NEPALESE ASSOCIATION OF PPP
PROFESSIONALS AND PRACTITIONERS
Fostering Partnerships

# PPP PARADIGMS

Shaping Sustainable, Resilient and Inclusive Development

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**Prime Minister**

**Kathmandu, Nepal**

## Message

It is great to learn that the Nepalese Association of P.P.P. Professionals and Practitioners (NAPPP) is launching its first magazine, **PPP Paradigms**. I believe this publication will serve as a valuable resource material not only for professionals and practitioners but also for anyone interested in learning about and contributing to the field of public-private partnerships (PPP).

The magazine's theme, **PPP: Shaping Sustainable, Resilient and Inclusive Development**, underscores the critical role of PPP in driving rapid economic growth. While Nepal has been a pioneer in implementing energy projects under PPP, there is significant potential to expand its application across other sectors. PPP is not merely about investment; it encompasses technology, innovation, business processes, systems, and management expertise from both foreign and domestic private sectors, all of which strengthen collaboration with the public sector.

Such initiatives align with our national aspiration of **Prosperous Nepal, Happy Nepali**, as they foster rapid economic development through robust public-private partnerships. I am delighted to see NAPPP steadily expanding its activities in policy advocacy and beyond, promoting and shaping a culture of PPP—a positive step in today's globalized world.

The Government of Nepal is committed to improving the living standards of its citizens and creating abundant opportunities by fostering a favorable investment climate. Strengthening the partnership between the public and private sectors is central to this vision. In this regard, NAPPP can play a pivotal role as a true advocate of PPP, fostering cooperation and collaboration between the two sectors. The government is open to providing all possible incentives to private sector entities whose efforts contribute to the economic upliftment of the people. It is also crucial to emphasize evidence-based and need-driven formulation of convenient investment policies, programmes as well as credible and bankable projects to leverage the PPP to its fullest potential. Significant investments have already been made by the government and private sector in infrastructure and capacity development across key sectors such as health, education, tourism, technology, energy, agriculture, and construction though this is grossly insufficient to achieve the desired development goals.

I commend NAPPP, a pioneering organization in the field of public-private partnerships (PPP), for its diligent efforts in disseminating PPP knowledge and best practices, fostering awareness, and advocating for a more enabling PPP environment in Nepal. These efforts are vital to accelerating infrastructure development and enhancing service delivery through productive partnerships between the public and private sectors. I am confident that NAPPP will continue to promote research, development, knowledge sharing, and networking in the years to come.

I hereby extend my congratulations to the Nepalese Association of P.P.P Professionals and Practitioners and wish the association continued success and growth as a vibrant and valuable institution in Nepal.

**22 Jun, 2025**

**K P Sharma Oli**

Government of Nepal
# MINISTRY OF FINANCE

SINGHADURBAR
KATHMANDU, NEPAL

Hon. Bishnu Prasad Paudel
Deputy Prime Minister and Finance Minister

## Message

I am delighted to learn that Nepalese Association of Public-Private Partnerships Professionals and Practitioners (NAPPP) is publishing **PPP Paradigms magazine.** I hope that this publication will offer valuable insights into development and foster dialogue among government agencies, development partners, experts and the private sector on the matter of PPP. This publication will also contribute to the ongoing effort to institutionalize PPPs as a core mechanism of national development.

Nepal's development trajectory demands not only sound fiscal planning but also a strong innovative partnership with the private sector. These partnerships can scale up and strengthen our infrastructure delivery and efficiency. In this context, the initiation NAPPP is commendable for promoting active private sector participation and investment including FDI in national development. As a not-for-profit platform advocating for PPPs, NAPPP helps bridge the gap between public policy, private investment, and project implementation.

As highlighted in my interview within this publication, private capital plays an indispensable role in complementing public efforts and increasing productive investment, which is key to sustaining economic growth. While increasing capital expenditure remains a priority in the national budget, the scale of Nepal's infrastructure need calls for broader participation and deeper collaboration with the private sector. Nepal's encouraging experience with PPPs in energy, combined with successful PPPs implementation in other countries, urges us to explore and utilize the PPP model in transport and other sectors for efficient service delivery through well-structured PPPs.

The Government of Nepal is committed to enhancing the PPP ecosystem by strengthening legal frameworks, ensuring transparency, and developing a pipeline of bankable projects. Beyond traditional infrastructure procurement, we are promoting PPPs in brownfield assets, clean energy exports, logistics, and digital infrastructure—areas where private innovation and financing can accelerate efficient infrastructure delivery.

I commend NAPPP's ongoing collaboration with global networks like WAPPP and its role in supporting policy, capacity-building, and stakeholder engagement. The government looks forward to continued partnership as we work to enhance a resilient and investment-friendly environment in Nepal.

Finally,I extend my best wishes to NAPPP and the entire editorial team.

BPaudel

Bishnu Prasad Paudel
Deputy Prime Minister and Finance Minister

June, 2025

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**Hon'ble Dipak Khadka**
**Minister**
Ministry of Energy, Water Resources & Irrigation

Government of Nepal
# Ministry of Energy, Water Resources & Irrigation

Singhdurbar, Kathmandu, Nepal
www.moewri.gov.np

Letter No. 2081/082
Ref. No. 347


**Congratulatory Message**

It is a pleasure to convey my warm greetings to the readers of *PPP Paradigms*, the annual publication of the Nepalese Association of PPP Professionals and Practitioners (NAPPP). This platform plays an important role in advancing knowledge, fostering policy dialogue, and strengthening collaboration in infrastructure and energy—particularly through the Public–Private Partnership (PPP) model.

Nepal is at a defining juncture in its energy development. As of early 2025, our installed electricity generation capacity exceeds 3,600 MW, over 90% of which is derived from clean, renewable hydropower. Guided by our national roadmap, we aim to achieve 28.5 GW of installed capacity by 2035—13.5 GW for domestic consumption and 15 GW for regional export. This vision necessitates a robust PPP ecosystem and strong public–private synergy.

The contribution of PPPs is evident in transformative projects such as Arun-III, Upper Tamakoshi, and emerging solar and wind initiatives. PPPs have enabled effective project structuring, mobilization of private investment, and timely delivery of complex infrastructures.

Our growing regional energy trade—with India and Bangladesh—underscores the importance of cross-border cooperation and energy diplomacy, facilitated by sound PPP frameworks, investor confidence, and institutional leadership.

The Ministry remains committed to further strengthening the PPP environment—through legal and regulatory reform, improved bankability, and enhanced governance. We value NAPPP's contribution in this effort—as a catalyst for capacity building, stakeholder engagement, and knowledge exchange.

I congratulate the NAPPP team and all contributors to this publication. May *PPP Paradigms* continue to serve as a beacon for innovation, inspire dialogue, build momentum, and progress towards a sustainable, green, and resilient energy future for Nepal.

Dipak Khadka

Minister

Ministry of Energy, Water Resources and Irrigation

Hon. Dipak Khadka
Minister
Ministry of Energy, Water Resources and Irrigation

# MESSAGE

In today's rapidly evolving economic, technological, and public finances landscape, the convergence of public and private resources has emerged as a cornerstone for sustainable development. Public-Private Partnerships no longer represent merely a financing mechanism, but a philosophy of collaborative governance that transcends traditional boundaries.

The establishment of the Nepalese Association of PPP Professionals and Practitioners (NAPPP) marks a significant milestone in the nation's journey toward service delivery enhancement through infrastructure building and modernization. As emerging economies worldwide embrace PPP frameworks to address critical infrastructure gaps, Nepal's strategic positioning within this global movement is both timely and necessary.

Platforms dedicated to PPP advocacy serve as crucial nexus points where policy, practice, and innovation intersect. They provide the essential space for knowledge exchange, capacity building, and the cultivation of best practices that can be adapted to local contexts while remaining aligned with global standards.

Nepal stands at a promising juncture where its unique development challenges can be addressed through thoughtfully structured partnerships. By aligning its PPP efforts with evolving global trends, while simultaneously honoring its distinctive socio-economic context, Nepal can forge a path that resonates with international best practices yet remains authentically tailored to national priorities.

As we collectively navigate the complexities of public-private collaboration, it is the exchange of ideas, the challenging of assumptions, and the reimagining of possibilities that will ultimately shape robust frameworks for the future. Indeed, the role of thought leadership in the journey of national development cannot be overstated and we wish NAPPP and Nepal much success in it.

**Ziad-Alexandre Hayek**
President
World Association of PPP Units & Professionals (WAPPP)

## PATRON'S MESSAGE

It gives me great pleasure to extend my warm congratulations to the Nepalese Association of PPP Professionals and Practitioners (NAPPP) on the launch of the inaugural edition of **PPP Paradigms**. This flagship publication arrives at a critical juncture—where the call for sustainable, resilient, and inclusive development must be answered not just with intent, but with innovation in PPP that deliver real impact in transforming infrastructure and service landscape of Nepal in terms of efficiency in delivery and cost.

Over the past decade, Nepal's hydropower sector has demonstrated what's possible when trust and confidence underpin partnerships. Projects once considered too complex and capital-intensive are attracting more and more foreign as well as Nepalese Investors—thanks to a productive collaboration between government and the private sector. At the same time, it has been developing confidence of Hydropower professionals, private enterprises and BFIs in Nepal. The government played a catalytical role by enabling policy frameworks and opening space for investment, while the private sector responded with commitment, capability, and capital. This is the true promise of PPPs: more than building infrastructure, they build national capacity, unlock domestic resources, and redefine our development ambitions.

The theme of this edition, **Shaping Sustainable, Resilient and Inclusive Development**, reflects not just an aspiration but a lived reality. PPPs have already proven their worth in enhancing connectivity, generating jobs, and advancing economic self-reliance. I commend NAPPP for creating a platform to carry this momentum forward. I hope PPP Paradigms continues to challenge inertia, inspire replication, and position PPPs as a cornerstone in Nepal's next development leap.

Let us move forward—confidently, collaboratively, and courageously.

**Sushil Bhatta**
Patron, Nepalese Association of PPP Professionals and Practitioners (NAPPP)
Former Member, National Planning Commission
Former CEO, Investment Board, Nepal

## CHAIRPERSON'S MESSAGE

It is my great pleasure to present our Annual Magazine, PPP Paradigms with its inaugural edition Shaping Sustainable, Resilient and Inclusive Development. This work is a timely and in-depth examination of the evolving dynamics of PPP in World, an area increasingly recognized as a cornerstone for driving sustainable economic growth, attracting investment, and enhancing efficiency in public service delivery.

Nepal has a long and proud history of embracing Public-Private Partnerships. From ancient cooperative practices and community collaborative efforts in constructing infrastructure such as Rajkulos (royal canals) and tracks, our history reflects a deeply rooted culture of collaboration and cooperation. Projects like the Puwakhulo Hydropower Project (6.2 MW), executed under a 60:40 investment ratio between the Government of Nepal and the Nepal Electricity Authority (NEA), exemplify Nepal's pioneering approach to collaborative infrastructure development. PPP was officially initiated with Nepal's Eighth Five-Year Plan, marking a significant shift in development strategy by encouraging FDI. Following liberalisation policy and the Electricity Act, 1992, PPP practices gained traction in the electricity sector with implementation of Khimti and Bhotekoshi HEP with FDI and Chilime with domestic investments.

Since then, successive national development plans—from the Ninth to the Sixteenth—have progressively emphasized PPP, particularly in energy, transportation, and urban infrastructure. Frameworks like BOT (Build-Operate-Transfer), BOOT (Build-Own-Operate-Transfer), and BTO (Build-Transfer-Operate) were introduced, alongside institutional framework by establishing Investment Board Nepal and enactment of Investment Board Act, 2011 replaced by PPPIA, 2019.

PPP Paradigms not only outlines that there is strong potential for PPPs in sectors including Energy Sector, Urban development, Transportation, Waste management, Education, Agriculture, ICT, and Industrial zones but also provides with good practices from around the globe. The publication offers pragmatic and strategic ideas and perspectives on strengthening the legal framework, defining clear roles, responsibilities and accountability, risk sharing mechanism, and institutionalizing support mechanisms. It also emphasizes the importance of enhanced transparency, and greater trust between stakeholders.

On behalf of the NAPPP, I extend my deepest appreciation to all the authors and publication team for their contribution in making this publication possible. I invite or esteemed readers to delve into PPP insights expressed in this issue, to gain perspective and inspiration, and to recognize the vital role PPP will play in building a Prosperous Nepal.

Through genuine collaboration for leveraging PPP, we can deliver high-impact projects that serve both public interest and economic sustainability.

**Anup Kumar Upadhyay**
Chairperson
Nepalese Association of PPP Professionals and Practitioners (NAPPP)

# EDITORIAL

We are thrilled to present the first and this year's edition of our Annual Magazine, PPP Paradigms with a theme Shaping Sustainable, Resilient, and Inclusive Development. This theme embodies NAPPP's commitment for advocating and creating awareness building highlighting the evolving role of Public-Private Partnerships (PPPs) in addressing some of Nepal's most pressing developmental challenges. The theme of this edition reflects our vision to reimagine PPPs as more than just financial arrangements from private sector for infrastructure ventures; rather, to see it as paradigms of partnership and collaboration between Public and Private sector for resilience & sustainability in infrastructure and service sector delivery to the public. In Nepal's journey toward inclusive and enduring growth, PPPs offer a transformative approach to infrastructure, energy, technology, urban and service sector development. PPP projects not only close critical gaps in resources and technology management expertise but also bring about lasting, equitable progress across our communities.

In this issue, we delve into global perspectives and local case studies that shed light on PPPs' immense potential. Accordingly, we are privileged to include critical thoughts, experience and in-depth knowledge in the form of articles, interviews, and opinion piece from professionals and practitioners from Nepal and other part of world. Each article and opinion piece along with inspiring thoughts shared in interviews reaffirms our dedication to fostering public private partnerships that prioritize sustainability, mitigate risks, and build resilience in our systems. Our contributors, including policy makers, thought leaders and sectoral experts, bring a wealth of insights into how Nepal can harness PPPs for accelerating economic development and thereby creating a brighter and more equitable future. We extend our sincere gratitude to all our esteemed contributors for generously sharing their expertise and perspectives. Their valued participation has enriched this publication and strengthened our collective pursuit of inclusive and impactful PPP discourse.

We hope this edition serves as a guide and an inspiration for stakeholders, providing a comprehensive view of how PPPs can shape Nepal that is better equipped to meet the challenges of tomorrow. With shared vision, uniformity in understanding and collective action, PPPs hold the key to transforming development in ways that fulfil our development aspirations and uplift all.

Warm regards,

**Jayandra Shrestha**
*Editor-in-Chief*


**PPP PARADIGMS**

**Publisher**

NEPALESE ASSOCIATION OF PPP PROFESSIONALS AND PRACTITIONERS
Fostering Partnerships





All editorial enquiries should be sent to info@pppnepal.com

The Nepalese Association of PPP Professionals and Practitioners (NAPPP) was established on July 24, 2023, as a not for profit organization committed to promoting sustainable development through Public-Private Partnerships (PPPs). Formed under Nepal's Company Act 2063, NAPPP brings together a community of PPP experts and stakeholders with the shared goal of advocacy and stakeholder awareness for bridging the infrastructure and services gap across the country. Guided by a vision to make Nepal a hub for innovative investments and collaborations, NAPPP focuses on capacity-building, policy advocacy, knowledge accumulation and dissemination, and advancing regional cooperation in PPPs.

Aligned with this vision and its core objective to foster informed discourse and strategic advancement in PPPs, NAPPP is proud to launch its flagship annual publication—**PPP Paradigms**. This magazine serves as a vital platform for thought leadership, policy dialogue, and the exchange of empirical experiences in the design, development, and implementation of PPPs. It seeks to amplify evidence-based perspectives and global insights tailored to Nepal's development context and to the broader Asia-Pacific region.

This inaugural edition, themed "**Shaping Sustainable, Resilient, and Inclusive Development**," reflects our ambition to reposition PPPs beyond traditional infrastructure procurement and reimagine them as instruments for sustainable transformation and efficiency. The publication features in-depth articles, case studies, opinions, and structured interviews that showcase how PPPs can contribute meaningfully to economic growth, social equity, and environmental stewardship.

We begin by sincerely thanking the Rt. Hon'ble Prime Minister, Shri KP Sharma Oli, for his visionary message, and to the Hon. Deputy Prime Minister and Finance Minister, Shri Bishnu Prasad Poudel, for his encouraging message and strong endorsement. We are equally honoured by the contribution of the Hon. Minister for Energy, whose perspective reinforces the critical role of PPPs in Nepal's hydropower and energy development journey.

Our special thanks also go to the World Association of PPP Units and Professionals (WAPPP) President for his congratulatory message to this publication.

We sincerely extend our heartfelt appreciation to all esteemed authors, interviewees, policymakers, practitioners, and sector experts who have contributed their time and knowledge to this edition. Your voices shape this magazine into a repository of ideas, experiences, and solutions. We also thank our partners, advertisers, and sponsors whose support has been instrumental in bringing this initiative to life.

With this edition, we collectively take a step forward toward cultivating a more dynamic, inclusive, and resilient PPP ecosystem in Nepal and beyond. PPP Paradigms is not just a publication—it is a **"3I"** movement to inform, inspire, and influence the future of development partnerships.

The journey has begun—let us lead it with vision, purpose, and fostering partnerships.

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# "For Investors, Every Single Day Delay is a Loss of Revenue ..."

**MR. RADHESH PANT,**
Founder and Chairman, VRock & Company

**Mr. Radhesh Pant, the founding CEO of the Investment Board Nepal (IBN) and Founder & Chairman of VRock & Company, brings over three decades of extensive experience in both public and private sectors. Beginning his career as a financial analyst for a biotechnology firm in Los Angeles and spending formative years in Japan, Mr. Pant's diverse background laid the foundation for his leadership roles.**

**At just 38, he became the CEO of a commercial bank, successfully steering the institution through significant political upheavals and financial crises. As the inaugural head of IBN, chaired by the Rt. Hon'ble Prime Minister of Nepal, he was instrumental in facilitating the signing of Project Development Agreements (PDAs) for two major energy projects with international developers, overcoming geopolitical challenges to attract substantial foreign investment.**

**With expertise spanning corporate finance, general management, policy advocacy, and strategic leadership, Mr. Pant is recognized for fostering innovation and empowering teams. Beyond his work at VRock & Company, he chairs several boards, including the Asia Network for Sustainable Agriculture and Bioresources (ANSAB) and Smile Nepal, and is a founding director of the South Asia Institute of Management (SAIM) in Kathmandu.**

**Mr. Pant holds an MBA from the University of California, Los Angeles (UCLA), and a Bachelor of Technology in Aeronautical Engineering from the Indian Institute of Technology (IIT) Mumbai. In this interview, he shares valuable insights on driving investment and managing Public-Private Partnerships (PPP) in Nepal's evolving economic landscape.**

**From your experience, how would you describe the current state of infrastructure development and investment in Nepal?**

For several decades, we have advocated for increased private investment in infrastructure through Public-Private Partnerships (PPP). Considerable progress has been made, including the enactment of supportive legislation and the establishment of institutions such as the Investment Board Nepal (IBN) to facilitate these efforts. However, despite these measures, we have struggled to attract high-quality investors and bring forward well-prepared, viable projects.

A critical challenge remains in building the capacity of both public and private sectors to effectively implement PPP projects. Further legal and institutional reforms are necessary to create a conducive environment for private investment, particularly Foreign Direct Investment (FDI).

It is important to remember that the fundamental purpose of PPP is to leverage the private sector's expertise and resources to enhance cost efficiency, effectiveness, and timely execution of infrastructure projects, thereby contributing meaningfully to the country's development. PPPs are true partnerships that require buy-in from a wide range of stakeholders—including local communities, political leaders, policymakers, private enterprises, and financial institutions. Unfortunately, this shared understanding is currently lacking.

The government's capacity to implement, market, and promote projects remains limited due to structural and institutional constraints. While a federal-level one-window delivery mechanism exists, its effectiveness is undermined by inadequate coordination among Nepal's three tiers of government—federal, provincial, and local. This fragmentation poses significant obstacles to streamlining investment facilitation.

In comparison, countries such as Myanmar and Bangladesh have taken proactive steps to attract investors and now enjoy substantially higher levels of investment. Bangladesh, for example, receives more than ten times the foreign investment that Nepal does, having recognized early on that investors have options and will choose destinations that offer efficiency and certainty.

Investors do not come to Nepal simply out of goodwill; every day of delay translates into lost revenue and increased project costs. Nepal must fundamentally transform its approach to doing business. This transformation requires not only government action but also raising awareness among the general public and stakeholders. Local communities must understand the benefits of PPP projects. Likewise, parliamentarians, civil society, media, and others must be informed advocates for infrastructure development through PPP.

We must avoid politicizing infrastructure initiatives, as such polarization results in zero-sum outcomes detrimental to national progress. Additionally, the judiciary must adopt a development-sensitive perspective that acknowledges the adverse impact of project delays on Nepal's economic growth. Only through collective understanding and concerted action can Nepal unlock the full potential of PPPs and accelerate its infrastructure development.

**What do you perceive as the most pressing resource or capacity gaps that PPPs can realistically help address?**

Coming from the private sector to serve as the Chief Executive Officer of the Investment Board Nepal (IBN) was a profoundly rewarding experience—the best five years of my career. I was genuinely excited to go to work each morning. The government provided necessary support, although challenges around coordination and assertiveness from various ministries occasionally arose. These issues are inevitable, but I had the opportunity to navigate them and advance projects steadily with a clear mission and focus.

During that period, IBN benefited from strong backing not only from the government but also from multilateral agencies, development partners, private sector stakeholders, and investors. This collective support coincided with Nepal's peace process and the drafting of the new constitution, which gave additional impetus to our work.

In the early days, we lacked sufficient in-house expertise, but the institution progressed smoothly thanks to the dedication of a talented team. Unfortunately, following the promulgation of the new constitution, political leadership gradually shifted its focus away from economic priorities. I firmly believe that investment must remain at the core of Nepal's national agenda, both now and in the future. Without substantial private investment, transforming the country's economic landscape will remain out of reach. Political leaders who are genuinely committed to development must prioritize economic progress above political rhetoric and blame games.

One of my strengths during my tenure was my independence and non-political stance. As a technocrat, I focused on applying my expertise in finance, banking, and management to make meaningful contributions. I understood that achieving progress requires broad political buy-in and cross-party support, rather than reliance solely on the ruling authority.

At that time, IBN was a young institution, and I am proud to have led it with the support of highly capable consultants and civil servants. Working with a dynamic, energetic team was one of the highlights of my career. We engaged regularly with journalists, politicians, civil society, and the private sector, always mindful of the importance of winning the hearts and minds of the people across Nepal.

As CEO, I dedicated approximately 40 percent of my time to stakeholder engagement, finding parliamentarians especially proactive and aligned with our mission. The remainder of my time was focused on facilitating projects and investors, along with overseeing office operations.

**You often say Investment Board Nepal should be the commercial face of government. What are the key motivations to make this PPP agency to act as such?**

The Investment Board Nepal, as the focal institution for Public-Private Partnerships, cannot operate under traditional bureaucratic norms. It must have the agility to act swiftly and decisively. Everyone within the organization should report directly to the CEO and be held accountable for delivering results. Accountability is paramount—not only within IBN but equally among the private sector, bureaucrats, and political leadership.

Secondly, IBN remains a relatively young institution, and Nepal's approach to governance cannot be bound by a static mindset that restricts action due to rigid interpretations of law. This mindset must evolve. If we envision IBN as a long-term institution driving investment, we must demonstrate a willingness to adapt. Where existing laws hinder the entry of serious investors, we need to proactively amend those laws. Parliamentarians must look beyond short-term political interests and focus on the greater national good—after all, they are elected to serve the people and advance the country's development.

Thirdly, the professional capability of personnel is critical. The composition of IBN should reflect a commercially driven government entity that operates with a strong business mindset and can engage effectively with international companies and investors. The team must be as competent—or even more so—than the international firms it collaborates with. The projects IBN oversees are ultimately for Nepal's benefit. Therefore, the Board must prioritize national interest above all else. This requires an in-depth understanding of projects, often deeper than the private sector's so that IBN can rigorously supervise and ensure projects progress according to agreements, down to technical details such as the quality of construction materials in infrastructure like hydropower dams.

Finally, IBN must remain lean and efficient. When specific expertise is required, professionals should be brought in for targeted, time-bound assignments. While the government provides essential support, IBN should progressively move towards financial and operational independence. Its sustainability can be ensured through revenue streams such as Project Development Agreement fees and other service charges. If IBN is managing multiple projects simultaneously, it must be proactive in mobilizing its own resources to maintain operational continuity. This approach will enable IBN not only to sustain itself but also to generate increased revenue contributions back to the government over time.

**PPP is basically sharing of risks and benefits among the government and private sector. Based on your experience what sort of risk sharing mechanism/modality would you recommend, though it varies considering the sectors and projects?**

One of the primary reasons to engage the private sector in PPP projects is to leverage new resources, advanced technology, and superior management skills—areas where the government's capacity and budget are often limited. For a country like Nepal, the government's focus should remain on foundational infrastructure, health, education, effective public service delivery, and robust regulation.

In PPP arrangements, many government risks—such as technical, financial, and managerial risks—are appropriately transferred and shared with the private sector. Historically, government-led project execution has been marked by inefficiencies, including cost overruns and significant delays, often due to contractual and institutional weaknesses. These issues are especially apparent in delays related to contract enforcement and a lack of institutional capacity to manage legal disputes effectively. Contractors typically possess dedicated legal teams and favorable contractual terms, while government agencies frequently struggle with prolonged litigation and enforcement challenges. For instance, several high-profile national projects, including the fast-track highway, have experienced multi-year delays primarily due to these systemic challenges.

At the core of these problems lies a persistent lack of accountability and insufficient project management skills within government institutions, resulting in operational and financial inefficiencies that impose substantial burdens on the nation. These delays not only increase costs but also postpone critical service delivery to the public.

