record levels above 55%, much higher than the 11–12% seen in urban areas. Non-sewered disposal methods show similar trends: although rural dependence on basic systems has fallen significantly, it remains close to 60%, highlighting structural gaps in infrastructure and service quality.

Service provision is highly fragmented, as many small utilities lack the capacity for proper wastewater treatment. Fifty EPS serve urban areas under SUNASS regulation, while over 25,000 JASS operate in rural regions, resulting in wide variability in performance. Wastewater treatment coverage varies significantly: SEDAPAL and large EPS exceed 95%, but medium and especially small EPS lag behind, with many lacking treatment facilities or running with non-operational infrastructure, creating notable environmental and health concerns.

Low tariff levels and weak societal valuation of sanitation undermine financial sustainability and investment capacity. Households spend much less on water and sanitation than on other utilities like electricity or gas, despite rising service demands. This underpricing weakens the financial foundation of utilities, limits capital investments, and worsens service disparities, especially in poorer regions.

2. Institutional Responsibility

Sector governance is clearly established institutionally, but regulatory tools and coordination mechanisms are still inadequate to close ongoing service gaps. The MVCS oversees water and sanitation policy and planning, while SUNASS is responsible for regulating service providers. Nonetheless, SUNASS's tools often do not match sector realities, particularly in areas with low cost recovery and financial instability. Nearly 40% of EPS operate under the Transitional Support Regime, with OTASS taking control to stabilize their operations.

Cross-government regulatory and fiscal oversight creates a complex environment that requires stronger alignment to ensure effective sector performance. The MEF and the PCM jointly oversee regulatory quality and performance-based budgeting, influencing the financial and operational frameworks of all agencies. PROINVERSION promotes private investment and integrates SUNASS's technical input into PPP contractual design, but overall reform efforts remain challenged by institutional fragmentation and slow decision-making processes.

3. Investment Needs

The sanitation sector experiences a significant and ongoing investment shortfall that surpasses recent funding levels. Annually, the needed funds amount to USD 2.82 billion, exceeding current spending by over USD 169 million. Over the period from 2023 to 2037, nearly USD 9 billion will be necessary. This shortfall is due to costs associated with expanding sewerage infrastructure, enhancing wastewater treatment, upgrading rural sanitation systems, and boosting operational capacity across EPS and JASS.

Planned PPP investments are a vital part of the necessary expansion, particularly in wastewater treatment. The sector's pipeline comprises 21 PPP projects through 2030, amounting to nearly USD 2.7 billion, with the majority of spending anticipated after 2025. Fifteen WWTPs are prioritized, eight of which will feature energy cogeneration, highlighting the emphasis on environmentally sustainable infrastructure.

4. PPP and WfT

PPP participation in sanitation has been limited but strategically targeted at high-impact wastewater treatment plants. From 2002 to 2024, six PPP projects totaled USD 925 million, equally divided between greenfield and brownfield projects. Private sector initiatives lead the investment share, highlighting their key role in advancing project development.

Works for Taxes (WfT) has facilitated geographically targeted investments but remains limited compared to sector demands and is predominantly driven by the government. Between 2009 and 2024, 71 WfT sanitation projects were carried out, amounting to USD 377 million, with 95% initiated by public entities, mainly local governments. Investment tends to focus on regions like La Libertad, Cusco, and Cajamarca, while several Amazonian regions have no awarded projects, underscoring uneven distribution across territories.

5. Project Performance

PPP projects in sanitation generally attract strong market interest and tend to progress quickly through key contractual milestones. These projects, on average, received five prequalified bidders and three bids, surpassing the average across other sectors. Contract signing occurred somewhat faster than typical PPP timelines, reflecting positive investor sentiment and manageable structuring complexity.

However, overall sector execution remains inconsistent, with many projects stalled due to various complex challenges. Only a few, such as the Huarmey project, demonstrate significant physical and financial progress. Others remain at 0% completion because of delays in studies, land acquisition, financial closure, and social acceptance. The most common and severe delays stem from legal and social obstacles, followed by technical, institutional, environmental, and economic issues.

These combined hurdles cause lengthy delays in implementation, hampering the expansion of sanitation coverage and hindering progress toward environmental sustainability. Delays range from two months to over six years, impacting flagship projects like the Lake Titicaca Basin

system and Lima's Headworks. Overcoming legal barriers, enhancing project preparation, and strengthening community engagement are critical to speeding up progress.

Health Sector

Overview of the Sector

The health system is experiencing a significant crisis in infrastructure and capacity, which compromises the quality and accessibility of services across the economy. Almost all primary care facilities, hospitals, and specialized institutes operate with limited capacity, and the use of electronic medical records remains very low. High out-of-pocket costs, long queues, and delays in care lead to worse disease outcomes, productivity losses, and reduced patient well-being—highlighting a system unable to fully meet the population's needs.