While most project risks—technical, financial, and managerial—are rightly borne by the private sector, the government must retain responsibility for facilitating timely site clearance and coordination. Crucially, the private sector expects assurances regarding delays: if a project's start is postponed, they face direct revenue losses, which must be addressed. Any delay impacts both parties—the private partner's profitability and the government's development goals. However, the private sector cannot be expected to absorb risks arising from government inefficiencies. Additionally, risks beyond the control of private entities—such as political disruptions—require force majeure clauses or appropriate risk exclusions.

In essence, PPP contracts should clearly stipulate that the private sector delivers projects according to agreed terms (e.g., Project Development Agreements or Project Implementation Agreements) and, after a defined operational period (typically 25-30 years), hand over the assets in good condition to the government.

Building robust capacity within government institutions—and correspondingly within the private sector—to draft, negotiate, and manage these complex contracts is critical. Strengthening these capabilities will enable Nepal to successfully implement large-scale PPP projects and harness their full potential for national development.

**In your viewpoint, how can PPPs bring enhanced efficiency, accountability, or innovation in project execution?**

What I have observed is a fundamental misunderstanding among many policymakers who view PPPs simply as investment vehicles, assuming that the private sector will invest while government agencies take a backseat. However, realizing investments through PPPs requires significant groundwork and active government engagement, especially to convince private sector partners.

The first and most critical step is the availability of well-prepared, thoroughly studied PPP projects. Unfortunately, we have often struggled even to prepare such projects adequately. The government must acknowledge that it cannot do everything on its own, and political slogans should never contradict the nation's economic development priorities. Take, for example, the signing of a Project Development Agreement (PDA) for a hydropower project. Before proceeding, it is essential to clearly understand the benefits the project will deliver. Proper project preparation must precede any marketing or investor engagement efforts.

In practice, many government agencies issue Expressions of Interest (EoIs) through local media channels, often targeting a limited or pre-selected group of companies. This contrasts sharply with the best international practices, where market sounding exercises are conducted first, inviting potential investors to provide feedback, refining the project based on that input, and only then issuing the EoI. When EoIs are developed in isolation, they rarely generate genuine interest.

An EoI must reflect a project with balanced, mutually beneficial terms to attract serious private investment. The government should avoid ad hoc and reactive approaches and instead adopt a proactive, professional, and strategic mindset. Moreover, negotiations with the private sector must be conducted on equal footing, marked by competence, transparency, and clarity.

By shifting towards this approach, PPPs can significantly improve efficiency, accountability, and innovation in project execution, unlocking greater value for Nepal's development.

**Do you think Nepal's current PPP institutional and legal framework supports effective collaboration? What improvements do you suggest? What role must federal/ subnational governments play in expanding PPP opportunities?**

Nepal has long-standing technical expertise and institutional knowledge, particularly in the energy sector. For decades, we have developed strong engineering capacity—many were trained at premier institutions like Roorkee with the vision to develop flagship projects such as the Karnali-Chisapani Hydroelectric Project. Successes like Khimti and Bhotekoshi have set valuable precedents, demonstrating our enhanced capacity to manage hydropower PPPs.

However, other sectors such as tourism, hospitality, and infrastructure development lag behind. The government must adopt an integrated planning approach that promotes holistic development. For instance, hydropower projects can be bundled with complementary infrastructure—resorts, cable cars, and access roads—to create commercially attractive packages. This bundling can increase investor interest and improve the bankability of projects when properly reflected in Expressions of Interest (EoIs).

Despite this potential, the government's policies remain inconsistent, and insufficient project preparation continues to impede investment. Across major investment forums, there is a persistent shortage of bankable PPP projects, limiting private sector engagement. Furthermore, the current staffing and operational approach to the PPP agency lacks specialization. Government officials without the right expertise often manage such institutions, undermining their effectiveness.

The recent amendments to the IBN Act, introduced during the 2024 Investment Summit, are a step forward by enabling IBN's operational independence and allowing permanent staffing. However, these changes are not yet sufficient for IBN to fully function as an empowered PPP and investment promotion agency capable of strategic, large-scale facilitation.

As Nepal moves into its federal structure, the expansion of PPP opportunities must leverage the capacities of provincial and local governments. Federal, provincial, and municipal governments each have unique development priorities and closer proximity to local stakeholders. Their involvement is critical in identifying regionally relevant PPP projects, coordinating land acquisition and clearances, and ensuring smoother facilitation at the local level.

Subnational governments should be empowered with clear policy frameworks, capacity-building support, and financial resources to participate actively in PPPs. They can lead smaller-scale or community-focused PPP initiatives that complement national projects, creating a more inclusive and diversified PPP portfolio. Moreover, improved coordination mechanisms between federal and subnational levels will help harmonize investment policies, reduce bureaucratic bottlenecks, and build investor confidence across all tiers of government. By strengthening institutional capacity at all government levels and adopting an integrated, strategic approach, Nepal can significantly improve PPP outcomes and accelerate private sector participation in national development.

**In your opinion, how could PPPs contribute to building a sustainable, resilient, and inclusive economic future for Nepal?**

Given the limited fiscal space and institutional capacity of the government to implement large-scale development projects on its own, Public-Private Partnerships (PPPs) offer a strategic pathway to mobilize private sector investment, technology, and expertise. To unlock this potential, the strengthening of Nepal's PPP institutional framework, particularly IBN is critical.

As per the IBN Act, IBN should function as the nodal PPP agency, responsible not only for facilitating investment but also for identifying systemic barriers and recommending policy reforms to improve the overall investment climate. However, its current role is often constrained by procedural bottlenecks and bureaucratic approval processes. For PPPs to contribute meaningfully to Nepal's sustainable and inclusive economic future, IBN must be repositioned as a proactive, investor-facing institution empowered to lead projects through to financial closure.

Thorough project preparation is equally essential. Line ministries must conduct detailed technical, financial, and environmental assessments of potential projects and make informed decisions about which should be developed through public investment and which through PPP models. IBN should play a catalytic role in this process, offering strategic guidance and ensuring coordination.

Moreover, to make priority PPP projects viable, there must be dedicated focus on structuring appropriate Viability Gap Funding (VGF) mechanisms and assessing contingent liabilities. Without these, many high-impact projects may fail to attract serious investor interest. Although global investor appetite exists, legal reforms, a predictable policy environment, and a skilled, professional PPP agency are essential to convert interest into actual investment.

A pragmatic implementation model would involve IBN managing the project until financial closure, after which execution could be handed over to the relevant line ministry. This transition should be supported by a dedicated Project Management Unit composed of representatives from both IBN and the ministry concerned to ensure smooth and accountable project delivery.

If implemented thoughtfully, PPPs can serve as a powerful tool to drive infrastructure development, enhance service delivery, and create inclusive economic opportunities across Nepal—laying the foundation for a more resilient and sustainable future.

**In brief, what would be your core message to policymakers and private leaders about scaling PPPs in Nepal?**

To effectively scale Public-Private Partnerships in Nepal and attract meaningful investment, it is imperative that we move beyond ad hoc practices and adopt a more structured, transparent, and investor-friendly approach. A comprehensive overhaul of laws, processes, and institutions is urgently needed to build investor confidence and create a competitive, predictable investment environment. This must be a national priority—championed not just by the Prime Minister and ministers, but by political parties, the domestic private sector, and all key stakeholders. There are no shortcuts; sustained investment will only come if we offer well-prepared projects, clear returns, and reliable, efficient services.

## PUBLIC-PRIVATE PARTNERSHIPS IN NEPAL

# Prevailing Realities and Prospects

**Mr. Sushil Bhatta, Patron, Nepalese Association of PPP Professionals and Practitioners (NAPPP) is a distinguished leader in Nepal's investment sector with over two decades of experience across planning, finance and infrastructure development. As former CEO of Investment Board Nepal (IBN), he led its transformation into a PPP Centre of Excellence, facilitating PPP projects with investments around NPR 697 billion (USD 5.2 billion), including hydropower and solar projects around 3,500 MW. He also served as a Member of the National Planning Commission & led formulation of sectoral plan of transport, urban development, and PPPs for Nepal's 15th periodic plan. He is widely recognized for development of the National Project Bank & development of digital based system, procedure & protocols for fiscal transfer mechanism and its implementation. He is a recipient of the Prabal Janasewa Shree (2017/18) and the "CEO with HR Orientation Award" (World HRD Congress, 2018). With degrees in Engineering and MBA, he is also a visiting faculty at KUSOM/KU. He is Past President of Management Association of Nepal(MAN) and member of NEA, and NEPCA.**

**Introduction**

Nepal, a rapidly evolving economy, faces the challenge of bridging its infrastructure gap to accelerate development. Public-Private Partnerships (PPPs) have emerged as a strategic mechanism to leverage private capital and expertise in particular for large-scale projects, from hydropower to highways. Over the past three decades, Nepal has experimented with various PPP models, with BOOT as a successful model in hydropower and renewable energy. PPP achievement in renewable sector of Nepal and extensive application of PPPs in many parts of the world in last decade evidenced PPP as a strategic model for effective mobilization of private capital and management in infrastructure development. Nevertheless, growth of PPP adoption has not matched expectations of Nepal in other sectors, like road and urban development and demanded for reality check with expectations for leveraging PPP in future.

**Current State of PPP in Nepal: Policies and Trends**

1. *Evolution of PPP Policy and Legal Framework*

Nepal's engagement with PPPs dates back to the early 1990s when the government introduced the Build-Own-Operate-Transfer (BOOT) approach as part of its Eighth Plan (1992–1997) (MoEWRI, 1992). The Electricity Act 1992 and Hydropower Policy 1992 opened the door for private and foreign investment in power generation, breaking the state monopoly in the sector (MoEWRI, 1992). These reforms enabled private and foreign investment in generation, introducing Nepal's first PPP-type projects in energy.

Recognizing the need for a structured PPP framework, Investment Board Nepal was established following enactment of Investment Board Act, 2011 which was replaced by Public-Private Partnership and Investment Act (PPPIA) 2019 and Public-Private Partnership and Investment Rule (PPPIR) 2020 which provided a comprehensive legal and procedural framework for PPPs. This law complemented the Foreign Investment and Technology Transfer Act (FITTA) 2019, further streamlining the foreign direct investment (FDI) process.

*2. Institutional Framework and Investment Trends*

Nepal's PPP experience has been dominated by renewable energy, particularly hydropower, yet its expansion into other sectors remains limited. The PPP landscape still lacks a balanced distribution across other infrastructure sectors.

*2.1 Investment Trends and Sectoral Disparities*

- Hydropower projects continue to receive the highest share of PPP investments due to clear pricing policies and well-established legal frameworks. However, it is yet to scaled up for storage projects.
- Urban infrastructure initiatives such as real-estate development , waste management, and water supply projects have seen modest PPP participation, largely due to unclear revenue models and no-clear policies resulting funding uncertainties from private sector.
- Transportation projects (e.g., toll roads, tunnels, and airport expansions) have only recently begun gaining traction under PPP models, but policy and financial structuring including risk and return challenges persist.
- Social sector PPPs (education, healthcare) remain at an early stage, with pilot initiatives yet to reach scalability.

Investment data suggests that foreign developers dominate large-scale hydroelectric projects, while domestic investors tend to fund small to medium ventures. Nepal has made efforts to increase private-sector financing, with the government primarily facilitating through land provision, fiscal and regulatory incentives, and tax exemptions (Ministry of Finance, 2023).

*2.2 Institutional Framework and Governance*

To bolster the PPP ecosystem, Nepal introduced the Public-Private Partnership and Investment Act (PPPIA) 2019, providing a robust legal foundation for PPP. The IBN plays a key role in overseeing PPP projects above NPR 6 billion (around USD 50 million) for sectors other than energy sector and energy sector above 200MW, while projects below the given thresholds fall under sectoral ministries, provincial authorities and Local Government (Investment Board Nepal, 2019). In order to strengthen institutional framework and PPP governance need to focus on:

- **IBN's Institutional capacity constraints–** It operated with limited permanent staff from GoN, under deputation along with their frequent transfers, including some support of consulting staff by FCDO in the past, affecting institutional memory and continuity of expert staff in institution.
- **Unclear government support mechanisms–** Although Viability Gap Funding (VGF) exists on paper, it lacks clear policies and criteria for allocation, leaving investors uncertain about government co-financing and VGF support.
- **Coordination challenges within and between federal agencies and Subnational Governments–** The lack of well-defined roles in project execution and lack of accountability has slowed PPP adoption across different government levels .
- **Lack of bankable project pipeline-**For PPPs to expand beyond the energy sector, Nepal must go beyond policy reforms and should invest in developing a credible, bankable project pipeline. This requires dedicated time, funding, and technical effort to carry out feasibility studies, risk assessments, and project and financial structuring. Without well-prepared, investable projects, private investors will remain hesitant. A strong project pipeline—supported by a project development facility and appropriate PPP models is essential to attract investments in diversified sector and ensure timely project execution.

## Renewable Energy PPPs: Key Projects and Lessons Learned

The renewable energy sector (primarily hydropower) has been the proving ground for Nepal's PPP model. The country's geography endows it with about 43,000 MW of commercial hydropower potential, often dubbed "white gold." Tapping this resource has been a national priority, and PPPs have played a crucial role in moving from theory to reality. This section highlights key large-scale renewable energy projects developed under PPP frameworks, assessing their outcomes and what they imply for replication in other projects and sectors.

*1. Pioneering PPP Projects in Hydropower*

Nepal's first PPP-style energy projects emerged in the late 1990s with the 60 MW Khimti-I and 45 MW Upper Bhote Koshi hydropower plants. These were pioneering independent power producers (IPPs) operating under build-own-operate-transfer models, setting a precedent for future PPP ventures (IPPAN, 2022). Both projects encountered challenges, from tariff negotiations to navigating early-stage regulatory environments, yet successfully demonstrated the viability of private sector involvement in Nepal's power sector.

During the 2000s, Nepal expanded PPPs in hydropower with projects such as the 22 MW Chilime Hydropower Project and the 456 MW Upper Tamakoshi Hydroelectric Project. Chilime was developed with domestic financing , fostering broader participation including local stakeholders.

*2. Large-Scale Foreign Investment in Hydropower*

Foreign investment has played a crucial role in scaling up Nepal's hydropower capacity. The 900 MW Arun-3 Hydroelectric Project, being developed by SAPDC, is an example of a well-structured foreign-led PPP (Satluj Jal Vidyut Nigam Limited, 2023). Likewise, the 900 MW Upper Karnali Hydropower Project, assigned to GMR Upper Karnali Hydropower Limited, showcases both the opportunities and constraints in implementing large-scale hydropower PPPs. While Arun-3 has progressed steadily, Upper Karnali has faced financial closure delays and power purchase agreement hurdles.

Chinese investment in Nepal's hydropower sector in PPP models like Upper Marsyangdi-2 (327 MW), Upper Marsyangdi A (50 MW) and Upper Madi (25 MW) and Upper Trishuli-1 (216 MW) developed by Korean investor with international financing reflects confidence of foreign investment in PPP Projects in Nepal.

*3. Diversification: Solar and Wind PPPs*

The Nepalese government has set an ambitious target of 10,000 MW of solar power capacity by 2035, signaling a transition toward diversified energy sources. This shift opens significant PPP opportunities in solar and wind energy. The Nepal Electricity Authority (NEA) has initiated pilot solar PPP projects with 25-year power purchase agreements (PPAs) and viability gap funding support to encourage private sector involvement (Nepal Electricity Authority, 2023). However, large-scale solar projects in Nepal are still in their infancy, presenting opportunities for private investment in utility-scale solar farms and hybrid solutions.

Commercial wind power remains largely untapped in Nepal. Preliminary assessments in Mustang and Palpa regions have identified potential wind corridors, and policy adjustments may soon enable greater private sector participation in wind energy PPPs (MoEWRI, 2023).

Beyond hydropower, IBN has been facilitating projects in sectors like solar energy, logistics, manufacturing, cable cars, and fertilizer plants, but most initiatives stalled due to various issues such as land acquisition, unclear Project structuring, inter-agency coordination, and project bankability. For instance, Solar projects are grappling with grid and PPA uncertainties. Hence there is a need for clearer frameworks, credible project development, and stronger implementation readiness.

**PPP Readiness: The Imperative of Early Coordination**

Drawing from practical experiences at IBN, it became increasingly evident that while policy intent and political commitment toward PPPs were commendably strong, challenges persisted at the project development stage. Several projects, despite receiving strategic-level endorsements, suffered avoidable delays due to insufficient project preparation and readiness on the ground, including ready to go PPP projects. "Ready to Go" PPP projects refer to those that have received strategic-level approvals and are considered prepared for procurement—either through solicited or unsolicited proposals. However, many such projects often lack key preparatory components like detailed feasibility studies, Value for Money (VfM) analysis, risk assessments, and stakeholder consultations. As a result, despite appearing procurement-ready on paper, these projects encounter delays during implementation due to gaps in financial structuring, legal clarity, or technical design.

In some cases, project/s encounter delays due to administrative bottlenecks or institutional ambiguity though developers had mobilized substantial financial and technical commitments. Conversely, on the public sector side, there were instances where project documentation had progressed without adequate private sector input consultation and required input or clarity on investment structuring. These gaps—***often not of intent but of coordination***—caused downstream setbacks.

These experiences highlight the need for an integrated project development philosophy. PPPs require more than just a good idea—they demand synchrony across technical scoping, legal vetting, social acceptability, and institutional alignment. Establishing standardized pre-feasibility and feasibility frameworks and procurement guidelines, setting realistic timelines for key preparatory milestones, and ensuring clear institutional ownership within line ministries can significantly reduce coordination gaps and enhance project readiness. In order to enhance co-ordination and improve PPP readiness we must focus on the following:

1. *Institutional Strengthening through financial and organizational sustainability*

Approval of IBN Fund and PPPIA amendment for provisioning of recruiting its permanent staff at OIBN are important step towards empowering IBN as a specialized IPA. Continued advocacy and follow up with competent authority for long-term human resources well versed with investment & PPP premise in IBN was reflected by the formal approval of amendments to the Public-Private Partnership and Investment Act in 2024, enabling the recruitment of permanent, gazetted-level professionals (upto 2nd class level) into the IBN structure. This reform did not arrive overnight; it was the product of continuous engagement with policymakers, a strong case with persuasion for long-term HR capacity needs, and a shared recognition that Direct Investment and PPP is specialised business where project preparation, procurement and implementation arrangements demands domain specific expertise.

The ability to build a core team of engineers, legal experts, financial analysts, economists and environmental specialists under a permanent framework is transformative towards IBN organizational sustainability and its credibility. From a leadership standpoint, it offers not just stability, but also accountability. Permanent staff are more accountable and have ownership over the outcomes of their work. Moreover, they serve as institutional memory, enabling knowledge absorption, preservation, and effective utilization—facilitating fast-tracked implementation, consistent handholding support, and smoother transitions across project phases by reducing the learning curve. And, IBN fund, with its broadening and strengthening, shall provide the financial sustainability of OIBN for project preparation and capacity building of HR as well as financial support in PPPs in the long run.

2. *Fostering a Facilitative and Coordinated Governance Culture*

One of the more nuanced learnings from IBN was that PPP success often hinges less on technical complexity and more on the quality of inter-agency cooperation. In the absence of a single window or centralized facilitative authority, project sponsors—especially foreign investors—often struggled to navigate Nepal's multi-layered bureaucracy. Coordination with ministries, local governments, regulators, and technical departments could be time-consuming, even when all parties were broadly supportive of the project.

These interactions, however, were not without value. They served as platforms for sensitization and helped establish shared expectations. But they also underscored the need for a dedicated PPP facilitation unit that is well versed in PPP business and can support cross-cutting functions such as legal due diligence, fiscal risk assessment, and dispute resolution in a more structured manner. Simultaneously, it is my firm belief that IBN can evolve into more than a project execution agency. It has the potential to serve as a Centre of Excellence—offering training, developing model contracts, curating best practices, and guiding provinces and municipalities in their PPP efforts. Strengthening such a knowledge hub would greatly contribute to coherence and quality across Nepal's infrastructure pipeline (Investment Board Nepal, 2021).

The Investment Board Nepal (IBN), through its Project Bank and associated guidelines, fosters a facilitative and coordinated governance culture by institutionalizing systematic mechanisms for project identification, selection, and prioritization. One of the key tools in this effort is the Project Screening and Appraisal Tool (PSAT), which provides a standardized framework for assessing Public-Private Partnership (PPP) project proposals (solicited and unsolicited) against criteria such as strategic relevance, technical feasibility, financial viability, environmental sustainability, and social impact (Investment Board Nepal, 2021). This ensures that only high-priority, well-prepared projects are selected for advancement into the IBN Project Bank, enabling efficient resource allocation and alignment with national development goals.

To further streamline PPP implementation, IBN has developed protocols that improve the procurement process, encompassing both project marketing and the handling of solicited and unsolicited proposals. This includes proactive investor outreach, clear project profiling, and transparent processing steps for Unsolicited Proposals (USPs), as outlined in the Project Bank Guideline. By operationalizing a competitive and accountable framework, IBN minimizes administrative delays and ensures clarity for all stakeholders involved.

Additionally, the drafting and negotiation of concession agreements are undertaken through a structured, inter-agency coordination mechanism that draws from best practices and risk-allocation principles. IBN facilitates multi-stakeholder consultations to build consensus on key contract terms, including tariff mechanisms, dispute resolution, and government support measures. This approach not only strengthens investor confidence but also reflects a broader institutional commitment to coordinated governance, legal clarity, and fair public-private risk sharing—key pillars for sustainable infrastructure development in Nepal.

*3. Institutionalizing PPPs for Resilient Development*

In many policy forums and institutional consultations, a persistent narrative surrounds Public-Private Partnerships (PPPs): that they are inherently risky, bureaucratically sluggish, and suitable only for large or technically complex infrastructure projects. While such perceptions may be grounded in past experiences, they often overlook the fundamental purpose and evolving maturity of the PPP model. In today's fiscal climate—where public resources are stretched and innovative service delivery is imperative—there is a pressing need to shift this mindset and embrace PPPs as a mainstream mechanism for public service provision.

Transforming this perception requires first and foremost the creation of confidence within the public sector. Public institutions must move beyond the view of PPPs as complex and risky and instead see them as structured, evidence-based instruments governed by clear legal frameworks. Key to this transformation is building the capacity of civil servants through targeted exposure, cross-jurisdictional learning, and demonstration projects that highlight well-executed PPPs. When officials are empowered to innovate, negotiate effectively, and manage risks within an enabling policy environment, PPPs can become a credible tool in their development arsenal.

Critically, it must be understood that PPPs do not entail a full transfer of risk to the private sector. Rather, they embody a principle of risk sharing, wherein substantial risks—such as construction, operational, and financial risks—are transferred to the private partner, while the public sector retains oversight and regulatory authority. This risk-sharing model is not only strategic but also justifiable when matched with appropriate returns for the private sector.

To determine whether a PPP structure delivers better outcomes than traditional public procurement, governments must systematically apply Value for Money (VfM) analysis & Project life cycle Cost Analysis. Central to this is the Public Sector Comparator (PSC), a benchmarking tool that evaluates the lifecycle cost, efficiency, and performance potential of a PPP project against a hypothetical publicly funded equivalent. The PSC provides a critical evidence base for decision-makers, ensuring that PPPs are pursued only when they demonstrably offer greater value.

Equally important is the careful evaluation of contingent liabilities associated with PPP projects. These include government obligations that may be triggered under specific scenarios—such as revenue shortfalls, guarantees, or early termination clauses. If not properly identified and accounted for, these liabilities can pose significant fiscal risks. Thus, institutional arrangements must include fiscal risk units and project preparation facilities capable of quantifying, managing, and disclosing such obligations transparently.

Ultimately, for PPPs to serve as reliable instruments of inclusive and resilient development, they must be institutionalized within national planning, fiscal budgeting, and project procurement. This demands not only technical readiness but also a cultural shift within the public sector—one that recognizes PPPs not as exceptions, but as strategic enablers of public value and long-term impact.

**Public Investment Management and National Interest Promotion through PPP**

Public-Private Partnerships (PPPs) are not just financial instruments for infrastructure development but also strategic tools for managing public investments in alignment with national interests for introducing Project efficiency in terms of time and cost. In Nepal, PPPs have played a crucial role in mobilizing foreign and domestic capital, particularly in energy sector. The Fifteenth Plan (2019/20–2023/24) played a pivotal role in advancing Nepal's investment agenda by positioning Public-Private Partnerships (PPPs) as a core strategy for national development. It emphasized mobilizing over half of total planned investment from the private sector, operationalizing a National Project Bank, and strengthening institutions like the Investment Board Nepal to facilitate PPPs (National Planning Commission, 2020). By embedding PPPs into the country's policy framework, the plan laid the foundation for structured, transparent, and investment-friendly project delivery. However, aligning these investments with long-term national priorities—such as economic sovereignty, financial sustainability, and inclusive growth—requires more robust public expenditure and investment management systems and a clearly defined strategic framework to guide PPP planning and implementation.

1. *Role of PPPs in Public Investment Management*

PPPs involve structuring partnerships to attract capital while balancing public and private interests. Nepal has made progress in formalizing PPP mechanisms, but several challenges persist. One of the most significant issues is Nepal's heavy reliance on foreign capital, particularly in large-scale hydropower projects, which exposes the country to external financial risks. At the same time, domestic banks and financial institutions have limited capacity for long-term infrastructure financing, which restricts local investment in PPP projects (Ministry of Finance, 2023). Additionally, risk-sharing frameworks such as Viability Gap Funding (VGF) have not been effectively implemented, leaving private investors to shoulder most of the financial burden (Dhakal, 2025). To improve investment management, Nepal needs clearer financial structuring strategies along with risk structuring, including blended finance models, long-term infrastructure bonds, and stronger public-sector financial participation in critical projects. At the same time contingent liabilities should be properly anlaysed and factor in while preparing for implementation for PPP projects.

2. *Aligning PPP with National Interest*

While Public-Private Partnerships (PPPs) present important opportunities for economic growth and regional connectivity, it is essential that investment decisions align with Nepal's long-term strategic interests. A recurring concern is the preservation of economic sovereignty, particularly in infrastructure sectors where large-scale foreign investments play a dominant role. Few hydropower and transmission projects have been structured primarily for export markets, raising questions about whether sufficient safeguards exist to ensure domestic energy availability, affordable tariffs, and equitable benefit sharing (World Bank, 2022; Ministry of Energy, 2018). Though electricity exports can enhance foreign exchange earnings and project viability, Nepal's seasonal power shortages and growing domestic demand necessitate clear provisions within PPP contracts that guarantee national supply commitments and reinvestment into local infrastructure (IMF, 2023; ADB, 2022). Without such mechanisms, projects risk becoming economically extractive—where private investors benefit from market access without contributing to domestic resilience—undermining long-term commercial and strategic sustainability.

Reducing dependency on external grants is another essential aspect of promoting national interests through PPPs, given Nepal's aim to promote from LDC status. Nepal must strengthen its domestic financial ecosystem along with development of capital market to encourage and increase financing capacity of local financial institution, pension funds, and private investors to participate in infrastructure and development PPPs. The government can issue infrastructure bonds or sovereign guarantees to raise local financing for priority projects, reducing excessive reliance on foreign capital. Furthermore, Nepal could also diversify PPP beyond HEPs by adopting or developing appropriate PPP model. Currently, approximately 46% of all foreign investment commitments have been directed toward the energy sector, while other critical areas such as transportation, healthcare, and education remain largely untapped (Ministry of Finance, 2023). A sectoral diversification strategy will enhance Nepal's economic resilience and reduce the risks associated with over-reliance on a single sector.

Ultimately, Nepal must transition from a reactive, project-based PPP model to a proactive, national-interest-driven framework. Strengthening domestic participation, ensuring equitable benefits from foreign investments, and expanding PPPs into diverse sectors will allow Nepal to fully leverage PPPs for long-term economic growth. By implementing these strategies, Nepal can improve investment management practices and ensure that PPPs contribute to sustainable national development.

**Reflections and Recommendations for Enhancing PPP Effectiveness in Nepal**

Over the years, Nepal has taken commendable steps toward institutionalizing Public-Private Partnerships (PPPs). The enactment of key legislation, the operationalization of the Investment Board Nepal (IBN), and the successful negotiation of large-scale projects in energy and transport underscore our growing capability in deploying PPPs as strategic tool for infrastructure development. These developments signal an evolution from concept to practice—yet the journey toward maturity is still ongoing.

It must be understood that while legal framework and intent are in place, their realization in practice demands consistency, commitment, and continued refinement. The challenge now is less about introducing new reforms and more about consolidating the gains made. Building on established momentum—rather than resetting strategies—will yield far greater dividends in credibility, efficiency, and investor confidence.

It is equally important that we do not allow institutional learning to dissipate during transitions. The progress made in recent years offers a solid foundation; it now requires reinforcement through action. Below are reflections and strategic directions that could meaningfully enhance the effectiveness of Nepal's PPP landscape:

- **Institutional Capacity and Continuity**: One of the foundational shifts must be toward a permanent, professional PPP cadre within government institutions—both at the federal and provincial levels. Long-term projects require long-term stewardship. Institutionalizing expert teams with sectoral, legal, and financial expertise helps retain institutional memory, ensures continuity, and strengthens project execution.

- **Operationalizing Viability Gap Funding (VGF)**: The enabling provisions for VGF exist within the legal framework. However, practical implementation has lagged. Many socially impactful projects—such as in waste management, rural connectivity, or mini-hydro—struggle due to marginal commercial viability. Establishing predefined eligibility criteria, dedicated funding windows, and transparent processes for VGF allocation would significantly improve project bankability and attract serious investors.

- **Streamlining Approvals and Coordination**: Investors, both domestic and foreign, repeatedly emphasized the need for more predictable and time-bound project facilitation processes. A functional single-window mechanism, with digital tracking and strict timelines, coordinated by IBN or a facilitative unit within the Ministry of Finance or OPMCM, could address these challenges. Furthermore, synchronized handling of land, environmental, and fiscal approvals would compress development timelines and boost investor confidence.

- **Stability and Credibility of Policy Commitments**: Experience shows that PPPs thrive in environments of policy predictability. Long-term investors are particularly sensitive to shifts in commitments. Ensuring that agreements—once signed—are upheld, and that changes are subject to transparent legal processes, is essential. Institutional mechanisms such as bipartisan consensus-building and parliamentary briefings can help insulate strategic infrastructure projects from short-term political dynamics.

- **Strengthening Project Preparation and Transaction Design**: Projects that undergo robust feasibility and structuring processes tend to have smoother lifecycles. Access to project preparation funding—such as through

IBN's Project Preparation Fund—alongside engagement with experienced transaction advisors and development finance institutions, is vital. From safeguards to financial modeling, this early investment mitigates downstream renegotiations and enhances investor trust.

- **Expanding the Financial Ecosystem**: The ability of local banks to finance long-tenure infrastructure remains limited. Exploring instruments such as infrastructure bonds, central bank-backed refinancing, and risk-sharing facilities with multilateral institutions could gradually change this. Equally, managing currency risk through hedging mechanisms or development guarantees will be critical to unlocking foreign capital for PPPs (World Bank Group, 2025).

- **Community Engagement and Social Alignment**: From what has been observed, projects with early and meaningful community engagement are more resilient. Mechanisms such as community development funds, local benefit-sharing models, and employment prioritization can transform communities into stakeholders. More broadly, fostering an understanding that PPPs are not privatization—but co-investment in public service—will be essential for public trust.

- **Embedding Global Good Practices**: In designing contracts and evaluating proposals, benchmarking against international best practices—such as Value for Money (VfM) assessments and public sector comparators—enhances credibility. These tools must be adapted to Nepal's institutional context but anchored in global learning. Continued participation in regional and global PPP networks can accelerate our learning curve.

- **Sector-Specific Approaches**: From hydropower to healthcare, each sector presents unique risks and financing models. Developing tailored guidelines—such as payment modalities, user charges, or regulatory oversight—at the sectoral level can pre-empt ambiguities and reduce room for negotiation-based deviations. Cross-ministry collaboration with IBN will be key here.

- **Transparency and Performance Monitoring**: Finally, fostering a culture of openness around PPP outcomes—through published contracts, Key Performance Indicators (KPIs), audit findings, and progress reports—can build public and investor confidence. Instituting annual PPP performance reviews that are publicly accessible would establish accountability while enabling adaptive policy responses.

Implementing these strategic directions is not without its challenges. However, the institutional groundwork laid thus far offers a solid base. With renewed focus on execution, transparency, and inter-agency coordination, Nepal can position its PPP regime as a model for resilient and inclusive development in the region.

**Conclusion**

Public-Private Partnerships offer Nepal a pathway to achieve infrastructure and development goals that might otherwise remain out of reach under constrained public budgets. The current state of PPPs in Nepal, particularly the strides made in the renewable energy sector, demonstrates both the promise of this model and the areas requiring further work. We have seen how projects like hydropower plants, developed through creative partnerships, can deliver transformative impacts – electrifying the nation, generating revenue, and fostering regional cooperation. These successes, as well as the setbacks, carry lessons that are applicable far beyond energy. Other emerging sectors – from transport to urban services to social infrastructure – stand to benefit by adapting the PPP model with learned good practices from our current PPP experiences. Nepal's government has shown commendable initiative in recent years: updating laws, setting up institutional frameworks, and proactively courting investment for PPP projects. Nepal must articulate a clear vision for a future where PPPs drive development and where Nepal positions itself as an investment-friendly destination by adhering to global standards. The focus now must be on execution – translating plans and policies into real projects on the ground, and doing so in a manner that is efficient, transparent, and mutually beneficial for public and private partners. By resolving institutional and financial constraints, ensuring policy stability, and strengthening both public and private sector capability and accountability, Nepal can substantially enhance the effectiveness and success rate of PPP projects.

**References**


Dhakal, M. (2025, February 2). A decade on, VGF still remains limited to rhetoric at expense of development projects. *The Rising Nepal.*

Government of Nepal. (2021). *Nepal's Long-term Strategy for Net-zero Emissions (LT-LEDS).* Kathmandu, Nepal: Government of Nepal, Ministry of Forests and Environment.

Investment Board Nepal. (2011). *Investment Board Act.* Government of Nepal, Investment Board Nepal. Kathmandu: Investment Board Nepal.

Investment Board Nepal. (2019). *Public Private Partnership and Investment Act 2019.* Government of Nepal, Investment Board Nepal. Babarmahal, Kathmandu: Law Books Management Board.

Investment Board Nepal. (2021). *Business Plan (FY 2021/22 - 2025/26).* Kathmandu : Investment Board Nepal.

Investment Board Nepal. (2021). *Project Bank Guideline.* Kathmandu : Investment Board Nepal.

Investment Board Nepal. (2021). *Strategic Plan.* Investment Board Nepal.

IPPAN. (2022). *Nepal's first PPP hydropower Projects: A review.* Kathmandu: Independent Power Producers' Association of Nepal.

Ministry of Finance. (2023). *Foriegn Direct Investment Report 2023.* Kathmandu: Government of Nepal.

MoEWRI. (1992). *Electricity Act, 2049 (1992).* Government of Nepal, Ministry of Energy, Water Resources and Irrigation. Kathmandu: Government of Nepal. Retrieved from https://moewri.gov.np/storage/listies/May2020/electricity-act-2049-english.pdf

MoEWRI. (1992). *Hydropower Policy 1992.* Ministry of Energy, Water Resources and Irrigation. Kathmandu: Government of Nepal.

MoEWRI. (2023). *Wind Energy Potential in Nepal: Mustang and Palpa Assessment Report.* Kathmandu: Ministry of Energy, Water Resources, and Irrigation.

MoF. (2024). *Per Capita GDP (FY 2023/24). Macroeconomic Indicators Dashboard.* Ministry of Finance. Kathmandu: Government of Nepal.

National Planning Commission. (1992). *Eighth Five-Year Plan (1992-1997).* Kathmandu: Government of Nepal.

National Planning Commission. (2020). *The Fifteenth Plan (Fiscal Year 2019/20–2023/24).* Kathmandu: Government of Nepal.

Nepal Electricity Authority. (2022). *Upper Tamakoshi Project Review.* Kathmandu: Nepal Electricity Authority.

Nepal Electricity Authority. (2023). *Solar Energy Development Plan for Nepal: 2035 Target.* Kathmandu, Nepal: Nepal Electricity Authority.

Nepal Electricity Authority. (2024). *NEA Annual Report 2023/24.* Durbar Marg, Kathmandu: Nepal Electricity Authority.

Nepal Electricity Authority. (Annual Report 2023). *2023.* Kathmandu: Nepal Electricity Authority.

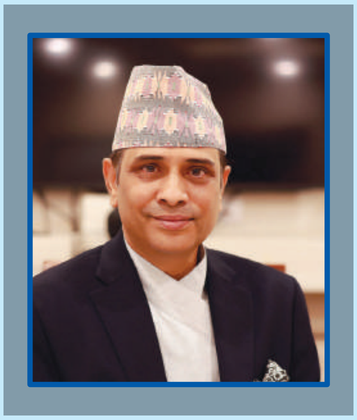
NHPC. (2022). *West Seti Hydropower Project Feasibility Study Report.* New Delhio, India: National Hydroelectric Power Corporation.

Satluj Jal Vidyut Nigam Limited. (2023). *Arun-3 Hydroelectric Project Progress Report.* New Delhi, India: Satluj Jal Vidyut Nigam Limited.

World Bank Group. (2025). *Guarantee Mechanisms in PPPs.* (World Bank Group) Retrieved June 15, 2025, from Public-Private Partnership Resource Center: https://ppp.worldbank.org/public-private-partnership/guarantees#:~:text=Government%20Guarantees, significantly%20affect%20a%20 project%27s%20viability.

## SECTORAL OPPORTUNITIES

# PPP in Public Infra and Services



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**Background**

Nepal is slowly recognizing Public-Private Partnerships (PPPs) as a strategic mechanism to bridge infrastructure financing gaps and accelerate economic development (TechTarget, 2024). Public Private Partnership and Investment Act, 2019, envisions leveraging public-private partnership (PPP) in infrastructure and service delivery (Government of Nepal, 2019). Nepal has successfully demonstrated implementation of PPP projects in infrastructure and management contract/leasing of public properties.

Nepal has tremendous opportunities of leveraging PPP in both infrastructure development and service delivery. Nepal's PPP policy clearly outlines the sectors having potential for leveraging PPP such as road, tunnels, waterways, cable car and hydropower projects among others (Investment Board Nepal, 2023).

**PPP landscape in Nepal**

The energy sector, especially hydropower, has been the primary focus of PPP investments in Nepal. Notable projects like the Arun-3 and Upper Karnali Hydropower Projects are being developed under the PPP model, with significant involvement from both domestic and foreign private investors . The Nepal Electricity Authority (NEA) has also been proactive in promoting energy projects through PPP arrangements.

Beyond energy, the government has extended Viability Gap Funding (VGF) to sectors such as cement and hospitality to attract private investments, facilitating infrastructure development like access roads and electrification at project sites (Investment Board Nepal, 2023). However, the adoption of PPPs in other public infrastructure domains—such as toll roads, metro systems, and airports—remains limited compared to neighbouring countries like India.

Basically, investment of foreign and domestic private sector is mobilized in the hydropower sector and the state-owned Nepal Electricity Authority has also been promoting energy projects. Private sector's participation in development of energy sector (basically, hydropower generation) has transformed the landscape of energy

**Public Private Partnership at a glance**

| Sectors | Models | Challenges | Rationale |
|---|---|---|---|
| - Energy<br>- Transportation<br>- Solid waste management<br>- Inland waterways<br>- Healthcare<br>- Education<br>- Water & sanitation<br>- Other infrastructures | - Design and Build<br>- DBFOM (Design, build, finance, operation and maintenance)<br>- Operation and maintenance<br>- Design, build, finance, operate<br>- BOO (Build, own, operate)<br>- BOOT (Build, own, operate and transfer)<br>- BBO (Buy, build, operate)<br>- BLOT (Build, lease, operate and transfer)<br>- Operation license<br>- Finance only | - Complex with multiple stakeholders<br>- long-term and difficult to get out of<br>- High risk of cost overruns, schedule delays | - Value for money (VfM)<br>- Risk transfer<br>- Innovation<br>- Off-balance sheet accounting |

*Source: (World Bank, 2023)*

sector in Nepal. Apart from this, the government has extended VGF (viability gap funding) to cement and hotel industries to lure private investments through development of access road and electrification to project site, factory location and mines. Apart from hydropower, PPP in public infrastructures like toll roads, metro or airports and other infrastructures like in India can be replicated in Nepal. Initially, we've developed some cable car projects on Build-Own-Operate-Transfer (BOOT) model. Hetauda-Kathmandu tunnel project was another significant project proposed under PPP, which is remained in limbo without any progress since long. We even couldn't progress in brownfield projects as well (The Kathmandu Post, 2023).

Public-Private Partnerships (PPPs) are fundamentally based on the principle of a fair and strategic sharing of responsibilities, risks, and rewards between the public sector (government) and the private sector (World Bank, 2024). Various models of PPPs exist, depending on the nature of project development and financing needs. A typical model involves the government providing essential resources, such as land, while the private sector mobilizes the required capital, recoups its investment, and generates returns through operating revenues over a concession period of 20 to 30 years.

Although Nepal has envisioned the development of large-scale infrastructure projects such as the Nijgadh International Airport under the PPP model, these initiatives have struggled to gain meaningful momentum (National Planning Commission, 2024). Given Nepal's challenging geography, the government should actively promote private sector participation in the development of tunnel roads, which offer viable prospects for toll collection and commercial success. In addition, bridges can be designed to serve multiple purposes—similar to the Harbour Bridge in Sydney—which accommodates pedestrian walkways, cycle lanes, vehicular traffic, and railway lines. For instance, a multipurpose bridge over the Narayani River could enhance transportation connectivity while simultaneously promoting tourism and recreational activities around pilgrimage sites like Devghat (National Planning Commission, 2024). Recognizing these opportunities, it is essential for the government to systematically roll out PPPs across both greenfield and brownfield projects using appropriate, well-tailored models to maximize infrastructure development and private sector engagement. Nepal can attract private sector investment in commercially viable projects, which must be pondered up. Even the services, even immigration are being handled by private sector, tariff collections (of public utilities) and others (World Bank, 2023).

The 16th plan of the Government of Nepal has envisioned to fill investment gap through alternative source of financing such as PPP, blending finance, Project Development Bond, green financing, climate financing and carbon tax among others. In the view of shrinking revenue base of the government, PPP can be the viable solution to achieve the national development targets (National Planning Commission, 2024).

Principally, the government is enabler for private investment. The government shall ensure basic public infrastructure and investment in health and education (for human capital development). Viability Gap Funding (VGF) and be provided in different ways, not only the monetary incentives, there can be other ways such as land and subsidised loan or other different ways to make the project viable for private sector investment (National Planning Commission, 2024). Effectiveness of Investment Board Nepal, national PPP agency of the government, shall be enhanced. There has been exemplary works in India, China and other countries, their learning and experience can provide insights to us in regard to maximize output from leveraging PPP.

The budget of FY 2024/25, has outlined the potential of utilizing different tools, such as hybrid annuity model (HAM), India has successfully implemented HAM in road sector. Revenue risk of private sector is fully covered in HAM and the private sector develop the project on time as it also has stake on it. Even the flyovers in Kathmandu and major cities can be developed in PPP, if people have to use short route shall use these facilities, where private sector can collect tolls from electronic cards or other modes of payments.

**PPP in services and innovative projects**

The government can rollout PPP for effective service delivery primarily to manage the crowd availing government service, such as driving license, vehicle renewal and passport services among others except the core functions of the government (Investment Board Nepal, 2023).

The fundamental, we should understand is that private sector investment can't be attracted without incentives. Currently, around Rs. 700 billion rupees is available in the banking sector, which can be mobilised under private sector lending. Project based lending provision could facilitate innovate projects and the government can orient/facilitate private sector for some critical and innovative projects. For example, the fiscal budget 2024/25 had envisioned to facilitate private sector to develop 50,000 units of low-cost (affordable) houses in the outskirts of Kathmandu valley. If the private sector initiated such project, the government can offer improved road and other basic amenities. There could be various alternatives to develop such projects, such as the government can do land pooling for housing development and call for open bidding to the private sector for housing development abiding the prototype developed by the Department of Buildings and sell it to the consumers at affordable prices.

Moreover, Nepal has wealth of experience in implementing hydropower in PPP model. Most of them are run-of-the-river projects and we're compelled to import electricity from India in dry season indicative through our import dependence of 27% towards electricity consumption in Nepal though imports. There could be prospect of onboarding private sector to increase share of clean energy in total energy consumption at the household level. Similarly, private sector players can be welcomed to develop transmission and distribution system as well. Further, bus parks can be developed in PPP instead of spending scarce resource of the government in such commercially viable projects. In the past, we'd rounds of meeting with Lufthansa to onboard them as strategic partner of Nepal Airlines, which remain in limbo as decision makers couldn't have courage to make it happen due to strong anti-lobbies and attempts of creating controversies (The Kathmandu Post, 2023). In the meantime, we've witnessed the Government of India had privatized its national flag carrier to TATA Group. India has made a greater stride in leveraging PPPs in infrastructure and services, that experience of India can be utilized in our context as well (World Bank, 2024).

### Capacity Development

Foreign Direct Investment (FDI) inflow in Nepal being a mere 0.4 per cent (including reinvestment) of the Gross Domestic Product (GDP) reflects our capacity constraints to serve the foreign investments with providing an enabling environment for investment (World Bank, 2023). Nepal must have a diagnostic study to identify the bottlenecks and ways to overcome those challenges. Primarily, we've to watch and develop a strategy how the competitor countries have been attracting FDI. PPP can be a powerful tool in attracting FDI, for which we require a sustained approach for improving the investment climate that would be favorable for foreign and domestic private sector. Agencies like Investment Board Nepal can conduct the diagnostic study which can trigger the reforms in investment climate under which the foreign and domestic private sector convinced on the risk sharing modalities. There are various approaches already brought into various countries including neighboring India to develop risk sharing modalities.

In conclusion, policy makers must keep in the mind that the private sector seeks 3Cs—(policy) clarity, consistency and continuity. The role of Investment Board Nepal, Nepal Rastra Bank and Department of Industry (under the Ministry of Industry, Commerce and Supplies) have to play critical role to promote investments under different modalities to leverage the PPP. Identification of leading sectors and attracting investments in these sectors of comparative and competitive advantage will be stone step to take a leap.

### References


Government of Nepal. (2019). Public Private Partnership and Investment Act. Singhadurbar. Kathmandu: Government of Nepal. Retrieved from https://ibn.gov.np/uploads/documents/ public-private-partnership-and-investment-act- ppp-and-investment-act-2019pdf- 1483-330- 1657605913.pdf

Investment Board Nepal. (2023). Investment Board Nepal Annual Report 2022/23. Kathmandu: Office of the Investment Board of Nepal.

National Planning Commission. (2024). Sixteenth Plan (FY 2024/25–2028/29). Kathmandu: National Planning Commission.

TechTarget. (2024). Public-private partnership (PPP). Delhi, India .

The Kathmandu Post. (2023). Privatization of Air India: Lessons for Nepal. Kathmandu: The Kathmandu Post.

World Bank. (2023). Benchmarking Infrastructure: Nepal Country Profile. Washington D.C.: World Bank Group.

World Bank. (2024). PPP Knowledge Lab. Washington D.C.: The World Bank Group.

GLOBAL PERSPECTIVES ON PPP

# International Best Practices and Lessons for Nepal

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Public-Private Partnerships (PPPs) solve financial, efficiency, and innovation issues in global infrastructure development. Public-private partnerships handle fiscal limits, urbanisation, and infrastructure issues with private sector knowledge, innovation, technology, and money. The 2023 global PPP investment was $86.0 billion, 0.2% of low- and middle-income nations' GDP. Though down from $91.3 billion in 2022, its value is above the five-year average of $85.5 billion (World Bank, 2023). Energy investments rose in 2022, mainly in East Asia Pacific. China and India's road development declined, but port spending surged. Water and municipal solid waste investment fell while ICT spending rose to $7.8 billion over 52 projects in 35 countries (World Bank, 2023).

Since the 1990s, Nepalese PPP initiatives have formed a systematic and institutionalised development framework. Despite problems, Nepal features a cooperative structure that blends government goals with private sector knowledge and investment. Nepal uses public-private partnerships in energy, transportation, healthcare, education, and tourism. This article discusses worldwide PPP trends, best practices for structuring PPP agreements, successful PPP project case studies, essential lessons from international PPP practices relevant to Nepal, and how to adapt these tactics to Nepal.

**Global Public-Private Partnership Implementation and Management Trends**

Global public-private partnerships are changing due to innovative finance, resilience, sustainability, digitisation, risk mitigation, and social advantages. Governments support flexible, open, long-term public-private partnerships that meet public needs. Covid-19 necessitates sturdy infrastructure. Countries that manage and execute public-private partnerships can build vital public infrastructure with private sector investment and expertise.

**Sustainable public-private partnerships:**

Climate change awareness spurs green infrastructure. Businesses and governments are lowering carbon emissions, improving the environment, and investing in SDG-aligned infrastructure. Several instances:

- **Green financing:** ESG-based PPPs evaluate and implement projects. Green bonds and sustainable financing fund green energy, buildings, and transportation.
- **Climate resilience:** Build flood-resistant roads, water, and buildings.
- **Carbon neutrality:** Many nations require PPPs for carbon neutrality. Net-zero emissions are achieved by public-private partnerships using electric buses, solar energy, and energy-efficient equipment.
- **Digitisation, smart infrastructure:** Infrastructure projects employ more digital technology. Public-private partnerships are advancing smart cities, digital services, and data-driven infrastructure worldwide. Key elements:

    - IoT and public-private collaborations improve smart city traffic, utility, and public transportation management. The government manages these projects, while private companies create and contribute technology.
    - Digital payment systems: Public-private partnerships simplify and lower mobile transit and utility bill payments.
    - AI and data analytics improve global resources. Public-private partnerships are integrating smart grids and water meters into energy and water management systems to improve efficiency, waste, and services.

**Focus on Risk Distribution and Adaptive Contracts:**

- Successful public-private partnerships (PPPs) require good risk management, and global trends indicate decreased risk allocation flexibility. Random occurrences like COVID-19, legislative changes, and economic downturns affect risk-sharing.
- Risk mitigation: Pandemics and political instability could disrupt PPP operations. Hence, governments are contemplating force majeure provisions. Private companies obtain investment risk reduction guarantees.

**Performance Based Contacts and Value for money**

- Performance-based contracts with rewards and punishments are used in many PPP projects. These contracts encourage commercial partners to meet quality, cost, and delivery goals.
- PPPs emphasise VFM analysis to ensure value for money. This trend estimates project cost-effectiveness and long-term fiscal implications using life-cycle costs and benefits, notably in public infrastructure.

**Financing and Capacity buildings of PPPs**

- Increase multilateral and global aid: Developing nations are seeing more involvement from the World Bank, ADB, and EIB. These groups assist public-private partnerships with financing, technical assistance, and risk assurance. Public and private funding increasingly fund public-private cooperation. Many multilateral development banks use concessional (usually public) and commercial finance to attract private investment in riskier industries like renewable energy and affordable housing.
- Capacity building and consulting: Public-private partnerships demand worldwide technical expertise. Standardising PPP contracts, improving regulatory frameworks, and increasing local capacity to handle complicated enterprises are needed.

**Social Impact and Inclusive Development**

- Greater focus on social impact and inclusive development: PPPs promote inclusive growth and social justice. This shows a growing awareness of infrastructure's role in social welfare and inequality reduction. Countries use public-private partnerships for affordable housing, healthcare, and education. These projects increasingly target neglected or underprivileged populations to disperse infrastructure advantages evenly.
- Local demands and services require small-scale public-private partnerships. They must promote the SDGs in different contexts since they are more responsive to regional challenges.