Even with widespread insurance coverage, issues such as fragmented service use and heavy dependence on pharmacies point to structural weaknesses. While SIS covers most insured individuals, its lack of risk pooling through premiums hampers financial sustainability. Additionally, 46% of Peruvians seek care at pharmacies, and household expenditure data show increasing financial vulnerability and insufficient investment in formal healthcare, exposing gaps in access and trust within the public system.

2. Institutional Responsibility

A complex institutional framework hampers effective coordination and exposes regulatory gaps, especially in PPP oversight. MINSA directs policy and manages facilities in Lima, while regional governments oversee local networks, and the National Superintendence of Health protects user rights. However, PPPs lack an independent regulator—PRONIS acts as both promoter and regulator, despite limited technical capacity—creating risks for future concessions.

Fragmented financing and governance weaken accountability and hinder system performance improvements. Although SIS, ESSALUD, private providers, and military systems operate concurrently, their responsibilities and funding structures are mismatched. SUNASS, with authority to regulate, set tariffs, and enforce sanctions, faces limitations in addressing systemic operational issues across utilities. OTASS intervenes via the Transitional Support Regime, but ongoing financial and managerial problems persist.

3. Investment Needs

The health sector faces a funding shortfall of over USD 16 billion, a result of decades of underinvestment in infrastructure and equipment. Data from MINSA and independent research confirm that the system lacks sufficient physical resources at all care levels. While international benchmarks highlight the need for advanced infrastructure, the existing gap underscores basic deficiencies in primary care, hospitals, and prevention services.

Metrics available tend to underestimate actual needs because key factors—such as the demand for prevention-oriented infrastructure—are not fully included. Indicators like beds per capita do not account for the full range of system requirements, including primary care posts,

diagnostic equipment, and the costs related to major public health challenges. Consequently, the true investment needed is probably much higher than current estimates.

4. PPP and WfT

PPP models in health have gradually expanded, showcasing the potential for private sector involvement in non-clinical, support, and even clinical services. Peru has adopted various PPP types, including 'gray coat," "green coat," "white coat," and specialized PPPs, covering a range of services from logistics and diagnostics to full hospital management. A total of eight major PPPs have been awarded, spanning areas such as medicine storage and hospital complexes, indicating viable avenues for private sector participation.

Recent and upcoming PPP projects reflect increased interest and strategic importance, though operational consistency varies. Notable projects include the National Institute of Children's Health, Torre Trecca, the Kaelin and Barton hospital complexes, and new specialized hospitals in Piura, Chimbote, and Villa El Salvador, demonstrating diverse PPP applications. PROINVERSION's pipeline features six additional projects valued at over USD 860 million and three large hospital initiatives in Loreto backed by USD 514 million—highlighting a strengthened role for PPPs in future health system expansion.

The Works for Taxes (WfT) program has generated USD 600 million across 24 projects, mainly for hospital upgrades and equipment. However, its scale remains limited compared to sector needs. Concentrated in regions like Ancash, La Libertad, and Cusco, WfT has enabled priority investments but cannot replace large-scale infrastructure development due to its smaller scope and reliance on public-sector project initiation.

5. Project Performance

Existing PPPs in the health sector show strong operational results, increased efficiency, and tangible benefits for patients. The San Borja Children's Institute reached full operational capacity in three years instead of five, lowered costs, and attained high standards through ISO certifications. These benefits include quicker repairs, lower corruption risk, improved human resource management, and higher diagnostic output.

Hospital PPPs like Kaelin and Barton demonstrate notable gains in access, service quality, and system efficiency. Evidence indicates over 40% reductions in patient demand at nearby public facilities, significant decreases in wait times, and better delivery of medicines and surgeries. High user satisfaction and international accreditation further validate the value of PPP-operated facilities.

These findings show that well-structured PPPs can boost capacity, quality, and system performance when backed by robust management and clear contractual agreements. Faster construction, improved operational efficiency, and reliable service metrics make PPPs a practical solution to the sector's infrastructure challenges, as long as regulatory and institutional gaps are addressed.

Defining Infrastructure Quality

1. Reviewing PPP Regulations

Peru's PPP framework clearly outlines institutional roles and offers robust legal tools, but its complexity leads to coordination and implementation difficulties. The National System for the Promotion of Private Investment (SNPIP) includes MEF, PROINVERSION, project-owning agencies, and oversight organizations. Although this setup provides clarity and authority, overlapping responsibilities and varying technical capacity—particularly at subnational levels—still cause delays in consistent and timely project development.