**Economic and Community Development**

- Local economic development: Governments encourage public-private partnerships that provide jobs, skills, and community benefits. To boost economic growth, they set local employment, training, and procurement goals for these partnerships.
- Community engagement: PPPs increasingly consider local communities. To succeed, public-private partnerships must involve local stakeholders in project planning, design, & monitoring.

**Post-Pandemic Transformation of PPPs**

- Public-private partnerships reviewed after COVID-19: COVID-19 has changed global infrastructure development and public service policies, redefining public-private partnership goals. Hospitals, testing centres, and vaccination supply networks are built well with public-private partnerships after the pandemic. Public-private collaborations improve healthcare and disaster preparedness in many nations.
- Public-private collaborations boost post-pandemic growth. Many governments invest in digital infrastructure, logistics, and sustainability to boost economic resilience. The pandemic has made PPPs more agile, allowing faster adoption and responsiveness to disruptions. Due to global events, governments desire more PPP project design, delivery, and administration flexibility.

**International Best Practices in Structuring PPP Agreements**

Good contracts are clear and reassuring. PPP contracts cannot predict future events because of their length, risk, and complexity. The PPP contract must be flexible to avoid renegotiation or termination due to changing conditions. PPP contracts strive to eliminate uncertainty for both parties by offering confidence and controlled flexibility. Setting clear change parameters does this. Global PPP agreement best practices affect project success, risk allocation, and public benefits. The global best practices suggested to be included are as follows.

**Suggestions from Best Practices**

**Risk distribution:** Clear managerial risk distribution between public and private firms. Sydney Cross City Tunnel Project contracts in Australia shared income risk. In case traffic was significantly lower than predicted, the government funded the project (Chan, Lam, Chan, & Cheung, 2008). Overestimating demand costs the private sector in South Africa's Gautrain Rapid Rail PPP. Hence, the government should prevent excessive distribution (Turner and Townsend, 2025).

**Unexpected events:** Both parties' obligations and force majeure, like pandemics or natural calamities, must be described. The Dubai Metro PPP Project contract allowed suspension, renegotiation, or termination if force majeure lasted longer than projected (Prestige, Kotb, & Roberts, 2019).

**Termination:** Contracts should include termination, default, and compensation clauses to avoid disputes. South Africa's Gautrain Rapid Rail Link Project calculated termination compensation. For financial certainty, it included government termination for convenience, contractor failure, and force majeure.

**Resolution of Conflict:** The contract requires mediation, expert determination, and planned arbitration. Singapore Sports Hub PPP went from calm debate to expert determination to SIAC-governed final arbitration[5].

**Legal aspects:** The contract must provide legal change management, such as cost-sharing or renegotiation. The London Underground PPP contracts included a cost-sharing clause and a payment adjustment formula if legislative changes affected the private partner's operating expenses or income (Porcher, 2022).

**Social and environmental protection:** Meet environmental and social standards. The Ugandan Bujagali Hydropower PPP required the private enterprise to conduct environmental impact studies and resolve community relocation issues under independent auditor oversight (Kabanda, 2014). These ideas are part of the UNECE's green and sustainable public-private partnership procurement agenda (Bureau: Economic Commission for Europe, 2024).

**Revenue reallocation and change:** Negotiating financial changes after large revenue swings. Toll road concessions in Chile included revenue adjustment. To maintain financial stability, traffic-based toll rates or concessions were modified (Babbar, Barrientos, & Lorenzen, 2001).

**Contract clause standardisation:** The World Bank Group's "Guidance on PPP Contractual Provisions, 2019" covers force majeure, legal changes, termination compensation, and dispute resolution (International Bank for Reconstruction and Development, 2019). This program standardises requirements nomenclature to accelerate development and minimise PPP costs. The Indian Ministry of Finance's Department of Economic Affairs has created standard PPP contracts. Model concession agreements for national highways, urban rail transit, transmission lines, and greenfield/brownfield hospitals (Ministry of Finance, 2016-2023).

### Global PPP Success Stories

Many global PPPs have efficiently and creatively provided infrastructure and services. The following successful PPP projects demonstrate how government control and private sector expertise and investment deliver infrastructure on time and within budget. Each endeavour struggled with money, legal frameworks, and community acceptability, crucial to future PPP collaborations.

### Lagos Blue Line Light Rail Project

*(Lagos Metropolitan Area Transport Authority, 2022; Wikipedia, 2023; Ologunagbe, 2022; Otunola, Kriticos, & Harman, 2019)*

The massive Lagos Blue Line Light Rail project promises to reduce traffic in Nigeria's business capital. A high-capacity rapid transport link between Lagos' major cities is planned. This PPP is financed, developed, and operated by the China Civil Engineering Construction Corporation (CCECC), with regulatory oversight by the Lagos State Government. An estimate in 2015 started it. $1.5bn investment. Phase 1 is 13 km from Marina to Mile 2. Phase two will link Ikeja and other vital areas. The project dramatically reduced traffic in Lagos, Africa's traffic hub. Growth in worker commutes, local business support, and investment has boosted the economy. For full light rail operation, about 500,000 people daily are expected. Financial and logistical issues have hindered progress, although the initiative has global private sector interest.

### New Karolinska Solna Hospital, Sweden

*(Nordic Investment Bank, 2010; Elematic, 2025; EXEC, 2009; Ijeh, 2014; Nuclear, 2024)*

Stockholm's $2 billion New Karolinska Solna Hospital is Europe's largest public-private healthcare partnership. Old hospitals will be replaced with new ones with improved services and research. PPP ensures hospital completion on time, budgetary compliance, and cutting-edge medical technology. Skanska, Siemens, and other contractors are commercial partners, while Stockholm County Council is government. In 2016, activities began under the 2010 agreement. Skanska funded and built the hospital, but Siemens provided medical tech. After a long period of financing and management, the private partnership transferred the facility to the public sector via Build-Operate-Transfer (BOT). To demonstrate modern treatment, the hospital has set new standards for Swedish healthcare. The public sector benefited from private sector knowledge, money, and fast delivery without capital outlay. A cutting-edge, energy-efficient medical research complex was built using PPP. Costs exceeded estimates, causing major concerns. Operating duties were hard to transfer.

### International PPPs' Lessons for Nepal

Nepal can improve its PPP implementation by studying other nations' successes.

**Strong laws and regulations encourage private investment.** Nepal needs a PPP law, unit, bidding, contract, and dispute resolution systems.

**Risk Distribution.** Risk perception slows Nepal's infrastructure. Fair risk sharing and interest alignment can boost Nepalese private sector engagement. The government can decrease demand risk and private enterprises can assume building risk via secured payment systems.

**Capacity Building.** Project success requires skilled public and private sector staff. Nepal must teach government and private sector collaborators contract administration and project execution to strengthen public-private partnership management.

PPP effectiveness in Nepal hinges on selection, cost estimation, and operational audit openness. Transparency prevents PPP corruption.

### Applying Global Practices in Nepal

These suggestions apply global PPP best practices to Nepal:

1. ***Improve Legal and Institutional Frameworks:*** The Public-Private Partnership and Investment Act (2019) should be revised to address existing ambiguities and align with international standards. The framework must clearly define roles, procurement methods, dispute resolution mechanisms, and legal obligations for both parties.
2. ***Create a central PPP unit:*** A well-funded, professional PPP unit should manage, coordinate, and create federal, provincial, and local capabilities.
3. Clear deadlines and decision-making authority reduce bureaucracy and approval delays.
4. ***Improve financial sustainability:*** Section 43(1) of Nepal's

PPP and Investment Act (2019) provides for a Viability Gap Fund (VGF) to support essential infrastructure projects with long-term value but limited immediate returns. However, implementation has been slow. Drawing from India's operational VGF model, Nepal should activate this provision by defining clear guidelines, enabling funding mechanisms, and targeting socially beneficial sectors like health, sanitation, and rural infrastructure.

5. ***Fix capacity issues:*** PPP structuring, negotiation, and project management training for government and business leaders. Standards should be used for contracts, risk allocation, and procurement to improve efficiency.
6. Increase risk distribution and oversight as well as provide equitable risk distribution to balance public and private risks in PPP contracts.
7. Guarantees against regulatory changes or political engagement reduce political and regulatory risks.
8. ***Promote Transparency and Accountability:*** Digital dashboards for real-time monitoring of procurement, disbursements, and implementation can deter corruption and promote public trust. Regular third-party audits and stakeholder consultations will further reinforce governance.
9. Online solutions improve accountability by tracking project progress, procurement, and money.
10. Trust needs continuous stakeholder involvement with affected communities and civil society organisations.
11. ***Focus on key sectors:*** Infrastructure: Prioritise highways, airports, hydropower, and cities. Tourism and agriculture: Improve these critical industries with Nepal's natural and cultural resources in public-private partnerships.
12. ***Use global and regional best practices:*** Nepal should learn from successful regional models such as those of India, Bangladesh, and Malaysia. Participation in global forums, technical exchanges, and collaboration with development partners will help Nepali officials remain up-to-date with evolving global standards and financing models.

Nepali PPPs must holistically apply global best practices to local realities. Public-private partnerships can help Nepal improve infrastructure and public services by learning from other countries and meeting its needs. This boosts economic growth and social welfare.

**References**


Babbar, S., Barrientos, M. E., & Lorenzen, C. C. (2001). *Toll road concessions : the Chilean experience (English).* World Bank. Washington D.C.: The World Bank Group. Retrieved from http:// documents.worldbank.org/curated/en/360561468230102302

Bureau: Economic Commission for Europe. (2024). Guidelines on green and sustainable procurement of Public Private Partnerships for the Sustainable Development Goals. *Working Party on Public-Private Partnerships. 8.* Geneva: United Nations Economic and Social Council. Retrieved from https://unece.org/sites/default/files/2024-11/ECE_CECI_WP_PPP_2024_05-en.pdf

Chan, A., Lam, P., Chan, D., & Cheung, E. (2008). Risk-Sharing Mechanism for PPP Projects – the Case Study of the Sydney Cross City Tunnel. *Surveying and Built Environment, 19*(1), 67-80.

Coliseum. (2022, August 05). *Singapore Sports Hub change of guard*. Retrieved from Coliseum News: https://www.coliseum-online.com/singapore-sports-hub-change-of-guard/

Elematic. (2025). *Landmark on a mission – Nya Karolinska Solna project*. Retrieved from Elematic Oyj: https://www.elematic.com/concrete-issues/landmark- on-a -mission -nya-karolinska-solna-project/#:~:text=Thanks%20to%20the%20Nya%20Karolinska,development%20and%20construction%20group%20Skanska.

EXEC. (2009, November 09). A Glimpse of Healthcare's Sustainable Future: New Karolinska Solna Hospital,Sweden. *Health Management, 11*(5). Retrieved from https://healthmanagement.org/c/hospital/issuearticle/a-glimpse-of-healthcare-s-sustainable-future-new-karolinska- solna-hospital-sweden

Government of Nepal. (2015). *The Constitution of Nepal.* Kathmandu: Ministry of Law, Justice and Parliamentary Affairs, Law Book Management Committee.

Government of Nepal. (2019). *Public Private Partnership and Investment Act, 2019.* Kathmandu: Government of Nepal.

Ijeh, I. (2014, February 26). Building Sweden's New Karolinska Solna hospital. *The Building Boardroom*. Retrieved from https://www.building.co.uk/ focus/building-swedens-new-

karolinska-solna-hospital/5066529.article
International Bank for Reconstruction and Development. (2019). *Guidance on PPP Contractual Provisions (2019).* Washington D.C.: Publishing and Knowledge Division, The World Bank Group.
Kabanda, U. (2014, June 21). A Case Study of Bujagali Hydropower Public Private Partnership Project Between Uganda Government and Bujagali Energy Ltd in Electricity Generation in Africa. *American Scientific Research Journal for Engineering, Technology, and Sciences, 8*(1), 1-13. Retrieved from https://asrjetsjournal.org/index.php/American_Scientific_Journal/article/view/507
Lagos Metropolitan Area Transport Authority. (2022). *Lagos Rail Mass Transit (LRMT) - Blue Line.* Lagos Metropolitan Area Transport Authority, Climate and Health. Union Internationale des Transports Publics. Retrieved from https://www.uitp.org/case-studies/lagos-rail-mass-transit-lrmt-blue-line/
Ministry of Finance. (2016-2023). *Home-Public private partneships in India. (n.d.). https://www.pppinindia.gov.in/model_concession_agreement.* Department of Economic Affairs. New Delhi : Ministry of Finance. Retrieved from https://www.pppinindia.gov.in/model_concession_agreement
Nordic Investment Bank. (2010, October 20). New Karolinska to become one of the world's most advanced hospitals. Retrieved from https://www.nib.int/cases/new-karolinska-to-become-one-of-the-worlds-most-advanced-hospitals
Nuclear. (2024). *Future of Construction - New Karolinska Hospital Case Study.* New York, USA: World Economic Forum.
Ologunagbe, O. (2022, December 23). *What you need to know about Lagos Blue Line Rail*. Retrieved from Business Day: https://businessday.ng/business-economy/article/what-you-need-to-know-about- lagos-blue-line-rail/
Otunola, B., Kriticos, S., & Harman, O. (2019, October 28). The BRT and the danfo: A case study of Lagos' transport reforms from 1999-2019. *International Growth Centre*. Retrieved from https://www.theigc.org/sites/default/files/2019/10/lagos-BRT-case-study.pdf
Porcher, S. (2022). A Case Study of the London Underground's PPP failure. *Université Paris Dauphine*. doi:https://dx.doi.org/10.2139/ssrn.3597476
Prestige, G. H., Kotb, S., & Roberts, N. (2019, May 02). *Construction and projects in United Arab Emirates: overview.* (B. McKenzie, Editor) Retrieved from Global Arbitration News: https://www.globalarbitrationnews.com/2019/05/02/construction-and-projects-in-united-arab-emirates-overview/#:~:text=There%20are%20also%20187%20active,a%20total%20value%20of%20USD4.
Turner and Townsend. (2025). *Gautrain Rapid Rail Link.* Public-Private Infrastructure Advisory Facility (PPIAF), Global Infrastructure Hub. The World Bank Group. Retrieved from Global Infrastructure Hub (GI Hub): https://managingppp.gihub.org/case-studies/gautrain-rapid-rail-link/
Wikipedia. (2023, January). *Blue Line (Lagos Rail Mass Transit)*. Retrieved February 1, 2025, from Wikipedia: https://en.wikipedia.org/wiki/Blue_Line_(Lagos_Rail_Mass_Transit)
World Bank. (2023). *Private Participation in Infrastructure (PPI): Annual Report.* Washington D.C.: The World Bank Group. Retrieved from https://ppi.worldbank.org/ content/dam/PPI/documents/PPI-2023-Annual-Report-Final.pdf

DEMYSTIFYING PPP

# Definition, Scope, modalities of PPPs, and Misconceptions

Public-Private Partnerships (PPPs) have emerged as a dynamic instrument for infrastructure development and public service delivery across the globe. In the context of Nepal's development aspirations and resource constraints, PPPs offer a pathway to mobilize private capital, transfer risk, and enhance service efficiency while safeguarding public interests. However, despite increasing recognition, misunderstandings and ambiguities surrounding PPPs persist. This article aims to clarify the concept of PPPs, their modalities and scope, and dispel common misconceptions to support more informed decision-making and stakeholder engagement.

**Defining PPPs**

Public-Private Partnerships (PPP) are long-term contractual agreements between a private party and a government entity, where the private party assumes significant risk and management responsibility in providing a public asset or service. The remuneration of the private party is performance-linked, and PPP can involve new or existing assets and services. Payments may come from service users or government agencies. A key feature of PPPs is the alignment of private interests with the public interest, distinguishing them from Private Sector Participation (PSP) and privatization (Asian Development Bank, 2008).

PSPs are similar to PPPs but differ in the scope of benefits and risk responsibilities shared. Unlike PPPs, PSP frameworks shift responsibilities more to the private sector, focusing less on collaborative partnerships. Privatization involves selling government-owned shares or assets, often in sectors like infrastructure or utilities, with regulations addressing social and policy concerns. The term PPP emerged in the mid-1990s to address ambiguities and overly ambitious schemes that neglected social agendas under privatization or PSP.

According to the Asian Development Bank (ADB), PPP frameworks engage the private sector while ensuring government roles in meeting social obligations and achieving sector reforms and public investments . A robust PPP framework effectively distributes responsibilities and risks between public and private participants. Public partners typically include government entities, while private partners can be local or international businesses or investors. NGOs and community-based organizations (CBOs) may also be involved in representing stakeholders impacted by the project.

**Modalities of PPP**

The World Bank identifies different PPP contract types based on three broad parameters: type of assets involved, functions the private party is responsible for, and how the private party is paid. PPP can be categorized on different basis as outlined below:

On the Basis of Assets (World Bank, 2017)

A *Greenfield* project refers to a project that is developed from scratch on a vacant or undeveloped site. It involves starting with a clean slate, often on raw land where there is no existing infrastructure or development.

*Brownfield* projects involve redeveloping or repurposing an existing site that may have been previously used for industrial or commercial purposes. These sites may have existing infrastructure, buildings, or facilities that need renovation, cleanup, or demolition before new development can take place. Nepal allows both greenfield and brownfield investments, and most applicable approvals below are related to new industries. For brownfield investments there is one requirement, the need to obtain approval from the central bank to bring the investment.

*Yellow-field* projects involve sites that are partially developed or underutilized but not entirely vacant. It implies that there is some existing infrastructure or facilities in place that can be repurposed or expanded upon for a new project. Yellowfield projects can offer a balance between the advantages of Greenfield and Brownfield projects, as they involve some level of existing development but still allow for substantial changes and expansion.

On the Basis of Payment Provider (World Bank, 2017)

Under *user-pays PPP*, like toll roads, the private party collects fees from users for their service. Government might also provide extra payments, like subsidies for construction or services for low-income users. These payments are usually contingent on delivering the service at an agreed quality level by only the direct users. However, non-users benefit from the infrastructure as well through social returns, such as, non-users may benefit from increasing real estate prices due to the development near the infrastructure and play the role of free-riders.

Under *government-pays PPP*, the government is the sole source of payment for the private party. Payments can be based on service availability (availability payments) or the volume of services delivered to users, like payments for hospital care defined under the contractual agreement. The payment structures may even combine and work together, although it must be noted that the payment mechanism should be structured in such a way that the net remuneration of the private party is linked to performance.

As listed by the PPPIA 2019 (Investment Board Nepal, 2019)

Apart from the criteria set by the world bank, GoN also has taken steps towards identifying modalities of PPP in Nepalese Context through its legislations. The PPPIA 2019 states that any project related to infrastructure structure may be carried out through the following modalities of PPP: *Build and Transfer(BT); Build, Operate and Transfer (BOT); Build, Own, Operate and Transfer (BOOT); Build, Transfer and Operation (BTO); Lease Operation and Transfer (LOT); Lease, Build, Operation and Transfer (LBOT); Development, Operation and Transfer (DOT); Management, Operation and Transfer (MOT);* & *Rehabilitation, build and Transfer* or any other similar method (Investment Board Nepal, 2019).

**Functions of PPP**

PPP projects involve various functions depending on the asset or service. These functions are:

*Design:* The *design* function involves developing the initial concept and output requirements of the project adhering to construction design specifications.

*Build:* The *build* function for the private party associated is defined by the nature of assets involved. For new infrastructure assets, private parties are responsible for overall construction of assets and installation of complete equipment. For existing infrastructure, the private party is responsible for the *rehabilitation* and *extension* of the asset.

*Finance:* The *finance* function describes the form of financing structure ensued in developing the project. The forms of financing used in PPP development projects are non-recourse project financing, full recourse project financing and limited recourse project financing.

*Operate:* The *operate* function occurs after the project is completely built and the operation inside the infrastructure starts. The function may be provided by the private company either in bulk-service to the government or the services may be provided directly to users; apart from these two forms of operations support services may be provided by the private firm with core service being provided by the government agency.

*Maintain:* The *maintenance* function requires the private entity to ensure the project-resulted infrastructure remains in the specified standard of quality over the life of the contract.

*Transfer:* Under many PPP projects, private entities assume the *ownership* of the infrastructure services for a specified contract period which generally include the design, build and maintain period. Under *transfer* function, in such instance, after the contract period of PPP project the ownership is supposed to be *transferred* from the private institution to the public institutions.

**Financing PPPs**

Further, magnifying on the finance function PPP may be further categorized into non-recourse financing, full-recourse financing and limited recourse financing. The recourse of financing is controlled by the set-up of a central unit known as SPV(special purpose vehicle). The SPV secures funding through a mix of equity from its shareholders and debt from banks, bonds, or other financial sources. The finance structure involves how the equity and debt are combined and the agreements between the equity holders and lenders.

*Non-recourse project financing* is a type of funding arrangement commonly used in large infrastructure or development projects. In this financing structure, the lender primarily relies on the project's cash flow and assets as collateral.

*Full recourse project financing*, on the other hand, is a financing arrangement where the lender has broader recourse beyond the project's assets and cash flow. If the project defaults on the loan, the lender can pursue the personal assets of the project sponsors or investors to recover the debt.

*Limited recourse project finance* is a financing approach commonly used in complex projects where the lender's ability to recover their investment is restricted primarily to the project's assets and revenue. In this arrangement, if the project defaults on the loan, the lender's recourse is limited to the project's collateral, and they can only limitedly pursue the personal assets of the project sponsors or investors (World Bank, 2023).

Investors generally favour limited recourse because it confines their exposure to the project's risk to the equity, they've invested in the SPV company. While the cost of borrowing money may be higher, the level of risk is well-defined and limited.

**Scope of PPPs in Nepal**

Public-Private Partnerships (PPPs) in Nepal are used to develop infrastructure and public services, and can include a variety of sectors (Nepal, 2024):

**Infrastructure**: PPPs can be used to develop roads, bridges, airports, railways, and other infrastructure.

**Energy**: PPPs can be used to develop and distribute renewable energy, including hydroelectric, biomass, solar, thermal, and geothermal energy.

**Health**: PPPs can be used to develop telemedicine networks, digital health platforms, and mobile health clinics. They can also be used to improve the supply chain and distribution of medical supplies.

**Education**: PPPs can be used to improve education. Vocational training and digital education platforms can be developed around PPP model.

**Solid waste management**: PPPs can be used to improve solid waste management, water supply, and smart city initiatives.

PPPs can be beneficial for governments because they allow them to access additional capital and technical expertise from the private sector. The government can also share the burden of financing and management with the private sector. The investment board Nepal provides analysis of different sectors for opportunities of PPP investments in Nepal. The 2015 PPP Policy and PPPIA 2019 Act are major legislations towards encouraging PPPs in Nepal. The Investment Board Nepal (IBN) works with the National Planning Commission (NPC) to promote PPPs and increase the government's ability to enable them. IBN uses a process to select investors for PPP projects, including an expression of interest (EOI) and a request for proposals (RFP).

**Misconceptions about PPP**

Here are a few common misconceptions about Public-Private Partnerships (PPPs), including:

**PPPs are privatizations:** PPPs are different from privatizations, which involve the permanent transfer of an asset to the private sector. In a PPP, the government usually remains the legal owner of the asset (Investment Board Nepal, 2025).

**PPPs are only for large-scale projects:** PPPs can be used for a variety of projects. PPPs in Nepal have been successfully implemented in many small-scale projects such as in the areas of urban development, agriculture, education and others. For smaller projects, PPPs can bring innovation, private sector expertise, and operational efficiency that may not be available within the public sector (Bhatta, 2019).

**The government provides guarantees to PPP projects:** The government doesn't necessarily provide guarantees to PPP projects. In many new modalities of PPP there is risk sharing mechanism between private sector, public sector and government based on revenue, time and performance (Investment Board Nepal, 2025).

**PPPs are more expensive than other procurement options:** PPPs can be more cost-efficient than other options when considering the project's lifecycle cost. However, the misconception is understandable due to the complex negotiation procedures in PPP projects which lead the schedule lengthening and delays. However, rather than the nature of PPP the major issue lies around the planning and structuring of PPP contracts. Hence understanding the objective of PPP projects and aligning the contract to the project goals and stakeholder needs is the major need.

**A private company owns the infrastructure asset:** The public maintains ownership of the assets in a PPP, and the public authority sets rates. This distinction is critical, as PPPs are structured to blend private sector involvement with public sector accountability, but the ultimate responsibility and ownership of infrastructure assets often rest with the public sector. Although for the course of contract the ownership lies with the private company it is reverted back to the public sector post the contract period.

**PPPs are the solution to countries in crisis:** PPPs aren't necessarily the solution to countries in crisis. While Public-Private Partnerships (PPPs) may offer a viable approach for addressing infrastructure and service delivery challenges, particularly during fiscal crises, they are not a panacea. Risks and limitations inherent to this model make it crucial to consider PPPs as part of a broader strategy rather than the ultimate solution. PPPs are effective when they are well-structured, transparent, and focused on delivering public value rather than simply reducing immediate government spending. Governments must approach PPPs with caution, leveraging them strategically while acknowledging and managing their inherent risks.

Overcoming Misconceptions to PPP implementation

While misconceptions about PPPs have posed certain limitations, they also highlight critical areas where Nepal can strengthen its PPP ecosystem through targeted interventions and reforms:

***Opportunity to Enhance Project Preparation:*** Strengthening technical capacity in project identification, risk assessment, commercial viability analysis, and stakeholder engagement can significantly improve the quality and bankability of the PPP project pipeline.

***Building Clearer Engagement Frameworks for Investors:*** By aligning expectations and offering well-defined, transparent rules of engagement, Nepal can attract more committed and capable domestic and international investors who are eager to participate in sustainable infrastructure development.

***Advancing Policy Streamlining and Timely Approvals:*** Encouraging inter-agency coordination and improving clarity in approval processes can reduce procedural delays, build investor confidence, and accelerate project implementation.

***Automating Local and Provincial Governments:*** Supporting municipal and provincial governments with technical assistance, model contracts, and awareness-building efforts can foster confidence and enable decentralized adoption and automated implementation of PPP models tailored to local development needs.

***Promoting Institutional Learning and Replication:*** Every well-executed PPP project offers valuable lessons. Systematizing knowledge sharing and learning from pilot initiatives can help institutions refine frameworks, scale successful models, and build long-term capacity for more effective PPP engagement.

**References**


Asian Development Bank. (2008). *Public-Private Partnership Handbook*. Manila, Philippines: Asian Development Bank. Retrieved from https://www.adb.org/sites/ default/files/institutional-document/31484/public-private-partnership.pdf

Bhatta, S. (2019). Public-Private Partnerships in Nepal: Country Paper. Nepal: United Nations Economic and Social Commission for Asia and the Pacific.

Investment Board Nepal. (2019). *Public Private Partnership and Investment Act, 2019.* Kathmandu: Law Books Management Board. Retrieved from https://ibn.gov.np/uploads/documents/public-private-partnership-and-investment-act-ppp-and-investment-act-2019pdf-1483-330-1657605913.pdf

Investment Board Nepal. (2025). *PPP and Private Projects*. (Government of Nepal) Retrieved February 02, 2025, from IBN - FAQs: https://ibn.gov.np/ibn-faq/ppp-and-private-projects-8691

Nepal, P. (2024). Opportunities and Challenges of Public-Private Partnerships in Nepal. *International Research Journal of Parroha Multiple Campus, 3*(1), 13-19. doi:http://dx.doi.org/10.61916/prmn.2024.v03i01.002

World Bank. (2017). *PPP Reference Guide - PPP Basics.* World Bank Group, PPP Resource Center. World Bank Group. Retrieved from https://ppp.worldbank.org/sites/default/files/2021-08/PPP%20Reference%20Guide%20Version%203%20-%20PPP%20Basics.pdf

World Bank. (2023). *Benchmarking Infrastructure Development 2023: Country Profile – Nepal.* Washington D.C.: World Bank Group. Retrieved from https://bpp.worldbank.org/content/dam/sites/data/bpp/cntrypdf/BI-2023-Nepal-PPP.pdf

# “PPP is the bridge to close Nepal’s infrastructure gap and realize our development vision”

MR. BISHNU PRASAD PAUDEL
Hon’ble Deputy Prime Minister and Minister for Finance

**Hon'ble Deputy Prime Minister and Finance Minister, Mr. Bishnu Prasad Paudel brings wealth of experience in public finance management and shaping investment policies. A prominent political figure, he is also the Vice Chairperson of the Communist Party of Nepal (Unified Marxist–Leninist). This marks his fourth stint at the Ministry of Finance since 2015. He previously held the portfolio in 2015, 2020 and 2022; prior to be appointed as the Deputy Prime Minister and Finance Minister in 2024. Over the course of his political career, he has also served as Minister for Energy; Minister for Defense; and Minister for Youth, Sports, and Culture. His journey as a Cabinet Minister began in 1997 with his appointment as Minister for Youth, Sports, and Culture. As Finance Minister, Paudel has presented three national budgets. His economic policies are considered liberal, focused on macroeconomic stability, and supportive of the private sector, particularly investors. In a conversation with PPP Paradigms, Paudel shared his insights as follows:**

**How do you see the role of finance in helping Nepal build better infrastructure and move toward long-term economic development?**

Nepal requires a huge investment in infrastructure in the view of yawning gap of infrastructure. It requires to invest at least 10 to 15 percent of the GDP till 2030 to achieve the accelerated growth backed by the strong production base. Currently, we’re are facing a gap of financing and capacity to implement infrastructure projects. To fulfill the gap, we have to attract private sector—both domestic and foreign— investments. The 16th plan has envisioned to mobilized overall Rs. 9482.66 billion investments, including from private sector. Investment in infrastructure will create jobs, boost production, increase economic activities and instrumental in achieving the long-term goal of Prosperous Nepal, Happy Nepali. For this, we need to build physical, digital and social infrastructures for the holistic development of the country. Government investment alone is insufficient to achieve these development goals, considering the fact, the government has provided enabling environment for mobilizing the private sector investments.

**In recent budgets, capital spending has been a major focus. What steps is the Ministry of Finance taking to make sure this money is used properly, and projects are completed on time?**

The government has been providing a special focus to improve the capital expenditure through addressing our capacity gaps in project administration and contractors. The legal and procedural challenges will be addressed properly. Mainly, we're improving the capital expenditure through allocation efficiency and implementation capacity. The government has cutdown 4,654 piecemeal projects, not only to minimise uneconomic spendings but also to enhance the efficiency of project execution. Preparatory works of the projects will be carried out before starting the project execution. As announced by the budget 2025/26, Public Procurement Laws will be amended and e-bidding system will be enhanced to expedite development projects. Moreover, the government has barred transfer of funds except to the national pride projects and top priority projects in a specific condition. Performance monitoring of the development projects has been given due priority to improve development expenditure.

**Raising enough money within the country is always a challenge. What efforts are being made to improve tax collection and other domestic resources to finance development?**

Ministry of Finance has been giving due focus on expanding tax coverage and avoiding leakage in the revenue system. We are also working on mobilizing domestic resources in infrastructure projects that secure high returns. Broadening tax -base and leakage control help to increase tax collection of the government. Further, the government raise domestic debt as one of the major sources for budget financing. Apart from this, we encourage the social security fund mobilisers to invest in the viable infrastructure projects. On top of that, we've created an enabling environment to mobilise private sector's investment in infrastructure through public-private partnership model.

**With limited government fund-based resources, what is your ministry strategizing to attract private sector investment, donor support, and other financing options for infrastructure?**

We are working on estabilishing alternative financing mechansim to fund infrastructure development where private and foreign investors can invest. It is also kind of blended financing approach. We also focus on mobilizing all kind financial resources such as domestic and foreign including green finance. The Alternative Development Finance Mobilisation Bill has already been registered to parliament, which aims to attract private sector in public infrastructure development and mobilise resources through bonds, equity funds and other financing instruments. It is estimated that it requires at least Rs. 10,000 billion investments in infrastructure, however, the government's annual investment is merely Rs. 200-300 billion and alternative financing bill will give necessary impetus to mobilise resources.

**Many large projects face delays or low spending each year. What changes are being made to improve project planning, faster payments, and proper use of allocated funds?**

In Nepal, completion of project is taking long time thereby escalating cost of the projects. We have now introduced project bank concept to select the right projects. We are trying to allocate budget to ready to go projects. I hope this will help to improve capex spending next year. As announced by the budget 2025/26, the government will introduce standards for national pride projects, the procurement process will be initiated only after the preparatory works such as land acquisition and forest clearance among others and make the line ministry accountable for the capital expenditure. I believe this will improve the overall fiscal discipline.

**The new bill on alternative development finance [Alternative Development Finance Mobilization Fund-2025] has gained attention. Can you explain what this law aims to do and how it will help Nepal get more funding for development?**

This bill aims to mobilize financial resources from the wider perspective to fill the resource gap we feel for infrastructure development. It will pave the way for mobilizing private fund for infrastructure development. As I talked earlier, it has been conceptualized to arrange resources as targeted by our long-term vision and periodic plan. This will be established as autonomous fund with authorised capital of Rs 100 billion and paidup capital worth Rs. 25 billion as proposed. The government of Nepal will have a majority of share investment, 51% in this fund. And in the long run after other investors of the fund develop their capacity, the government shall gradually offload its share.

**Nepal's recent international credit rating [2nd best in South Asia] is a positive step. What plans does your ministry have to use this opportunity to bring in more international finance safely and effectively?**

Our credit rating score remains encouraging; it will help to mobilize capital abroad. The BB- rating for the first time has conveyed the very positive and strong message among investors that there is low investment risk in Nepal. Against this backdrop, we have to communicate the investment opportunities among the global investors and position Nepal as an attractive investment destination. Moreover, the alternative development finance bill will complement in bringing more international finance.

**As Nepal prepares to graduate from Least Developed Country (LDC) status, how is the Ministry of Finance adjusting its approach to maintain steady financing for infrastructure and growth?**

As I mentioned earlier, we are now giving focus on alternative finance rather than relying on tradition sources such as foreign grants which has been stagnant. After graduation from LDC, we will get low foreign grants, which has been already decling in recent years. Moreover, we may not get concessional loan after graduation. In this regard, we can minimise the lending rates by blending funds from multiple sources.

**Are there any recent financial policies or tools that you feel have worked particularly well and could be models for future projects?**

There are multiple polices for mobilising financing from the private sector. We already started using blended finance as model for investing in public infrastructure. Public Equity and Venture Capitals are also working in this front. Capital market is the most important space, that we've yet to utilise on its full potential. I emphasized on bond market development for mobilising resources for the economic development. Alternative Development Finance is another tool, and we are yet to examine the success of this. Moreover, the successful policies practiced internationally can be replicated based on the compatibility in the local context.

**Finally, what message would you like to share with development partners, private investors, and the younger generation about Nepal's financial readiness and development goals?**

Investment environment has been improving in Nepal and there are a lot of potentialities. The government has been focusing on further easing the investment environment. Hence, private sector and development partners should invest in Nepal. The private sector should be innovative and focus on developing entrepreneurship skill to youth

# Relevance and Importance of Public-Private Partnerships (PPP) for Nepal and UK Support

**Mrs. Pippa Bird is the Development Director at the UK's Foreign, Commonwealth and Development Office (FCDO) in Nepal. With 25 years in the UK Civil Service, she has led development efforts across Bolivia, Tanzania, Ethiopia, Somalia, Uganda, and Jordan. Her career spans work on fragility and conflict, governance, social development, and protracted crises. She has also completed secondments to the United Nations and the World Bank. She leads the Embassy's Economic Growth and Green Growth teams, overseeing flagship initiatives like Nepal in Business and Green Growth Nepal—aimed at job creation, private investment, and climate-resilient infrastructure. She brings a deep commitment to sustainable, inclusive development and effective partnerships.**

***Note: Under the leadership of Mrs. Pippa Bird, this article has been prepared by Economic Growth Team, British Embassy Kathmandu.***

Public-private partnership, commonly referred to as PPP, is an arrangement for involving the private sector in public projects. PPP allows projects, including large infrastructure, such as roads, bridges, hydro power projects, and hospitals, to be financed and built by the private sector on a risk and reward sharing basis. Many countries have used this model, but its use in Nepal is limited. Common examples of successful PPP projects include energy projects, high-way toll roads (not in Nepal so far), urban solid waste management, and public parking.

PPP is a useful model for building infrastructure because governments have limited resources and have competing demands. They cannot fund all public needs and government priorities alone. Tapping into private funds is a way out. Globally, the private sector funds 70% of infrastructure (OECD, 2018). In Nepal's case, public debt has been rising and stands at just over 40% of GDP (Ministry of Finance, 2024). Government of Nepal's budget deficit is also on the rise. Revenue sources are limited, primarily relying on tax on imports and VAT. So far, most large infrastructure has been funded by the government through the annual budget. Given rising debt as well as the significant investment needed to harness Nepal's hydro potential, the government has been looking for alternate ways to fund infrastructure projects— the PPP model is a good alternative.

The key word in PPP is partnership. The private sector brings financing, management, technology and other expertise, along with money, while the government - whether federal, provincial or a municipal - can also add capital, provide land and other incentives for projects. For the private sector, the projects need to be financially viable, meaning they can make a reasonable profit in return for the risk they have taken and capital they have deployed. So it is critical for any PPP agreement to get the risk and reward sharing part right and be clearly defined in the agreement to prevent potential future disagreements.

The UK is one of the most mature markets for PPP worldwide, starting from the initial concept of a PPP in the early 1990s. We have encouraged a wide range of types of PPP, including through our devolution process in the late 1990s. This gave the UK government access to huge amounts of private capital: 550 projects worth over £46 billion between 1990-2012, and that's just considering the most common type of PPP, the Public Finance Initiative (PFI) (HM Treasury, 2013). Government commitment was key, as well as the time needed to build our expertise and strong sense of partnership between the public and private sector.

The Government of Nepal approved its PPP Policy in 2015 (Government of Nepal, 2015). The Public Private Partnership and Investment Act (PPPIA) of 2019 is the current law that governs investments into PPP projects and implementation of such projects (Government of Nepal, 2019). To facilitate and oversee PPP projects the Government of Nepal set up the Investment Board Nepal (IBN), chaired by the Prime Minister, in 2010. IBN has authority on approval of investments into PPP projects above NRS 6 bn (Government of Nepal, 2019). The UK, drawing on its experience in investment and PPP, has been supporting IBN for many years now, with technical assistance on project development and on developing the necessary capacity for it to be an effective and sustainable agency.

Some big hydro projects are being developed through PPP. The 900 MW Arun III hydro project is a good example and is under construction with foreign investment of nearly $1.2 bn. OIBN, with UK support, played a crucial role in achieving the projects financial closure. Arun III will provide over NPR 348 billion in benefits to Nepal, including: 21.9% of free power, royalties from power sales, and about 3,000 jobs from construction and operation (IBN, 2023). Developed under the Build, Operate, Own and Transfer (BOOT) PPP model, the power plant will be handed back to the Government of Nepal after 25 years.

IBN has a crucial role in identifying, approving, and facilitating large investment projects, supporting investors throughout the project lifecycle, and recommending investment incentives. The UK support so far was mostly on investment facilitation project development (e.g., $1.2 bn foreign investment in the Arun III hydro project, two large cement factories with combined capacity of 9000 ton/day), investment promotion and necessary legal and regulatory reforms to give OIBN humans resources autonomy. Working closely with OIBN and the government, UK support played a crucial role in the legal reform (the PPPI Act amendment) which allows OIBN to have its own staff.

Despite its mandate, without significant external support, OIBN faces challenges that hinder its effectiveness. Internally, the OIBN does not have adequate staff and necessary expertise without the authority to hire its own staff (expected to be addressed with the PPPI Act amendment). It is limited to appointing specialists on a contract basis, relying on development partners for expert management, which affects long-term planning. While there has been progress, the One-Stop Service Centre (OSSC) has yet to be fully functional. There are also policy and regulatory areas that would benefit from greater clarity around investment approval

The UK government has been a key supporter of Nepal's investment and infrastructure development, particularly through its assistance to the OIBN and PPP projects. The Accelerating Investment and Infrastructure in Nepal (AIIN) programme (closed in 2024) provided technical support to OIBN, strengthening its institutional capacity, streamlining investment facilitation, and improving Nepal's regulatory framework for large-scale infrastructure projects. AIIN helped enhance OIBN's role in attracting private and FDI (FCDO, 2023).

UK's next phase of support on PPP investments and IBN support will come from the 7-year Green Growth Nepal programme (GGN), approved by the government of Nepal in 2024. In broad terms, GGN will support more sustainable development in Nepal though higher investment facilitation, improved policies and financing for green projects (British Embassy Kathmandu, 2024). Specifically, on IBN support, Green Growth Nepal (GGN) programme focuses on ensuring OIBN's sustainability by enhancing institutional governance, improving financial independence, and developing long-term investment facilitation mechanisms. GGN has already commenced its support for OIBN in formulating its Strategic and Business Plan and advancing investment-ready green projects. Furthermore, GGN will assist OIBN in implementing financial instruments such as blended finance and Viability Gap Funding (VGF) to attract and mobilize private capital for infrastructure development.

Additionally, British International Investment (BII) plays a crucial role in mobilizing private sector investment for PPP projects in Nepal, particularly in infrastructure and renewable energy. As the UK's development finance institution, BII provides long-term financing to catalyse sustainable investments. A key example is its support for the 216 MW Upper Trishuli-1 Hydropower Project, a landmark PPP initiative aimed at enhancing Nepal's renewable energy capacity (British International Investment, 2025). BII's investment has helped ensuring financial viability and private sector participation.

Private Infrastructure Development Group (PIDG), supported by the UK, also supports Nepal's PPP investments by mobilizing private capital and de-risking infrastructure investments. A key example is the Kabeli-A Hydroelectric Project, where InfraCo Asia facilitated financial structuring and community benefit-sharing, ensuring sustainability (The World Bank, 2021). Through these initiatives, the UK continues to play a vital role in Nepal's sustainable investment and infrastructure growth.

PPP is an important financing mechanism for Nepal to develop infrastructure projects on a cost-sharing basis as the government faces resource constraint. IBN plays a crucial role on PPP project investments and development. The UK has supported PPP developments, including technical assistance to IBN, and would like to thank the government of Nepal for the collaboration. As the Economic Growth team at the British Embassy Kathmandu, we look forward to continued partnership and collaboration with the government going forward.

**References**


Asian Development Bank. (2018). *Blended finance for infrastructure and low-carbon development in Asia.* https://www.adb.org/publications/blended- finance-infrastructure-low-carbon-asia: Asian Development Bank.

British Embassy Kathmandu. (2024). *Green Growth Nepal programme overview.* Kathmandu: Government of the United Kingdom and Government of Nepal.

British International Investment. (2025). *Nepal Water and Energy Development Company*, March 2025. Retrieved from British International Investment: https://www.bii.co.uk/en/our-impact/ investment/nepal-water-and-energy-development-company-investment-01/

FCDO. (2023). *Accelerating Investment and Infrastructure in Nepal (AIIN): Final evaluation report* . British Embassy, Kathmandu: Foreign, Commonwealth & Development Office.

Government of Nepal. (2015). *Public Private Partnership Policy, 2072 (2015).* Kathmandu: Government of Nepal.

Government of Nepal. (2019). *Public Private Partnership and Investment Act, 2019.* Kathmandu: Government of Nepal.

HM Treasury. (2013). *Private Finance Initiative: A new approach. United Kingdom Government.* Kathmandu.: HM Treasury.

IBN. (2022 ). *Annual report 2021/22.* Kathmandu: Investment Board Nepal.

IBN. (2023). *Project Details: Under Implementation_Arun-3 Hydropower.* Investment Board Nepal. Retrieved from https://ibn.gov.np/projects/details/arun-3-hydropower-3835#:~:text=Revenue%20(during%20concession%20period):%20NPR%20348%20Billion%2C%20Free%20Energy:%2021.9&text=IBN%20Under%20Study%20Projects%20-%20Sector%20Profiles%20-%20Summary%20Version%20-%20Sector%

Ministry of Finance. (2024). *Economic survey 2023/24.* Kathmandu : Government of Nepal.

OECD. (2018). *Global outlook on financing for sustainable development 2019.* Organisation for Economic Co-operation and Development. doi:https://chatgpt.com/c/684e7657-451c-800f-9d3d-27298282bb84

The World Bank. (2021). *Implementation Completion and Results Report.* The World Bank Group.

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## UNLOCKING POTENTIAL

# Capital Market as Catalyst for PPP Success in Nepal

**Mr. Santosh Narayan Shrestha, Chairperson of the Securities Board of Nepal (SEBON), is a seasoned professional with over 20 years of experience across the financial and manufacturing sectors. He holds an MBA from School of Management, Kathmandu University, and has expertise in corporate governance, financial regulation, and strategic planning. He has served as Founder Chairman of Swabhimaan Laghubitta, leading it to IPO and NEPSE listing, and also chaired Nepal Express Finance, overseeing its merger with Kailash Bikas Bank as well as served as board member of NEA, where he led initiatives in organizational restructuring, corporate policy development, and the execution of key infrastructure projects. Known for fostering regulatory compliance, transparency, and investor trust, Mr. Shrestha is resolved to lead SEBON with a forward-looking vision, reinforcing Nepal's securities market and aligning it with global best practices.**

**Background**

Nepal is a rich country considering the natural resources & potential it has, yet the country is struggling to utilize them and be in the state of economical richness. Today most countries in the world are trying their best to extensively build the infrastructures to ease the livelihood of its people. Nepal is also doing a lot of projects to develop the infrastructures in the country. Be it hydropower projects, transportation networks, hospitals, tourism facilities, or communication systems, the demand for better infrastructure is rising with the time. However, the government alone cannot meet these ever-growing needs. Traditional sources of funding, such as government budgets, international loans, and foreign aid, are not enough to finance the scale of development that Nepal aspires to achieve.

As an alternative to the traditional financing system, countries can also opt for Public-Private Partnerships (PPPs) as a way to bridge the gap. A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance (The World Bank, 2025). Over the last decade, Nepal has taken several steps to strengthen & upgrade the existing legal and policy framework to support PPPs. Laws like the PPP Policy (2015), the PPP Act (2019), and the PPP Regulation (2020) have laid the groundwork for a more organized and transparent approach to such partnerships. These legal provisions are designed to encourage private sector participation and improve project planning, and execution. The PPP Act has segregated the roles and responsibility to the federal, provincial and local government according to the individual cases of PPP projects (Government of Nepal, 2019). Along with the three-level government, Investment Board of Nepal (IBN), is also playing direct roles in overseeing and supporting PPP projects in Nepal (Investment Board Nepal, 2011).

At the same time, another major development has been happening in Nepal's financial sector, especially in the capital market. Over the past few years, there's been a noticeable rise in capital market participation. Millions of Nepali citizens now hold Demat accounts and use online platforms like MeroShare to invest in stocks, bonds and mutual funds (Republica, 2024). Reforms introduced by the Securities Board of Nepal (SEBON), along with technical improvements, have made investing more accessible than ever. Tools like Application Supported by Blocked Amount (ASBA) for IPOs and NEPSE Online Trading System (NOTS) for stock trading have helped bring in a wider, and more diverse crowd of investors into the financial ecosystem (Vaidya, 2021).

This growing capital market opens up a significant opportunity for Nepal to look at fresh ways of funding its development projects, especially those under the PPP model. Capital markets could provide long-term and sustainable funding sources that are severely needed for infrastructure projects. Financial tools such as equity shares, bonds, and specialized investment funds might be used to back PPP ventures in sectors like energy, transportation, tourism etc. This sort of financing not only eases pressure on government budgets but also spreads the risk and brings in more private sector interest.

But still, even with all these upsides, the link between PPPs and capital market financing in Nepal is still in early days. Noticeably there is only one specific sector where capital markets helped fund infrastructure projects, i.e. hydropower. But overall, participation is still low, compared to public funds and foreign loans.

For Nepal to really tap into the full potential of combining PPPs with capital markets, a much more strategic and joint approach is needed. Strengthening the legal and institutional setup, pushing for financial innovation, building investor confidence, and maintaining transparency and accountability will be key to gaining trust and pulling in investments. If the right reforms and policies are in place, capital markets can be a strong driver for funding Nepal's infrastructure and meeting its long-term development goals.

***Policy and Legal Arrangements***:

Various policy and legal arrangements have made for the economic prosperity of the country through domestic or foreign private investment in the infrastructural and service sector projects to be conducted in public private partnership model. The policy and legal arrangement include Public Private Partnership Policy, 2015, Public Private Partnership Act, 2019, Public Private Partnership Regulation, 2020. The main objective of the PPP Policy, 2015 is to enhance public-private sector investment on development and operation of public infrastructure services through the adoption of the PPP model for comprehensive socio-economic development. Accordingly, PPP Act, 2019 and PPP Regulation, 2020 have been enacted to encourage domestic and foreign investment in infrastructure and service sector for the overall development of the country (Government of Nepal, 2019).

***Institutional Arrangements:***

For the effective planning, implementation, evaluation and monitoring of PPP Project, various institutional arrangements have been set up. Federal, Provincial, and Local Government, Office of the Investment Board Nepal (OIBN), The PPP Unit, Nepal Rastra Bank (NRB), Securities Board of Nepal (SEBON), Development Partners (such as World Bank, Asian Development Bank etc.) and Private Sector Developers etc. are the key stakeholders in the PPP project. The legal provisions regarding the implementation of PPP project to be carried out by the agencies i.e. Federal, Provincial, and Local Government as well as OIBN have been mentioned under section 4 of the PPP Act, 2019. NRB and SEBON play the facilitating role in the implementation of the PPP project.

## Status of Participation of PPP-based Projects in Nepal's Capital Market:

Traditionally, infrastructural development project mainly relied on public finance, aid and loan from international financial institutions. However, in the recent days, capital market has played crucial role in financing PPP projects. PPP project can be financed through the capital market instruments, such as equity, bonds & debentures, infrastructure investment trust, specialized investment funds (SIF) etc. Various infrastructure development project such as hydropower, telecommunication, hospital, hotel & tourism, urban development, road and airport construction etc. can be implemented in PPP model by utilizing fund through capital market. However, in case of Nepal, we are yet to utilize all those scopes. Currently, only hydropower projects are financed directly through capital market instrument in Nepal. As of Chaitra End 2081, there are 91 hydropower development company listed in Nepal Stock Exchange (NEPSE) (NEPSE, 2025). The total paid up capital and market capitalization of hydropower development companies are Rs.167,244.34 million and Rs.668,176.34 million. Banks & financial institutions have also raised fund by issuing debentures and channelize those funds in hydropower projects as well as other sectors. Similarly, Specialized investment fund managers also create various funds to finance the infrastructure related projects.

**Strategic Alignment of PPP and Capital Market Reforms for Nepal Development Priorities**

Nepal has tremendous natural resources but it has not been able to utilize those natural resources for economic development of the country due to infrastructure financing gap. The effective implementation of PPP project financed through capital market will help to bridge those financing gap. Thus, PPP framework should be strategically aligned with capital market reforms to strengthen the project's bankability and creditworthiness to mobilize long term and sustainable financial resources for the infrastructural development projects such as hydropower, transportation, hotel & tourism, hospital and telecommunication etc.

As per the Public Debt Management Act, 2022, Public Debt Management Office (PDMO) is responsible for the issuance and recording of government bond including municipal bond (Government of Nepal, 2022). The trading of government bond in secondary market has to be performed in the recognized stock exchange as per the federal securities laws. SEBON is responsible for the regulation and supervision of the Nepalese capital market as per the Securities Act, 2006 and the regulation made under the Act. The existing securities registration & issuance regulation, 2016 has included the provisions regarding the registration and issuance of equity and bonds. Rule 9c of the regulation has provision regarding the issuance of green bond whereas rule 28 of the regulation has provided the legal framework for the international financial institutions to issue the bond in Nepalese capital market (Securities Board of Nepal, 2016). Even though the existing regulation has covered the legal framework regarding the registration and issuance of equity and bond, SEBON has initiated to amend the existing regulation to incorporate the international good practices regarding the registration & issuance of corporate bond, green bond and other thematic bonds to finance the PPP model project for the economic development. Besides legal framework, technological improvement in primary and secondary market has led to tremendous growth in the public participation in the capital market.