Regulatory stability tools enhance investor confidence, but their advantages are uneven and often underutilized. Legal and tax stability agreements, IGV refund regimes (RERA-IGV and RRT-IGV), and guarantees for currency convertibility foster long-term predictability. Nonetheless, their complexity and eligibility requirements restrict access for many regional governments and medium-scale projects, limiting their ability to boost private sector participation.

Fiscal transparency regarding PPP liabilities has improved, but contingent risks remain significant and need better disclosure and management. Peru's accounting system records co-financing, guarantees, and contingent liabilities according to MEF guidelines, but judicial disputes, international arbitration, and delayed land delivery still raise fiscal exposure. While total net commitments stay below legal limits, increasing claims highlight the need for more systematic risk assessment and mitigation.

Environmental and social regulations are well established, but their integration into early project stages remains inconsistent. Frameworks for climate change, biodiversity conservation, and environmental certification exist, yet feasibility studies often unevenly incorporate sustainability aspects. As a result, climate resilience, community impacts, and environmental costs are not systematically integrated into project planning.

Procurement processes prioritize transparency and competition, but technical evaluation and innovative solutions are limited. Peru's two-stage system (technical pass/fail and economic evaluation) ensures simplicity and fairness, but it reduces incentives for high-quality or innovative technical proposals. Excessive input specifications and weak use of competitive dialogue restrict private-sector creativity, while delays in expropriation remain a major cause of renegotiations.

2. Elements that Ensure Quality of Infrastructure

Infrastructure quality improves through alignment with national development plans; however, gaps remain in translating strategic objectives into coherent project pipelines. The PNCP, PNIC, and PNISC base infrastructure development on long-term goals, and multiannual planning promotes cross-sector consistency. Still, differences between the PNISC and the PPP pipeline—along with outdated or unprioritized projects—dilute strategic coherence.

Long-term stability and resilience are core goals, but operational practices often fall short of international standards. While PPPs offer contractual stability and risk management, high staff turnover in public agencies and limited understanding of PPP-specific management hinder

project continuity. Disaster risk management and climate adaptation requirements are advancing but vary in design and implementation.

Economic and financial robustness are generally sound, yet lifecycle costing and environmental integration are lacking. PPP projects typically include investment, O&M, and contingency estimates, mobilize diverse financing sources, and apply VfM principles. However, externalities related to the environment and social aspects are not quantitatively incorporated into lifecycle costs, diminishing the accuracy of cost-effectiveness assessments.

Sustainability efforts are progressing, but community engagement and long-term monitoring remain weak. PROINVERSION manages environmental compliance and integrates socio-environmental obligations into contracts, but post-construction monitoring is limited, and community impacts are rarely tracked. Standards for social inclusion, gender, and affordability are still underdeveloped across sectors.

Benefits for local development heavily depend on contract design, underscoring the need for stronger mechanisms to foster inclusive growth. Some PPPs include clauses on local employment and training, but social tariffs, cross-subsidies, and broader community benefits are inconsistently applied. Greater ongoing dialogue with local communities is necessary to enhance legitimacy and support.

3. Need for Capacity Building

Institutional capacity gaps across all PPP stages hinder project quality and must be systematically addressed. Regional and local governments often lack the technical skills to prepare projects, conduct feasibility studies, assess risks, and manage contracts—causing delays, subpar designs, and weaker performance. Building human capacity is crucial to reduce reliance on external consultants and strengthen project ownership.

Specialized skills in climate resilience, environmental assessment, and lifecycle costing are increasingly important but still rare. As infrastructure becomes more vulnerable to climate risks, public entities need deeper expertise in environmental management, risk modeling, and sustainable design. Current practices often include these elements only superficially, limiting long-term project resilience.

Enhanced procurement and contract management skills are needed to meet international standards. Improving technical evaluation methods, using competitive dialogue when suitable, and better managing expropriations would lower renegotiation rates and improve project performance. Strengthening PPP contract oversight by increasing financial monitoring and balancing incentives is also essential.

Expanding data-driven evaluation and evidence-based policymaking should foster ongoing improvement. While PROINVERSION's data analysis and impact evaluation unit is a regional leader, its insights are not consistently used to enhance regulations or inform future projects. Requiring ex-post evaluations would promote learning and boost quality throughout the system.

Comprehensive capacity-building programs are essential for Peru to unlock the full potential of PPPs in delivering high-quality, resilient, and inclusive infrastructure. Focused training,

standardized guidelines, professional certification, and institutional strengthening—especially at decentralized levels—would enhance project preparation, accelerate implementation, and lead to better long-term outcomes.