**Role of SEBON as Policy and Regulatory Enabler**

Traditionally, PPP model projects are mainly relied on public finance, aid and loan from intranational financial institutions since these projects are executed by various ministries at federal, provincial and local level, PPP Unit and OIBN. The number of PPP project and amount financed through capital market is insignificant as compared to those of public finance and loan and aid from international organization. However, in recent days, the role of capital market to bridge the financing gap in the PPP ventures has been crucial. As a result, for the successful execution of PPP project, involvement of SEBON is crucial in creating an enabling policy, legal and regulatory mechanism for mobilizing funds through capital market into PPP project. SEBON is also responsible for the supervision of trading of equity, bond and mutual fund market. Recently, SEBON has initiated and formed a committee to study the gaps in existing securities registration and issuance regulation, 2016. A separate regulation and guidelines for the registration and issuance of debt instrument has been drafted and under approval process. SEBON also conducts financial literacy program to raise awareness regarding capital market investments.

**Need for strengthening Ecosystem for Project Bankability and Market Readiness:**

The ecosystem for project bankability and market readiness should be strengthened to attract domestic and foreign investors, accelerate the infrastructure development and attain sustainable growth. The feasibility, risk and return potentiality of the project determines the project bankability. A well prepared, commercially viable, legally and politically sound projects can attract investors to finance these projects. However, Nepal faces various challenges such as weak project preparation framework, low access to long term private capital, ambiguity in laws and political instability etc. These factors discourage the private investment in infrastructure development projects.

Thus, a robust ecosystem should be developed in such a way that it can attract domestic and foreign capital for the effective implementation of PPP projects. For this, a well-structured Project Preparation Center (PPC) should be established which will ensures that projects are technically, financially, and legally sound to the investors. Similarly, capacity of the government officials, financial institutions, and private sectors should also be enhanced that would help them to understand and analyze the risk-return of the project. Further, promoting transparent project pipelines and encouraging public-private cooperation will further uplift the investor confidence. A strong ecosystem unlocks finance for key sectors like energy, transport, and Small and Medium Enterprises (SMEs) as well as it also helps in positioning Nepal to access global climate and development funds.

**Conclusive remarks:**

PPP has emerged as reliable mechanism to accelerate the infrastructure development of Nepal. Nepal faces financing gap in the development projects like energy sector, transportation, health & tourism, hotel and hospital etc. Capital market is the reliable sources for the long term and sustainable financing. Currently, Nepalese capital market has remained underutilized in financing infrastructure development projects. Only hydropower projects are financed through equity markets. Thus, other PPP model projects can also be financed through capital market instruments such as project-based securities, infrastructure bonds, green bonds and listing of PPP ventures. SEBON has regularly updated its regulations to facilitate the private sector investment. SEBON has drafted a separate regulation for the Bond and debenture registration and issuance including issuance of green and other thematic bonds. Additionally, adaptation of automation system in the primary and secondary market has led to tremendous growth in the public participation in the capital market. Thus, the greater participation of the public in the capital market would be the sustainable source for financing the PPP project.

**References**


Government of Nepal. (2019). *Public Private Partnership & Investment Act, 2019.* KTM: Government of Nepal.

Government of Nepal. (2022). *Public Debt Management Act, 2022.* KTM: Public Debt Management Office.

Investment Board Nepal. (2011). *Investment Board Act.* Government of Nepal, Investment Board Nepal. Kathmandu: Investment Board Nepal.

NEPSE. (2025, May 19). *Listed Securities : Hydropower* . Retrieved from Nepal Stock Exchange: https://nepalstock.com/company

Republica. (2024, June 05). Number of demat accounts nearing 6.3 million as participation of investors in stock market grows. *Republica | Economy*. Retrieved from https://myrepublica.nagariknetwork.com/news/investor- participation-rising-in-stock-market-demat-accounts-nearing-6-3-million/?categoryId=81

Securities Board of Nepal. (2016). *Securities Registration and Issue Regulation, 2073 B.S.* Kathmandu, Nepal: Securities Board of Nepal.

The World Bank. (2025). *What is a PPP: Defining "Public-Private Partnership"*. Retrieved from Public-Private Partnership resource Center: https://ppp.worldbank.org/public-private-partnership/what-ppp-defining-public-private-partnership

Vaidya, R. (2021). Opinions of Investors on Nepal Stock Exchange Limited (NEPSE) Online Trading System. *Prithvi Academic Journal, 4*, 56-65. doi:https://doi.org/10.3126/paj.v4i0.37015

## RISK DIVERSIFICATION TOOLS IN PPP PROJECTS AND EMERGING GLOBAL PRACTICES

# Role of Nepal Insurance Authority

**Mr. Sharad Ojha, Chairperson of the Nepal Insurance Authority, is a distinguished professional with over 12 years of experience spanning the media, corporate sectors, academia, and legal practice. His expertise lies in policy analysis and communication, with a strong foundation in financial regulation. He has served as an adjunct faculty member at reputed business schools in Kathmandu, teaching macroeconomic and microeconomic aspects. As a licensed advocate, he has been actively involved in legal practice, policy consulting, and research. His multidimensional contributions continue to strengthen Nepal's financial and legal systems through strategic governance and progressive regulatory leadership.**

*"Part of the solution to bolstering natural catastrophe resilience in emerging economies is more and better private-public partnerships between governments and insurers."*

*— Christof Reinert, Munich Re*

**Introduction**

Nepal places significant emphasis on infrastructure development in the 16th Five-Year Plan, prioritizing hydro electricity generation, enhanced transportation, digital infrastructure, and urban development. Public-private partnerships (PPPs) are highlighted as important instruments to bridge financing gaps and leverage private sector expertise. The government also aims to create an enabling environment for PPPs through improved regulatory frameworks, risk-sharing mechanisms, and targeted incentives. However, PPP projects, due to their scale and complexity, come with inherent risks and their success largely depends on effective risk management and diversification. The Nepal Insurance Authority (NIA) is committed to build a risk-resilient PPP ecosystem, placing insurance at the center of risk mitigation strategies.

**PPP's and Insurance: Notable Global Practices**

PPPs are usually characterized by long project lifecycles, multiple stakeholders, and significant capital requirement which makes them vulnerable to a variety of risks. Though insurance cannot address every risk faced in PPP projects, it is one of the most effective tools for managing risk arising from construction and operational activities along with the environmental factors and force majeure events. Globally, mechanisms like (re)insurance pools and disaster risk financing have proven effective in managing such risk.

We can take the example of the Flood re in UK which has effectively utilized PPP model to manage the flood risk. The Flood RE, established in 2016, addresses the challenge of obtaining affordable flood insurance for households situated in high-risk flood zones. This pool enables the insurers to transfer the flood risk component of home insurance policies to Flood Re for a fixed premium, thereby reducing the cost burden on policyholders. Similarly, in response to the escalating frequency and severity of climate-related disasters, the European Central Bank (ECB) and the European Insurance and Occupational Pensions Authority (EIOPA) have proposed the establishment of a public-private reinsurance scheme, known as "EU Re." This initiative aims to pool private risks across EU member states to increase insurance coverage for natural catastrophe risks and narrow the existing protection gap, thereby diversifying exposure and reducing capital requirements for insurers. Thus, risk pools are emerging as an effective mechanisms of risk transfer and these are but a few examples from a vast experience of successful PPP model in insurance.

### PPP's and Insurance: Nepalese insurance practices

Although Nepal has not yet implemented a full-fledged PPP insurance model with a pooling mechanism, it has successfully applied pooling in other high-risk areas through policy-level interventions and mandatory insurance schemes.

The government through the *Public Procurement Regulations, 2064 (2007)* and supported by the *Contract Act, 2056 (2000)* requires contractors to procure Contractor's All Risk (CAR) Insurance, Third-Party Liability Insurance, and Worker's Compensation/ Personal Accident Insurance, thereby, securing large scale construction projects.

Similarly, the government has mandated insurance for foreign employment workers that too in an affordable premium rate. NIA, thus, developed a standardized tariffed foreign employment term life insurance policy after due consultation with the insurers, the government and concerned stakeholders. The insurers are now offering this policy to the general public through a pool modality and it captures a significant portion of total insurance business in life sector.

Furthermore, the third-party insurance in Motor insurance is also made mandatory by the government and NIA has played the significant role of designing a standard insurance solution with fixed benefits and premium rates. Considering the high claim ratio which makes the policy risky and unattractive for single insurer, this policy is also issued via pooling arrangement.

Moreover, in recent times, the transportation sector and the general public advocate that the benefit amount offered in the third-party liability policy is not sufficient to cover the actual third-party liability that arises in case of an accident citing the need to expand the coverage and benefits. However, this expansion will ultimately result in an increase in the cost of insurance which will make the policy unaffordable to the lower income group who are in true sense the actual segment in need for this policy. This, however, leads to the opportunity to create a PPP model whereby the government can subsidize the premium rate or even contribute in the claim payment thus benefitting the general public.

Additionally, in the area of agriculture insurance as well, the government currently provides up to 80% subsidy in the premium making the insurance affordable while ensuring sustainability for insurers. NIA plays a constructive role to promote this insurance and collaborates with the Ministry of Agriculture and other stakeholders to design standardized products and rates. This is also a notable practice of PPP insurance model.

### Potential of PPP in Hydropower Insurance

It is a known fact that Nepal is highly vulnerable to impact of climate change and natural disasters. In the infrastructure sector, hydropower projects, in particular, face substantial risks due to their location in flood and landslide prone areas. Currently, individual insurers provide insurance solutions to these projects. However, rising claim experience with high loss ratio have made it increasingly difficult for them provide coverage as well as get reinsurance at sustainable premium rates. The reinsurers are also reluctant to accept the risk at the prevalent premium rates. This has resulted in a difficult situation where the premium rates need to be raised significantly for the hydro power sector to get insurance coverage which will substantially raise the overall cost of the project and may even make the project financially unviable. Therefore, NIA is in consideration to offer this insurance solution via a risk pool as this emerges as a practical solution. However, there needs to be a detailed feasibility study and thorough discussions with the concerned parties before the pool can be established and NIA has already initiated the process in this area.

**Potential of PPP in Health Insurance**

In the coming days, another area worth consideration for the PPP model is in the health insurance landscape. A public private partnership model could be designed whereby the government creates a fund to subsidize the premium for the health insurance to the general public and the insurance companies handles the marketing, administration and claim procedures. This model could provide broader health coverage to a vast segment of population, especially for low-income groups by utilizing the network, expertise and operational excellence of the insurers and the capital support from the government. A similar successful example is “The Rashtriya Swasthya Bima Yojana (RSBY)” implemented in our neighboring country India which is funded by the government of India to provide health insurance to families below the poverty line. The government pays most of the premium whereas, the insurance companies administer the policy. The risk is shared through a regulated pool with co-financing.

**Role of Nepal Insurance Authority**

There is no doubt that PPP models enable insurers to collaborate with the public sector to cover a segment of the population that are often too risky or unprofitable to insure alone. Establishment of insurance pools helps to diversify exposure and reduce capital pressure on insurers. By leveraging economies of scale, pools help to increase insurance coverage for natural catastrophe risks and narrow the existing protection gap.

NIA fully recognizes the importance of risk pooling and hence, made it and organizational mandate for the coming year. NIA plays the crucial role of coordinating and collaborating with the federal and local governments, the insurance industry, stakeholders, the international development partners and donor agencies. As the regulatory body, NIA is responsible for creating an enabling environment for establishing PPP and risk pooling as a mechanism of risk management. NIA is prepared to play a transformative role in facilitating risk diversification through public-private partnership (PPP) projects by developing innovation, fostering innovative product development like parametric insurance, designing necessary product, procedure and regulatory frameworks, and enhancing the technical capacity to successfully implement such models. Through international collaboration and capacity-building initiatives, NIA is empowering its human resource as well as the local insurers to design the necessary insurance solutions and underwrite complex risks. These partnerships help develop solutions that cover high-risk areas where local insurers may hesitate to engage independently.

**Conclusion and the Way Forward**

In conclusion, as Nepal accelerates infrastructure development under its national strategies and SDG commitments, insurance-backed risk diversification must become a foundation of PPP projects. NIA recognizes the importance of risk pools to provide insurance coverage against various risks faced by large-scale PPP projects. NIA is prepared to adopt PPP model in insurance in collaboration with the government and the international and local partners. This will ensure public backing with private insurance expertise. However, the financial viability of the project, ease of operation and social acceptability of the PPP modality will be duly assessed before actual commitments.

Hence, the message is clear: **risk is not the enemy—poorly managed risk is** and strong partnerships between public institutions, private sector stakeholders, international agencies and regulatory authorities like NIA will be vital for building a more sustainable, resilient, and inclusive development pathway and unlock the full potential of PPPs in Nepal.

**References**


A2ii, & IAIS. (2021). The role of insurance regulation in promoting resilience and inclusive insurance in infrastructure projects. Access to Insurance Initiative. https://www.a2ii.org/en/publication/the-role-of -insurance-regulation-in-promoting-resilience-and-inclusive-insurance-in-infrastructure-projects

Asian Development Bank. (2021). Risk allocation and mitigation in infrastructure PPP projects. https://www.adb.org/publications/risk-allocation -ppp- infrastructure

EIOPA & ECB. (2024). Towards a European system for natural catastrophe risk management. Retrieved from https://www.eiopa.europa.eu/publications/eiopa-and-ecb-joint-paper-towards-european-system-natural-catastrophe-risk-management_en :contentReference[oaicite:2]{index=2}

Flood Re. (n.d.). About us. Retrieved from https://www.floodre.co.uk/about-us/Flood Re+4Flood Re+4Flood Re+4

Government of Nepal. (2007). Public Procurement Regulations, 2064 (2007). Kathmandu: Public Procurement Monitoring Office.

National Portal of India. (n.d.). Rashtriya Swasthya Bima Yojana. Government of India. https://www.india.gov.in/spotlight/rashtriya-swasthya-bima-yojana

Nepal Insurance Authority. (n.d.). Annual reports and strategic plans. https://nia.gov.np

OECD. (2021). Innovation in catastrophe risk financing in emerging markets. https://www.oecd.org

World Bank Group. (2017). Public-private partnerships reference guide (Version 3.0). https://ppp.worldbank.org


## SNIPPET PPP IN HEALTH

| Category | Details |
|---|---|
| **Key Sub-Sectors** | - Pharmaceuticals: Domestic production covers 45% of demand; imports primarily from India.<br>- Healthcare Services: Diagnostics, hospitals, and specialized care.<br>- Medical Tourism: Ayurveda, wellness, and advanced treatments.<br>- Medical Education: International students contribute ~USD 41 million annually. |
| **Current Investments** | - Private Hospital Investments: Nepal Medicity Hospital, Grande Hospital, Norvic Hospital.<br>- Annual Expenditure in Private Healthcare: NPR 25.4 billion (~USD 200 million).<br>- Diagnostic Services: Growth in advanced diagnostic facilities. |
| **Key Investment Areas** | - Hospital Infrastructure: Construction of multi-specialty hospitals.<br>- Pharmaceuticals: Expansion in R&D and export-oriented manufacturing.<br>- Ayurveda and Wellness: Spas, yoga centers, and tourism hubs.<br>- Medical Tourism: Facilities for complex surgeries. |
| **Future Opportunities** | - Hospital Expansion: Public-private partnerships for large-scale projects.<br>- Wellness Tourism: Ayurveda, spa, and meditation centers.<br>- Medical Education: Demand for international-standard medical colleges. |
| **Challenges** | - Limited Infrastructure: Overcrowding in public hospitals; lack of advanced technology.<br>- Access to Finance: High capital costs for new hospitals and research facilities.<br>- Skilled Workforce: Shortage of trained medical personnel. |
| **Potential Growth Areas** | - Medical Research Centers: Pharmaceuticals and advanced treatments (oncology, cardiology).<br>- International Patient Hub: Affordable healthcare for neighboring countries.<br>- Pharmaceutical Manufacturing: Expand exports and meet 100% of domestic demand. |
| **Investment Value Examples** | - Nepal Medicity Hospital: USD 75-80 million investment.<br>- Grande Hospital: USD 50 million investment.<br>- Pharmaceutical R&D and Manufacturing: NPR 15 billion projected. |

# Strengthening Fiscal Governance in Public-Private Partnerships

**Mr. Mark Moseley is a global consultant specializing in infrastructure projects and Public-Private Partnership (PPP) frameworks. He is the Principal at Moseley Infrastructure Advisory Services and affiliated with the University of British Columbia. A former Chief Operating Officer at the Global Infrastructure Hub and Lead Lawyer at the World Bank, Mark brings decades of experience in enabling environments for PPPs worldwide. He is also a recognized Peer of the World Association of PPP Units and Professionals, an occasional lecturer at leading universities, and has successfully advised governments and private entities across multiple continents on sustainable infrastructure delivery.**

Public-Private Partnerships (PPPs) are powerful instruments for governments wishing to provide much-needed infrastructure services for their citizens. However, in order to have a sustainable PPP program, governments must pay close attention to managing the fiscal impacts of the PPP projects in their country.

## 1. Key Features of a PPP Project

PPPs are long-term contractual agreements between the public sector and the private sector, whereby the private sector provides infrastructure services. Often, those services include the activities of designing, building, operating and maintaining infrastructure facilities, before transferring the facilities back to the public sector at the end of the long-term contract – and these types of projects are known as DBOM arrangements. It is also very common to have the private sector provide the financing for these activities, under a DBFOM arrangement.

To compensate the private sector for undertaking these activities, PPP contracts typically use one of the following mechanisms:

- In an **Availability Payment PPP**, payments are made by the government's Contracting Authority (such as a Ministry of Transport) to the private sector Project Company on a periodic basis, as and when the facility is available for use (for example, the Ministry of Transport may make monthly payments to the Project Company for a new road, beginning when the road has been constructed, on the basis that the road is properly maintained and available for use by motorists);
- In an **End-User Payment PPP**, payments are made by the users of the facility (for example, if the project is a toll road, the Project Company would collect tolls from the motorists who use the highway after it has been built);
- In a **Hybrid PPP**, the payments to the Project Company come from a mix of availability payments and end-user payments.

## 2. The Critical Distinction between Financing and Funding

It is critically important to understand the difference between financing and funding.

**Financing** is the money required to pay for the upfront costs of an infrastructure project. In a DBFOM project, it comes from the Project Company's equity investors and from commercial banks and other lenders providing debt financing – plus, possibly, donors providing concessional financing.

**Funding** is the money which a Project Company receives, to allow it to repay the financing and to allow it to earn a profit. As indicated, the funding can come from taxpayers, in the case of an Availability Payment PPP, or from end-users, in the case of an End-User Payment PPP, or from a mix of the two sources, in the case of a Hybrid PPP. As was noted in a 2017 commentary published by the Brookings Institution:

*It is important to note that there is no "free lunch" when it comes to PPPs: the cost of an infrastructure project must eventually be paid, either by the taxpayer or the consumer. When firms are offering to pay the upfront costs of infrastructure investments, it can be easy to lose sight of this reality (Schanzenbach, Nunn, Nantz, & Rotrosen, 2017).*

## 3. What Are the Fiscal Impacts of PPPs?

In the context of a PPP project, the 'fiscal impact' of the project is the effect which the project may have on the government's fiscal balance sheet – in other words, the impact of the project on the government's budget balance and the sustainability of the government's financial position.

There are two different types of impacts which PPPs may have on a government's fiscal situation. One type arises from **direct liabilities**, while the other involves **contingent liabilities**.

Direct liabilities are the obligations which a government will have under a PPP Contract to make predictable payments to the private sector Project Company. For example, in the case of an Availability Payment PPP or a Hybrid PPP, these predictable payments will include the periodic payments that the government must make once the facility has been constructed and is available for use.

In addition, however, to these direct liabilities, attention must be paid to the contingent liabilities associated with PPPs. Virtually every PPP Contract – whether it is for an Availability Payment PPP, an End-User Payment PPP or a Hybrid PPP – will contain provisions that require the government to make substantial payments to the Project Company if certain contingent events happen. Such events may include, for example, a decision by the government to terminate the PPP Contract unilaterally and prematurely. Under such a scenario, the government may be liable under the PPP Contract for a very large contingent payment, so as to compensate the Project Company for its damages, including its future loss of profits.

Unfortunately, countries frequently pay insufficient attention to these contingent liabilities. Specifically, the Ministry of Finance in the country may not have considered the impact of such a large payment obligation on the fiscal situation of the government.

## 4. Managing the Fiscal Impacts of PPPs

In response to concerns over the failure of many governments to deal with the direct and contingent liabilities associated with PPP projects, international financial institutions have developed extremely useful knowledge products to help deal with this critically important governance issue.

One such knowledge product is the World Bank's 2019 *Guidance on PPP Contractual Provisions* (The World Bank, 2019). This document provides very detailed guidance on drafting the provisions in PPP Contracts that give rise to direct and contingent liabilities, with alternative approaches and explanatory annotations.

Another particularly useful tool, which has been jointly developed by the International Monetary Authority and the World Bank, is the 2019 Public Fiscal Risk Assessment Model (PFRAM 2.0) (Rial, et al., 2019), which is designed to allow a Ministry of Finance to manage the fiscal impacts of PPPs. This tool can be used to estimate the fiscal risks associated with an individual PPP project or with a portfolio of PPP projects. It generates a "fiscal risk matrix" for each PPP project in the country, identifying the main fiscal risks, their likelihood and potential impacts, and potential mitigation measures. Using this tool, a Ministry of Finance can estimate the potential macroeconomic shocks – caused, for example, by the premature termination of a PPP Contract – on the country's GDP growth, inflation and currency exchange rates. In emerging market and developing economy countries, the IMF and the World Bank offer training programs to Ministry of Finance officials on how to use the PFRAM 2.0 tool. These training programs are usually made available free of charge, as part of a Technical Assistance grant.

## 5. Conclusions

As indicated, Public-Private Partnerships are powerful instruments to help governments close the 'infrastructure gaps' in their countries. However, PPPs must be properly managed, particularly by the officials in the Ministry of Finance who are responsible for maintaining the fiscal health of the government. Fortunately, useful knowledge products are available from international financial institutions to help government officials undertake this task. By employing the available tools, proper governance arrangements can be put in place, in order to realise the full benefits of Public-Private Partnership programs.

**References**

Rial, I., Navarro, A., Queyranne, M., Monteiro, R., Funke, K., Gallardo, N., . . . Verdier, G. (2019). PPP Fiscal Risk Assessment Model - PFRAM 2.0. World Bank Group in association with International Monetary Fund. Retrieved from https://www.imf.org/external/np /fad/publicinvestment/pdf/PFRAM2.pdf

Schanzenbach, D. W., Nunn, R., Nantz, G., & Rotrosen, A. (2017, February 9). No Free Lunch: The Pros and Cons of Public-Private Partnerships for Infrastructure Financing. Brookings. Retrieved from https://www.brookings.edu/articles/no -free-lunch-the-pros-and-cons-of-public-private-partnerships-for-infrastructure-financing/

The World Bank. (2019). Guidance on PPP Contractual Provisions. The World Bank Group, International Bank for Reconstruction and Development. Washington D.C.: Publishing and Knowledge Division, The World Bank Group. Retrieved from https://ppp.worldbank.org/public-private-partnership/sites/default/files/2021-03/Guidance%20on%20PPP%20Contractual%20Provisions_2019%20edition.pdf



## SNIPPET PPP IN TOURISM

| Category | Details |
|---|---|
| **Key Sub-Sectors** | - Adventure Tourism: Trekking, mountaineering, paragliding, bungee jumping, zip-lining, and white-water rafting. |
| | - Cultural and Religious Tourism: Heritage sites like Lumbini, Pashupatinath, and Durbar Squares. |
| | - Wellness Tourism: Yoga retreats, Ayurvedic centers, and meditation hubs. |
| | - MICE Tourism: Growing Meetings, Incentives, Conferences, and Exhibitions sector with enhanced hotel and convention facilities. |
| **Current Investments** | - Tourism sector contribution: USD 548 million in 2023, with tourist spending at ~USD 41/day. |
| | - Total foreign exchange earnings in 2023: NPR 61.5 billion |
| | - Existing accommodation: 214 star-rated and deluxe hotels, ~42,300 beds in non-star accommodations |
| **Key Investment Areas** | - Boutique Hotels: Conversion of heritage buildings into sustainable, high-end accommodations. |
| | - Eco-Friendly Resorts: Development in areas like Khaptad, Rara Lake, and Annapurna regions . |
| | - Tourism Training Centers: Focused on hospitality management and adventure tourism. |
| | - Adventure Sports Infrastructure: Paragliding schools, trekking support facilities, and winter sports. |
| **Challenges** | - Infrastructure Gaps: Lack of connectivity and high-standard infrastructure in remote areas. |
| | - Environmental Concerns: Need for sustainable tourism practices. |
| | - Skilled Workforce: Shortage of trained professionals for adventure and hospitality services. |
| **Future Growth Areas** | - Medical and Wellness Tourism: Combining spiritual retreats with holistic health treatments. |
| | - Smart Tourism: Integration of AR/VR and digital tools for enhancing tourist experiences. |
| | - Cross-Border Tourism: Leveraging proximity to India and China to increase tourist inflow. |
| **Notable Initiatives** | - Tourism Decade 2023-2032: Aim to attract 3.5 million tourists annually and raise daily tourist spending to USD 125. |
| | - Heritage Conservation Projects: Investments in restoration and adaptive reuse of heritage sites. |
| | - Adventure Hubs: Developing Pokhara and Chitwan into major adventure and eco-tourism destinations. |

## PPPs IN NEPAL

# Role of International Investment Firms

**Mr. Tim Gocher is the founder and CEO of Dolma Group and an Honorary Professor of Sustainable Business at the University of Nottingham. He is also the founder and Chairman of the Dolma Foundation, a charity that provides education to underprivileged children in Nepal.**

**Mr. Gocher has held diverse roles at global firms such as Deloitte (London), J.P. Morgan (New York), and E.On. As an entrepreneur, he founded and exited two tech ventures. He is a Guest Lecturer at London Business School (his MBA alma mater) and serves on the Executive Advisory Board of FAST-Infra Label, an OECD-backed initiative promoting sustainable infrastructure investment.**

**In 2022, Mr. Gocher was honored with an OBE for his exceptional contributions to British investment and economic development in Nepal.**

Public-Private Partnerships (PPPs) have played a key role in Nepal's infrastructure growth, particularly in energy and hydropower. As Nepal sets ambitious clean energy targets, attracting Foreign Direct Investments (FDIs) is essential to bridge the financing gap, scale development and combat climate change. Reducing emissions and expanding renewable energy is not only an economic imperative but also a climate necessity, as Nepal faces accelerated glacial melt driven by black carbon and $CO_2$ emissions.

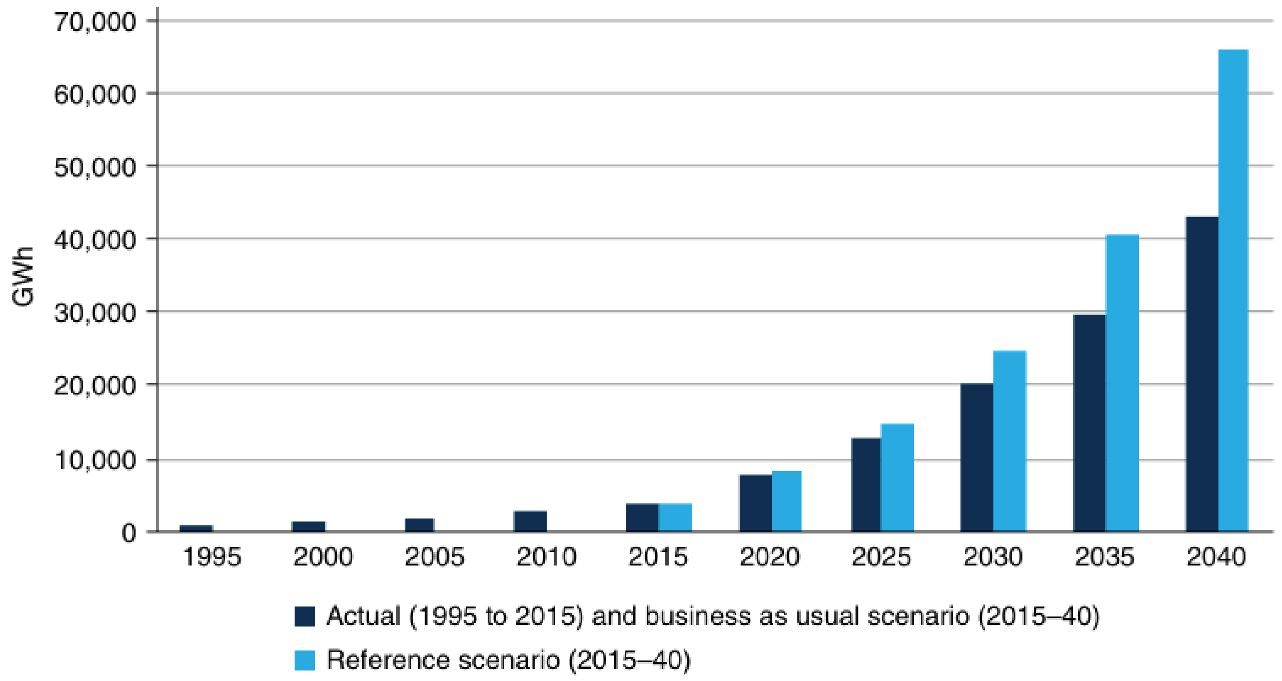
Despite Nepal's strong domestic investment ecosystem, international institutional investors remain cautious due to regulatory challenges, bureaucratic inefficiencies, and limited successful FDI exits. To position itself as a regional leader in sustainable investment, Nepal must create a more predictable, transparent, and climate-aligned investment environment that attracts long-term capital for green energy expansion.

### Nepal's Investment Climate: Milestones and Progress

A seminal moment has arrived in Nepal's development journey. The Energy Development Roadmap aims to generate an impressive 28,500 MW of clean electricity over the next decade (Republica, 2024). Landmark agreements, such as the 10,000 MW export pact with India (SASEC, 2024) and a trilateral power-sharing deal between Nepal, India, and Bangladesh, are positioning Nepal as a regional energy leader (Anupam, 2024). These initiatives have the potential to reshape Nepal's economy through increased export revenues and improved domestic energy availability.

Harnessing just 20% of Nepal's viable hydropower potential by 2030 could increase real GDP by 87% and double economic output. (Gunatilake et al., 2020). Meanwhile, electricity demand has grown at a compound annual growth rate (CAGR) of 8% since 1995 and is projected to rise 12% annually, effectively doubling consumption every six years (World Bank, 2019). These statistics underscore the transformative potential of hydropower in Nepal's economic development.

In a significant milestone, Nepal recently received its first sovereign credit rating of BB-, reflecting its economic stability



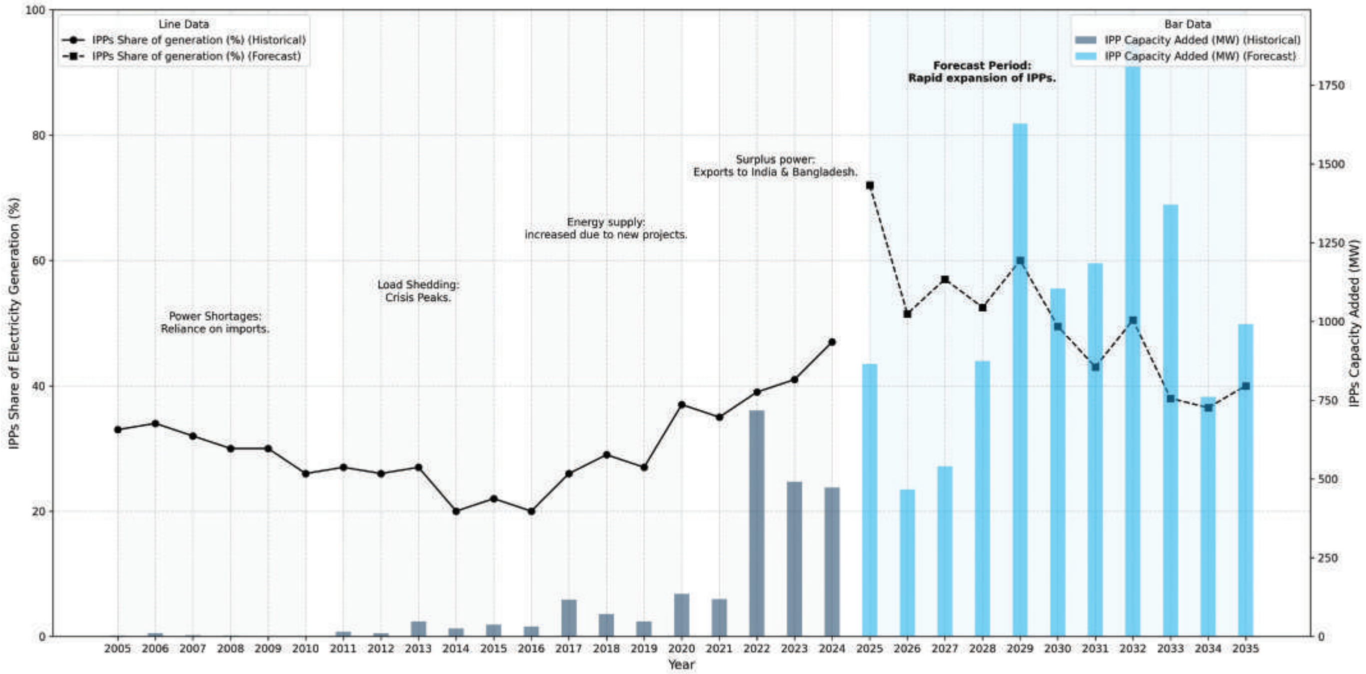

driven by moderate debt levels, strong remittance inflows, and robust foreign exchange reserves (FitchRatings, 2024).

The rise of Independent Power Producers (IPPs) has further expanded Nepal's energy sector, with sustained growth expected in the coming years.

The IPP model has also matured significantly, with 91 IPPs now listed on the Nepal Stock Exchange (NEPSE, 2024). Several major hydropower projects in Nepal follow the Build-Own-Operate-Transfer (BOOT) model, a widely used PPP structure that enables private sector investment while ensuring eventual state ownership (IBN, 2023). The Investment Board of Nepal (IBN) has played a key role in managing hydropower projects, with Arun III standing out as a major success. These projects, structured as PPPs using Power Purchase Agreements (PPAs), create predictable revenue models that attract institutional investors while supporting Nepal's energy export ambitions.

This thriving ecosystem - supported by key stakeholders such as Nepal Electricity Authority (NEA), Department of Electricity Development (DoED), Securities Board of Nepal (SEBON), Independent Power Producers' Association Nepal (IPPAN) - has strengthened Nepal's investment climate, ensuring surplus power production during monsoons and enabling cross-border electricity exports. Additionally, NEPSE, regulated by SEBON, has improved liquidity and exit opportunities, making IPPs increasingly attractive to equity investors. However, under Nepal's Public-Private Partnership and Investment Act (PPPIA), projects related to national security, public enterprises, joint

| Macroeconomic Indicators | Fiscal Year 2024 |
|---|---|
| **Debt to GDP** | 42.50% |
| **Overall BOP (surplus)** | USD 3.77 billion |
| **Remittance Inflow** | USD 10.86 billion |
| **Foreign Exchange Reserve** | USD 15.27 billion<br>(sufficient to cover goods import of 15.6 months) |




ventures, and privatization initiatives are explicitly excluded from PPP classification (National Planning Commission, 2011), limiting the scope of private sector participation in certain areas.

While Nepal has made significant progress in hydropower development and private-sector investment, scaling this growth requires addressing major barriers to foreign investment.

### Bridging the Gap to Scale FDI in Nepal

Nepal has immense potential to expand its clean energy sector, and the government's ambitious targets should be seen as aspirational rather than unrealistic. Beyond economic benefits, Nepal's energy transition is crucial in the fight against climate change.

Black carbon - the second-largest contributor to global warming after CO2 (Zarling & Bond, 2013) - accelerates glacial melt in the Himalayas, endangering water security for 1.3 billion people (World Bank, 2021). If global temperatures rise by 3°C, up to 80% of Himalayan glaciers could disappear, with devastating consequences for agriculture and global food security (Zargar, 2023). Scaling clean energy investment is not just about growth—it is essential to reducing emissions and protecting vital water resources. However, a critical question remains: Can Nepal's investment climate support this level of transformation?

While some domestic investors have skilfully navigated bureaucratic hurdles, large foreign investors—critical for Nepal's economic expansion—are less patient. This is reflected in Nepal's low FDI inflows compared to its regional peers.

[Insert Chart: "FDI as a Percentage of GDP in South Asian Countries (2018-2023)" (World Bank, 2023) (UNCTAD, 2024)]

Nepal's energy sector requires billions in annual investments. Hydropower projects alone need $1.3–$2.1 billion annually until 2040, while NEA requires $250–$500 million per year for capital expenditures until 2025 (World Bank, 2019).

Despite progress, Nepal's energy self-sufficiency declined from 85% in 2015 to 74% in 2020, increasing reliance on non-renewable imports (IRENA, 2015). Achieving Sustainable Development Goals by 2030 requires $18 billion annually (UNDP, 2018), with an estimated $46.5 billion needed over the next decade, including $20.5 billion from FDIs (Republica, 2018).

Meeting these goals would require a 50-fold increase in FDI inflows- a monumental leap under the current investment climate.

### What's Holding Back Institutional Investors?

As the first international institutional fund manager focused on Nepal, Dolma has over a decade's investment experience with combined hydropower and solar PV portfolio of almost 160MW. Success relied on a strong local team to manage bureaucratic hurdles, ensure Environmental, Social & Governance (ESG) compliance, and strengthen corporate governance. However, large-scale institutional investors typically lack such localized resources.

With Nepal nearing Least Developed Country graduation (United Nations, 2024), access to grants and concessional financing will decline. Tackling these investment barriers is no longer an option—it's a necessity for positioning Nepal as a regional leader in clean energy and sustainable development.

**Attracting Global Capital: The Investors Nepal Needs**

Global infrastructure investors like Brookfield and Macquarie manage hundreds of billions of US dollars, with dedicated strategies for Asia and renewable energy. These firms, operating as private equity funds, channel capital from major pension and insurance funds. Additionally, engaging private-sector international energy companies would be vital to diversify Nepal's investment and advance its renewable energy goals.

A key challenge is Nepal's lack of a proven FDI track record in both equity and debt. To attract international institutional investors, Nepal must prove capital can enter and exit smoothly while generating risk-adjusted returns. While ongoing investments may eventually strengthen investor confidence, successful FDI exits remain rare—a critical gap Nepal must address.

At this stage, Development Financial Institutions (DFIs)—such as BII (UK), FMO (Netherlands), and DFC (US)—and Multilateral Development Banks (MDBs) like IFC and ADB are vital. These government-backed entities can take greater risks than private investors, while maintaining strong governance and compliance standards. Although DFIs and MDBs alone cannot meet Nepal's massive FDI needs, their involvement enhances credibility and helps attract larger institutional investors over time.

DFIs and MDBs are already quite active in Nepal, with notable examples including IFC's renewable energy investments, FMO's equity stake in NMB Bank, DFI loans to banks and hydropower projects as well as Dolma's private equity funds, backed by multiple DFIs and IFC. These investments not only reshape Nepal's energy sector but also support regional cooperation by strengthening electricity export agreements with India and Bangladesh, fostering a cleaner, interconnected South Asian energy market. The regional export of Nepal's clean energy has the greatest impact on emissions reduction, as it directly replaces coal and thermal power in neighboring regions. By supplying renewable energy to heavily fossil-fuel-dependent grids, Nepal is playing a critical role in reducing regional air pollution and advancing South Asia's decarbonization efforts However, most – if not all - investments have yet to achieve successful exits and repatriation, which remains a key challenge.

To improve Nepal's investment track record and attract large-scale institutional capital, the government and financial ecosystem must streamline bureaucratic processes, ensure policy stability, and enhance investor protections. By addressing these barriers, Nepal can unlock its full investment potential, positioning itself as a competitive destination for global capital in clean energy and beyond.

**Cutting Through Bureaucracy: Clearing the Path for Investment**

One of the biggest challenges international investors faces in Nepal is delay due to bureaucratic red tape. The sheer number of government interactions required for compliance slows down investment, compounded by frequent political changes that reset bureaucratic processes. For instance, bringing FDI into Nepal currently requires up to seven levels of approval. In the past, Dolma encountered delays of up to 13 months just to bring in capital. While recent years have seen some improvements, further streamlining these approvals would significantly reduce delays and encourage more foreign investments.

Bureaucratic inefficiencies extend beyond capital inflows. Political interference and inefficiencies within institutions like IBN have caused prolonged delays. For example, one of Dolma's large-scale solar and battery storage projects was stalled for seven years—a clear deterrent for potential investors.

If bringing capital in is challenging, repatriating funds is even more difficult. Two of Dolma's hydropower companies listed on NEPSE have surpassed their lock-in periods, yet repatriation has been delayed by over seven months and counting. This is despite bilateral treaties guaranteeing tax treatment and capital repatriation rights. Notably, no equity investment by DFIs or MDBs in Nepal has achieved a successful exit. Some risks, like commercial failures, are unavoidable—but bureaucratic failures are preventable. For investors, barriers to exit are the biggest barriers to entry.

**Strengthening ESG Practices: A Key to Sustainable Investment**

Nepal's ESG ecosystem is evolving, with increasing emphasis on sustainable development. Regulatory progress has expanded ESG capacity, with Nepal Rastra Bank (NRB) introducing Environmental and Social Risk Management (ESRM) guidelines in 2018. These guidelines, which mandate financial reporting from 2022, aim to promote responsible investment, strengthen credit portfolios, and enhance market competitiveness.

In 2024, NRB launched the Green Finance Taxonomy, directing capital toward green economic activities, supporting green bonds, climate risk reporting, and financial sector capacity-building (NRB, 2024). Strong ESG practices not only attract investment (Duque Risales et al., 2021) but also promote Low Carbon Investment (LCI) by signalling a firm's commitment to sustainability (Lu & Li, 2024).

In Nepal, ESG-aligned investments are especially critical due to the direct link between emissions and glacial melt. The stakes are global—25% of the world's cereals are produced in river basins fed by Himalayan glaciers (LSE, 2023), meaning that reduced water availability can destabilize food production and supply chains worldwide.

By prioritizing clean energy and emissions reductions, Nepal can play a pivotal role in slowing climate change, preserving water resources, and ensuring long-term regional stability.

***Renewable Energy: The Backbone of Nepal's Green Transition***

Hydropower remains central to Nepal's clean energy future, with initiatives like IFC's Nepal Environmental and Social Hydropower Program ensuring sustainable development. Nepal's hydropower and solar resources offer energy self-sufficiency and export potential, as demonstrated by the 10,000 MW export agreement with India (SASEC, 2024). However, achieving these ambitious targets requires significant foreign investment.

Dolma Impact Fund has been at the forefront of ESG-aligned investments, with 159.5 MW of solar and hydropower projects, comprising 31% of its portfolio. These projects follow international ESG standards, reinforcing Nepal's investment potential. A notable example is the Seti Khola Hydropower Project (SKHP) in the Kaski district. To mitigate monsoon flood risks, the project resettled 27 households, providing better homes, education, healthcare, and job opportunities. This demonstrates how ESG principles not only reduce risks but also create long-term social benefits.

Nepal's commitment to ESG principles and successful projects like SKHP underscore its potential for sustainable development. Scaling these efforts will require strong governance frameworks, cross-sector collaboration, and active stakeholder engagement.

***Cumulative Impact Assessments: Protecting Nepal's River Basins***

Cumulative Impact Assessments (CIAs) are crucial for sustainable hydropower development, evaluating long-term environmental and social effects across multiple projects. Unlike traditional project-specific assessments, CIAs provide a basin-wide perspective, ensuring sustainable resource management.

A key example is the IFC study on the Trishuli River Basin (TRB), spanning 32,000 square kilometres in Nepal. Currently, the basin has 6 operational hydropower projects (81 MW), 7 under construction (286 MW), and 23 in planning. However, issues like habitat fragmentation, land degradation, water scarcity, and landslide risks are already surfacing. IFC's CIA framework aims to address these risks and guide sustainable hydropower development. (IFC, 2020).

NEA now mandates CIA compliance under environmental regulations. The Environmental and Social Management Framework (ESMF) and the Environmental Protection Act (2019) require thorough assessments before project approval (NEA, 2015). Additionally, before a hydropower project is approved, the government requires detailed feasibility studies, including techno-economic and market feasibility assessments, to ensure sustainability and financial viability (DoED, 2018).

**Conclusion**

Dolma fully supports Nepal's Energy Development Roadmap, which builds on the successes of IPPs and the broader energy sector. With strategic investments in clean energy, Nepal has a unique opportunity to become a regional leader in renewable energy and climate resilience. However, realizing this potential requires decisive action.

While legal reforms can help refine PPP models, immediate priority should be to demonstrate the viability of institutional FDIs. Success stories from hydropower, solar, and EV infrastructure investments will not only validate Nepal's investment climate but also pave the way for larger institutional investors to participate in the country's clean energy transition.

To achieve this, Nepal must:

- Reduce bureaucratic delays, particularly in capital inflows and repatriation, to enhance investor confidence.
- Ensure policy consistency, creating a stable and predictable regulatory environment.
- Strengthen ESG compliance, making Nepal an attractive destination for sustainable finance and climate-focused investments.
- Implement Cumulative Impact Assessments (CIAs) to ensure environmentally responsible hydropower expansion.

By removing these barriers and fostering a transparent, investor-friendly ecosystem, Nepal can scale its clean energy ambitions, reduce regional emissions, and contribute to slowing climate change. The greatest impact will come from exporting Nepal's renewable energy to coal-reliant neighboring regions, directly displacing fossil fuels and reducing pollution at a regional scale. Strengthening cross-border electricity trade with India and Bangladesh will further position Nepal as a key player in South Asia's sustainable energy transition.

With bold investments and policy improvements, Nepal is poised to not only achieve energy security but also safeguard water resources, support climate resilience, and drive long-term economic growth.

## Dolma Group Background

Dolma Group is a Nepal-focused investment company comprising Dolma Fund Management, which oversees two private equity funds: Dolma Impact Fund I and II. These investments have generated over 11,000 jobs in Nepal across sectors such as renewable energy, technology, and healthcare.

The group also includes Dolma Himalayan Energy, partnering with the Investment Board of Nepal (IBN) to develop a 245 MW (DC) solar farm with 80 MWh of battery storage. Founded in 2014, Dolma has played a leading role in advancing sustainable development in Nepal.

Aligned with Nepal's Energy Development Roadmap, Dolma is raising its third equity fund, the Dolma Climate Fund, to support renewable energy projects. Additionally, Dolma is collaborating with FCDO, GuarantCo/PIDG, and Standard Chartered Bank to issue Nepal's first international green bonds. This initiative will open access to international capital markets and expand debt capacity for renewable energy, aiming to mobilize over US$ 1 billion for Nepal.

## References


Anupam, B. (2024, November 21). With the start of trilateral hydropower trade, South Asia begins historic cooperation. The Diplomat. https://thediplomat.com/2024/11/with- start-of-trilateral-hydropower-trade-south-asia-begins-historic-cooperation/

Department of Electricity Development (DOED). (2018). Guidelines for study of hydropower projects. https://www.doed.gov.np/storage/ listies/December2019/guidelines-for-study-of-hydropower-projects-2018.pdf

Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social, and governance (ESG) scores and financial performance of multilatinas: Moderating effects of geographic international diversification and financial slack. Journal of Business Ethics, 168(2), 315-334.

Fitch Ratings. (2024, November 21). Fitch assigns Nepal "BB-" IDR; outlook stable. https://www.fitchratings.com/research/sovereigns/fitch-assigns-nepal-bb-idr-outlook-stable-21-11-2024

Gunatilake, H., Wijayatunga, P., & Roland-Holst, D. (2020). Hydropower development and economic growth in Nepal. Asian Development Bank.

Investment Board Nepal (IBN). (2023). Annual report 2023. https://ibn.gov.np/resources/details/annual-report-2023-9872

International Finance Corporation (IFC). (2020). Cumulative impact assessments of Trishuli River Basin. https://www.ifc.org/content/dam/ifc/doc/mgrt/report-ciatrishuli-may2020- executivesummary.pdf

International Finance Corporation (IFC). (2025). Performance standard 5. https://www.ifc.org/en/insights-reports/2012/ifc-performance-standard-5

International Renewable Energy Agency (IRENA). (2015). Energy profile. https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/ Asia/Nepal_Asia_

RE_SP.pdf

London School of Economics (LSE). (2023). Millions of farmers depend on meltwater from Himalaya glaciers. LSE Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/news/millions-of-farmers-depend-on-meltwater-from-himalaya-glaciers/

Lu, J., & Li, H. (2024). The impact of ESG ratings on low carbon investment: Evidence from renewable energy companies. Renewable Energy, 223, 119984.

National Planning Commission. (2011, March). White paper on public-private partnership (PPP). Government of Nepal.

Nepal Electricity Authority (NEA). (2015). Environmental and social management framework for power sector reform and sustainable hydropower development project. https://www.nea.org.np/admin/assets/ uploads/supportive_docs/ESMF-Executive-Summary-English-and-Nepali.pdf

Nepal Rastra Bank (NRB). (2024). Guidelines for financial sectors. https://www.nrb.org.np/contents/uploads/2024/01/Nepal-Green-Finance-Taxonomy-V1.pdf

Ministry of Finance. (2024). Macroeconomics updates. https://data.mof.gov.np/macroeconomicUpdates.aspx

Ministry of Energy, Water Resources, and Irrigation (MOEWRI). (2025). Urja Bikash Margachitra 2081. https://moewri.gov.np/storage/listies/January2025/urja-bikash-margachitra-2081.pdf

Republica. (2024, August 8). Nepal's roadmap to produce 28,500 MW by 2035. Nagarik Network. https://myrepublica.nagariknetwork.com/news/nepals-roadmap-to-produce-28500-mw-by-2035-6776cca85f9c9.html

South Asia Subregional Economic Cooperation (SASEC). (2024). India, Nepal sign long-term power trade deal. https://www.sasec.asia/index.php?nid=1565&page=news&url=ind-nep-sign-long-term-energy-deal

United Nations Conference on Trade and Development (UNCTAD). (2024). World investment report 2024. https://unctad.org/publication/world-investment-report-2024

United Nations Development Programme (UNDP). (2018). Needs assessment, costing and financing strategy for sustainable development goals in Nepal. https://www.undp.org/nepal/publications/needs-assessment-costing-and-financing-strategy-sustainable-development-goals-nepal

United Nations. (2024). Nepal graduation status | LDC Portal - International support measures for least developed countries. https://www.un.org/ldcportal/content/nepal-graduation-status

World Bank. (2004). Who cares wins, 2004-08 issue brief. https://documents1.worldbank.org/curated/fr/444801491483640669/pdf/113850-BRI-IFC-Breif-whocares-PUBLIC.pdf

World Bank. (2019). Energy infrastructure sector assessment. https://documents1.worldbank.org/curated/en/ 592481554093658883/pdf/Nepal-Energy-Infrastructure-Sector-Assessment.pdf

World Bank. (2021). Glaciers of the Himalayas: Climate change, black carbon, and regional resilience. https://documents1.worldbank.org/curated/en/976841622778070962/pdf/ Glaciers-of-the-Himalayas-Climate-Change-Black-Carbon-and-Regional-Resilience.pdf

World Bank. (2023). Benchmarking infrastructure 2023 in Nepal: Survey question analysis - Regulatory and institutional framework for PPPs. https://bpp.worldbank.org/content/dam/sites/data/bpp/cntrypdf/BI-2023-Nepal-PPP.pdf

World Bank. (2023). World development indicators. https://databank.worldbank.org/source/world-development-indicators

Zargar, A. (2023). Himalayan glaciers melting faster, threatening agriculture and water security. CBS News. https://www.cbsnews.com/news/himalaya-glaciers-melting-faster-study-warns-will-affect-us-all/

Zarling, J., & Bond, T. (2013). Black carbon: The second-largest contributor to global warming. Climate Change News. https://www.climatechangenews.com/2013/01/15/black-carbon-second-largest-global-warming-source/

# Project Risk and Role of Insurance in PPP Project Risk Management in Nepal

**Mr. Sunil Ballav Pant is the Chief Executive Officer of NLG Insurance Company Limited, a leading player in Nepal's insurance industry renowned for its innovation, client-centric solutions, and strong corporate governance. With a distinguished career spanning both the financial and risk management sectors, Mr. Pant has positioned NLG as a pioneer in expanding the scope of insurance to support national development priorities, including infrastructure and PPP projects. His leadership reflects a forward-thinking approach to integrating insurance solutions into Nepal's evolving project finance and investment frameworks. Particularly in the context of PPPs, Mr. Pant has been a vocal advocate for the strategic role of insurance in de-risking complex infrastructure undertakings and promoting investor confidence. Under his guidance, NLG has actively explored tailored insurance instruments to address risk-sharing, contingency liabilities, and operational assurance in large-scale public-private ventures. Through his work, Mr. Pant continues to contribute to building a resilient financial ecosystem that underpins Nepal's growth aspirations.**

**Introduction**

Insurance is a contractual arrangement in which an individual or entity (the insured) pays a premium to an insurance company (the insurer) in exchange for financial protection or reimbursement against specified risks or losses. At its core, Insurance is a system where people in a community pay monthly premiums into a shared fund. This fund is used to help those facing unexpected expenses like accidents, illnesses, or disasters. By sharing the cost, no one person bears the full burden of a big loss, making it affordable for everyone and strengthening families, communities, and society.

PPP projects are gaining popularity in Nepal to increase infrastructural development and service delivery. PPP projects are, however, risky in nature because of their complexity, long duration, and multiplicity of stakeholders. Such projects face a wide range of risks that can undermine their success, including political and regulatory uncertainties, financial fluctuations, construction delays, environmental challenges, and market demand variations. Political instability or sudden regulatory changes can disrupt the continuity of projects, while financial risks such as currency fluctuations or interest rate changes can impact project financing. Construction delays or unforeseen technical issues often lead to cost overruns, while environmental concerns like natural disasters or regulatory compliance can further complicate the execution of projects. Additionally, changes in market demand or economic conditions may affect the revenue generation anticipated from the project. These risks can lead to significant delays, cost increases, and even project failure if not adequately managed.

### Role of Insurance in Risk Management

Insurance plays a critical role in PPP projects by mitigating risks and ensuring the successful implementation and operation of these projects. PPPs involve collaboration between public entities (governments) and private sector companies to deliver infrastructure or public services. Given the long-term nature, high capital requirements, and complexity of PPP projects, insurance is essential to manage uncertainties and protect stakeholders. Proper management of risks is instrumental to the success of the project, and insurance is a very important means of financial risk management of these projects.

Insurance companies play an important role in the successful implementation of PPP projects by offering risk-mitigation products that protect the public and private stakeholders from financial risks.

Risk assessment and advisory services are some of the core activities of insurance companies. Insurers evaluate potential risks, analyse past history, and advise on mitigation strategies prior to the project's initiation. This helps stakeholders understand vulnerabilities and develop proactive solutions to mitigate them.

Besides, the insurance companies create customized insurance products to cover the specific risks of PPP projects. For example, infrastructure projects need bespoke coverage, such as construction risk insurance, political risk insurance, and liability insurance. By creating project- specific policies, the insurers make sure that critical risks are properly addressed.

Insurers also have a vital role in the provision of financial security and mobilization of private sector investment. Investors and lenders are not ready to invest in PPP projects because of the uncertainties. Nevertheless, extensive insurance coverage reduces financial exposure, reassuring stakeholders and enabling projects to be bankable.

Another important role played by insurers is enabling project financing. Banks and financial institutions usually make insurance a prerequisite to sanction loans for PPP projects. Insurance policies serve as risk-sharing mechanisms that make creditworthiness more credible and access to finance assured.

Large PPP projects are assisted by reinsurance from insurance providers to share risk among various insurance companies. Financial stability in terms of heavy claims or unexpected loss is assured with this arrangement to avoid any sole insurer covering everything.

Finally, insurers help ensure the long-term viability of PPP projects by underwriting operational risk and liability exposures. This coverage guarantees that unexpected downtime, whether due to equipment failure or third-party claims, does not undermine project viability. By reducing these risks, insurance firms help play a critical role in facilitating the seamless execution and longevity of PPP projects.

### Challenges in Implementing Insurance in PPP Projects in Nepal

Though the advantages of insurance are evident, there are several problems in its effective use in Nepal's PPP projects. One of the significant problems is the underdeveloped insurance market, which is in its developing stage and does not have the required products for sophisticated PPP project risks. Most of the insurance products in Nepal are traditional and doesn’t accommodate the specific risk profiles of PPP Project. For instance, an insurance product designed for the risks of a hydropower project differs from one suited to the risks of a tunnel construction project. The rates of insurance premiums are also high, and most stakeholders consider insurance to be an extra expense instead of a most desired risk management mechanism. In addition, the current regulatory framework lacks detailed guidelines on risk allocation using insurance in PPP projects, and therefore there is a lack of clarity on how the risks should be dealt with. Besides, Nepalese insurers have limited access to reinsurance, which undermines their capacity to insure the large risks involved in big PPP projects.

### Recommendations for Enhancing Insurance in PPP Risk Management

For the role of insurance in the risk management of PPP projects in Nepal to be improved, a few steps must be taken.

- Firstly, insurers must develop bespoke insurance products that respond to the specific risks involved in PPP projects.

These tailor-made policies will be capable of ensuring that the critical risks are properly addressed and offer the stakeholders the required protection.

- Secondly, the government needs to enhance regulatory frameworks by having transparent guidelines on insurance requirements for PPP projects. This will give stakeholders the required clarity on risk allocation and insurance coverage.
- Additionally, insurance products must adapt to the evolving nature of project contracts, transitioning from traditional contracts to EPC (Engineering, Procurement, and Construction) contracts.
- Moreover, emerging risks such as climate change and its associated impacts must be promptly and comprehensively addressed. The potential for additional claims arising from these new risks should be thoroughly discussed and appropriately incorporated within the insurance sector's framework.
- Furthermore, partnerships with international insurers can close coverage and expertise gaps so that Nepalese insurers have access to more sophisticated products and solutions.
- Additionally, the expertise of surveyors and reinsurance teams should be enhanced to strengthen the overall insurance framework.
- Finally, improved access to global reinsurance markets would enable Nepalese insurers to manage risks of large-scale PPP projects more comfortably. Following best international practice can render PPP projects in Nepal more feasible. For instance, the UK Private Finance Initiative (PFI) employs formal insurance arrangements to provide a broad spectrum of risk cover, whereas Canada's PPP Framework makes the inclusion of performance-based insurance cover obligatory. Following these international practices, Nepal can strengthen its risk management regime and induce greater investment in PPP projects.

**Conclusion**

Nepal PPP projects face various risks that may affect their successful execution. Insurance is an important instrument in controlling these risks through the provision of financial risk mitigation against uncertainty. Nevertheless, issues surrounding the insurance market's small size, lack of regulation, and low awareness must be tackled to enhance the effectiveness of insurance in Nepal. By adopting international best practices, enhancing regulation, and cooperation with foreign reinsurers, Nepal can greatly enhance the resilience and sustainability of PPP projects so that they are a long-term success.

# “We aim to position Nepal as a clean energy hub in South Asia”

**MR. DIPAK KHADKA**
Hon’ble Minister for Energy, Water Resources and Irrigation

**Mr. Dipak Khadka, Hon'ble Minister for Energy, Water Resources, and Irrigation, is a visionary leader driving the country's energy transformation agenda. As the Member of Parliament, Mr. Khadka has long championed infrastructure-led economic growth. Under his leadership, the ministry is spearheading bold initiatives to enhance hydropower generation, diversify renewable energy sources, strengthen regional energy cooperation, and attract foreign and private investment through public–private partnerships. Committed to inclusive, green, and sustainable development, Mr. Khadka envisions positioning Nepal as a regional clean energy hub, ensuring energy access for all, and advancing structural reforms to deliver resilient, future-ready energy systems. The following are selective insights from an exclusive interview with the Hon'ble Minister, reflecting his perspectives and priorities for Nepal's energy future.**

**Nepal is heading toward a new era of energy development. What is your core vision for the hydropower sector and overall energy transformation?**

Energy development in Nepal is considered the backbone of national prosperity. My core vision is to develop a sustainable, inclusive, and self-reliant energy system by maximizing the utilization of our natural resources, particularly hydropower. We view hydropower not merely as a source of electricity generation but as a vital foundation for industrialization, job creation, import substitution, and export promotion. Accordingly, we are committed to adopting eco-friendly technologies under the "Green Growth" concept, strengthening public–private partnerships, and ensuring policy stability through institutional and legal reforms. This era of energy transformation is an opportunity to redefine Nepal—not just as a consumer nation but as a regional energy hub.

**Nepal has taken commendable steps toward regional energy cooperation. In your view, how will these agreements define Nepal's role in South Asia's clean energy future?**

Regional energy cooperation will significantly contribute not only to Nepal's energy future but also to energy security across South Asia. With a long-term agreement to export 10,000 MW of electricity to India, a 5,000 MW understanding already in place, and the commencement of a 40 MW hydropower export to Bangladesh, along with cross-border transmission line collaboration, Nepal is poised to become a central player in regional energy trade. Leveraging our comparative advantage in hydropower, we aim to position Nepal as a "Clean Energy Hub". These collaborations will strengthen energy diplomacy, attract foreign investment, and accelerate environmentally responsible development. Through clean energy, Nepal can transform its geopolitical position into an economic advantage.

**Building investor confidence is critical to energy infrastructure growth. What specific reforms is your ministry undertaking to create an investment-friendly environment for Independent Power Producers (IPPs)?**

Energy infrastructure cannot grow rapidly without private sector trust and participation. Our ministry has introduced legal, policy, procedural, and financial reforms to support IPPs. We are making the Power Purchase Agreement (PPA) system more transparent, moving away from the 'Cost-Plus' model to competitive bidding. A single-window service delivery system is being prepared, enabling IPPs to access permits, environmental approvals, land acquisition, and tree clearance from a centralized platform. We have also developed policies to ensure loan guarantees, government backing, and the security of foreign investments. Our goal is to create an environment of trust where investors feel assured that their capital is secure and their returns are guaranteed.

**How are public revenue policies and investment planning coordinated to support large hydropower projects through Public–Private Partnerships (PPP)?**

Large hydropower projects cannot rely solely on government investment. Thus, we are advancing PPP as a strategic model. Under PPP, the government provides infrastructure, equity participation, and long-term financial arrangements. Tax incentives, clarity on income tax liabilities, and customs exemptions have been incorporated into the revenue policy to facilitate PPP projects. We are also proposing a dedicated fund in the national budget for PPP projects to support feasibility studies, land acquisition, and initial promotion costs. Collaborating with private investors and international financial institutions, we are integrating these projects into long-term financial management frameworks.

As energy diversification becomes necessary, what strategies does the government have for solar, wind, and other renewable sources alongside hydropower?

Diversification is essential for energy security. A system dependent solely on hydropower is vulnerable to the impacts of climate change. Our strategy is to parallelly invest in solar, wind, biogas, and green hydrogen. Under the "Renewable Energy Mix Policy," we aim to ensure that 10–15% of total electricity generation over the next five years comes from sources other than hydropower. We are implementing the Feed-in Tariff system, installing rooftop solar systems on public buildings, and constructing mini-grids in remote areas. Wind measurement programs are also underway to prepare for future large-scale wind projects.

**To implement the ambitious target of 28,500 MW electricity generation, how is the government strengthening the transmission & distribution systems?**

Meeting the 28,500 MW generation target is not just about production—it requires robust transmission and distribution systems. We are giving strategic priority to strengthening transmission infrastructure. Currently, over 1,500 kilometers of 400kV and 220kV transmission lines are under construction. Bilateral agreements with India for cross-border transmission lines have been signed. The Nepal Electricity Authority and NEA Engineering are preparing a Corridor-Based Transmission Master Plan. In distribution, we are introducing smart grid technology, loss reduction programs, and geography-based line improvement plans. These structural improvements will enhance both energy trade and local consumption efficiency.

Project delays and cost overruns remain challenges. What lessons have been learned from past projects, and how are you addressing them?

We have learned critical lessons from projects like Upper Tamakoshi, Trishuli-3A, and Chilime. Delays often stem from inadequate initial preparation, land acquisition issues, environmental assessment delays, and contractor selection inefficiencies. We now require projects to meet "Project Readiness Criteria" — including feasibility, design, environmental assessment, and financial indicators — before construction begins. We have enforced the EPC model, time-bound contracts, and mandatory performance bonds. The Project Monitoring Information System (PMIS) has been developed for real-time monitoring. Through capacity building, better documentation, and increased project team accountability, we are moving toward timely project delivery.

**Ensuring energy access for all is a national priority. How is your ministry addressing energy needs in remote areas through alternative solutions?**

Energy access should not be limited to urban centers. Our goal is to provide every Nepali household with safe, sustainable, affordable, and reliable energy. In remote areas where grid expansion is not feasible, we are promoting alternative energy solutions under the Rural and Renewable Energy Program (RERA). Technologies like solar mini-grids, micro-hydro, biogas, and improved cookstoves are being supported with subsidies. In collaboration with provincial and local governments, solar systems are being distributed with up to 75% subsidies. Women and marginalized communities are given priority. Our target is to achieve 100% energy access within the next two years.

**Which two or three key initiatives under your leadership will have a long-term impact on Nepal's energy landscape?**

Under my leadership, several initiatives will bring long-term transformation:

1. **People's Hydropower Program:** This program allows

ordinary citizens to invest in hydropower projects through small share offerings, promoting financial inclusion, ownership, and local cooperation. It offers collateral-free shares (ranging from NPR 200,000 to 500,000) to low-income groups. The three-fold impact of this program are:

a. Increases local acceptance and reduces project obstruction.
b. Brings financial returns to the general public through dividends.
c. Enhances public participation in national energy ownership, contributing to long-term stability.
d. This transforms hydropower from merely an engineering project to a socio-economic movement.

2. **Cross-Border Transmission Line Development:** Electricity production alone does not bring value—transmission capacity and market access are key. Strategic transmission projects like Dhalkebar–Muzaffarpur and New Butwal–Gorakhpur lines with India, and infrastructure with Bangladesh, are underway. Benefits include:
    a. Ensured electricity export — earning foreign currency and reducing imports.
    b. Easier access to PPAs for private producers.
    c. Strengthened energy diplomacy, positioning Nepal at the center of the regional energy market. These lines are not just infrastructure—they are bridges to energy self-sufficiency at the international level.
3. **South Asian Energy Trade Agreements:** A 25-year long-term electricity export deal with India provides foreign exchange earnings and project financing stability.
4. **Renewable Energy Policy 2081 (2024 AD):** Offers legal, structural, and financial clarity for alternative energy development.
5. **PPP Hydropower Project Reforms:** Introduced a risk-sharing framework for major projects (e.g., Tamor, Karnali Chisapani) under the PPP model.

## PPP IN NEPAL'S ENERGY SECTOR

# Role of IPPs

Mr. Uttar Kumar Shrestha is the Chief Executive Officer of Butwal Power Company Ltd. He previously served as Managing Director of Nepal Electricity Authority, contributing over 20 years in various leadership roles. With expertise in hydropower development, project financing, and power purchase agreements, he has worked extensively with bilateral, multilateral, and local financial institutions. He has also served as a member of Electricity Tariff Fixation Commission, appointment by the Government of Nepal.

Mr. Shrestha is a Fellow Chartered Accountant (India), holds an MBA from Tribhuvan University, and actively participates as an expert in various national and international energy forums. He currently serves on the boards of several hydropower companies and IPPAN's Executive Committee.

Ms. Swasti Aryal is an experienced professional in Nepal's hydropower and renewable energy sectors, currently leading the Planning and Monitoring unit at Butwal Power Company Ltd. With over 15 years of experience and academic qualifications in electrical engineering, MBA, and a certificate course in large power systems, she has contributed to hydropower project planning, monitoring, power trading and project risk assessments. She also plays a key role in the company's strategic management, and solar and pilot green hydrogen initiatives at BPC.

Ms. Aryal has also worked with government agencies and non-profit organizations on clean energy programs including biogas, solar, e-cooking, and waste-to-energy, focusing on business development, program evaluation, and enhancing energy access.

Nepal's energy sector has long been a cornerstone of its development trajectory, with a heavy reliance on hydropower resources. Public-Private Partnerships (PPPs) have emerged as a critical mechanism for scaling energy production and ensuring sustainable growth. Among the key contributors to this effort are Independent Power Producers (IPPs), whose involvement has reshaped the dynamics of Nepal's energy landscape. This article delves into the current energy mix in Nepal, the pivotal role of IPPs, the contributions of Butwal Power Company (BPC) as a leading IPP, the challenges faced by these producers, and the opportunities that lie ahead.

**Current Energy Mix and Reliance on Hydropower**

Nepal's energy mix is predominantly characterized by its heavy reliance on hydropower, which accounts for over 95% of the country's electricity generation. The country's abundant water resources, with numerous rivers offering vast potential for hydroelectric projects, place Nepal among the nations with the highest hydropower potential in the world, estimated at around 83,000 MW, of which approximately 42,000 MW is economically viable. As of the end of the fiscal year 2023/024, Nepal's total installed generation capacity has reached 3,157 MW, including isolated power plants. Of this, IPPs contribute 1,915 MW from hydro and 82 MW from solar, while the Nepal Electricity Authority (NEA) holds 583 MW of hydro, 25 MW of solar, and 53 MW of thermal power. Additionally, NEA's subsidiaries add 493 MW from hydropower. However, the country's hydro capacity still represents only 6.96% of its techno-commercially feasible potential (Nepal Electricity Authority, 2024).

Despite this growth, Nepal's reliance on hydropower has significant implications. The seasonal variability of river flows, particularly during the dry season when water levels drop, poses a challenge to consistent electricity supply. This variability necessitates boosting internal energy consumption through energy infrastructure improvement. Expansion of cross-border transmission lines, along with agreements for exporting up to 10,000 MW of power to India and a tripartite agreement with Bangladesh, are key milestones (Kathmandu Post, 2024). Additionally, developing storage, pump-storage, and solar projects will balance the system and ensure the reliability of the power market. While renewable energy sources like solar currently represent a small share of the energy mix, the government is taking steps to diversify energy sources by encouraging private sector involvement in developing other renewables through new initiatives and policy reforms. Additionally, Nepal has embarked on ambitious plans to develop large storage-type hydropower projects such as the 1200 MW Budhi Gandaki Hydropower Project, which aims to address seasonal supply fluctuations. Despite these initiatives, the heavy reliance on run-of-the-river hydropower plants underscores the need for greater diversification and innovation in Nepal's energy sector.

According to the 16th Periodic Plan, 98% of the population now has access to electricity, with 96.7% connected to the grid, while 1.3% rely on isolated off-grid systems (solar, wind, and micro hydro). Per capita electricity consumption has reached 369.58 kWh (Water and Energy Commission Secretariat, 2024). Nepal's domestic energy consumption grew by 9.46%, with significant increases in both electricity imports from India (3.38%) and exports (44.57%) (Nepal Electricity Authority, 2024).

Building on these advances, Nepal's expanding electricity access and trade potential align well with global climate goals. The COP 29 emphasizes securing a new goal on climate finance, empowering nations to take stronger climate action, reducing greenhouse gas emissions, and building resilient communities. COP 29 presents Nepal with an opportunity to secure climate finance and promote renewable energy, particularly hydropower, which supports its low-carbon goals, energy security, and sustainable development while addressing global climate challenges.

**Role of Independent Power Producers (IPPs)**

IPPs have become a cornerstone of Nepal's energy development strategy. As entities that are privately financed and operated, IPPs contribute significantly to electricity generation, helping to bridge the gap between growing energy demand and limited public resources. As of 2023, IPPs contribute around 76 percent of Nepal's total electricity generation, a testament to their crucial contribution (Chaudhary, 2024). As of last fiscal year, IPPs have successfully installed projects with a total capacity of 1,997 MW. Furthermore, projects with a combined capacity of 3,270 MW are under construction, while projects totaling 3,900 MW are in various stages of development (Nepal Electricity Authority, 2024). Likewise, IPPs have invested around NPR 13 trillion, in terms of debt and equity in completed and under-construction hydro-projects till 2022/23 (IPPAN, 2024). The rise of IPPs in Nepal's energy sector can be attributed to the government's liberalization policies in the 1990s, which opened the sector to private investment. Likewise, 2049 Electricity Act of Nepal introduced provisions that opened the electricity sector to greater private sector participation, providing regulatory clarity and opportunities for investments (MoEWRI, 1992).

IPPs have mobilized significant resources for the development of small-to-medium-scale hydropower projects. *By involving private capital, IPPs have reduced the financial burden on the government and accelerated the pace of energy infrastructure development.* Another critical contribution of IPPs is the introduction of advanced technologies, expertise and practices. Through collaboration with international partners and adoption of global standards, IPPs have enhanced the efficiency and reliability of power generation. Beyond their economic impact, hydropower projects developed by IPPs often bring about positive socio-economic changes in rural communities. This includes job creation, infrastructure development, and improved access to electricity, contributing significantly to the overall development and well-being of these areas. The collaboration between IPPs and the local communities underscores the multifaceted benefits of private sector involvement in Nepal's hydropower sector.

Moreover, IPPs foster competition within the energy sector, which benefits consumers by improving service quality and ensuring competitive pricing. The competitive bidding process for PPAs encourages IPPs to innovate and optimize costs. This competitive environment also attracts foreign direct investment (FDI), bringing in not only capital but also technical expertise.

**Role of BPC towards Energy Sector as an IPP**

BPC stands out as a prominent player among Nepal's IPPs. Established in 1966, BPC has been at the forefront of hydropower development in the country, with a mission to contribute to sustainable energy production and rural development. The Company's pioneering efforts in hydropower generation have set benchmarks for the industry and demonstrated the viability of private sector involvement in energy infrastructure.

BPC has pioneered and played a key role in advancing Nepal's hydropower sector. Under the leadership of Norwegian hydropower expert Mr. Odd Hofton, BPC introduced modern hydropower technology through its key projects, including the 9.4 MW Andhikhola and 12 MW Jhimruk Hydropower Plants, both of which showcase BPC's commitment to rural electrification and community engagement. These flagship projects, not only contribute to the national grid but also power local industries and communities in Syangja, Palpa, Pyuthan, and Rolpa districts, serving approximately 64,000 households through BPC's own distribution network. Through these initiatives, BPC has demonstrated how hydropower can be leveraged for multifaceted development, addressing not just energy needs but also social and economic challenges.

BPC's contributions extend beyond power generation and distribution, encompassing significant community engagement efforts. These include promoting improved agricultural and energy practices, providing skill development training, upgrading irrigation and road infrastructure, supporting livelihoods, and undertaking environmental conservation activities. The Company prioritizes local employment, with around 70% of its workforce in project areas sourced locally. BPC holds certifications in three ISO standards: 9001:2015 for Quality, 14001:2015 for Environment, and 45001:2018 for Occupational Health and Safety (OH&S), reflecting

its strong commitment to quality, environmental sustainability, and employee well-being. By adhering to international environmental and social standards, BPC has established itself as a socially responsible corporate entity, recognized for its dedication to communities, the environment, and its workforce.

BPC, one of Nepal's oldest and most prominent hydropower companies, brings years of experience to the development of hydroelectric energy. Starting with the 1.024 MW Tinau Power Plant, which electrified Butwal city, BPC has, over its six-decade history, become a key contributor to Nepal's energy landscape with 116 MW of operational projects and over 800 MW projects in various stages of development. This accounts for approximately 3.67% of Nepal's total installed hydropower capacity. In partnership with Chinese investors, BPC is developing three hydropower projects in the Marsyangdi Basin using a cascade model. These projects have a total installed capacity of 601 MW and are expected to produce approximately 3,500 GWh of energy annually. Meanwhile, the 30 MW Nyadi Hydropower Plant is operating smoothly, with BPC holding an equity capacity of 55 MW, which adds value to the national economy. BPC also has additional projects in the pipeline, aiming to achieve sustainable growth in Nepal's hydropower sector and support the government's energy generation targets. BPC promoted Himal Power Limited in partnership with Norwegian investors to develop the 60 MW Khimti Hydropower Project under the BOOT model. This is Nepal's first private sector and FDI-funded project in the hydropower sector. The 135 MW Manang Marsyangdi Hydropower Project, financed by FDI from Exim Bank of China, is another example of BPC's ongoing efforts to attract foreign investment in Nepal's energy sector.

Over decades, BPC has accumulated valuable knowledge and experience in generation and distribution. The company's engineers gain technical expertise through its consulting business and hands-on experience in manufacturing, construction, repair & maintenance and management through project companies, subsidiaries and associates. Many engineers trained at BPC have gone on to lead hydropower projects domestically and internationally. Professionals with experience at BPC now oversee operations of hydropower plants across Nepal, enhancing the sector's overall technical capacity. BPC's contributions to Nepal's energy sector extend far beyond power generation. By integrating energy infrastructure development with community-focused initiatives, sustainable practices, and capacity building, BPC has solidified its role as a leader in the country's hydropower sector. While its generation capacity may not yet rival the largest players, BPC's value addition across multiple dimensions positions it as a cornerstone of Nepal's energy and development landscape.

### Challenges Faced by IPPs in Nepal

Despite significant contributions, IPPs in Nepal face numerous challenges that hinder their potential. These challenges range from regulatory and financial hurdles to infrastructure and environmental constraints:

***Regulatory hurdles*:** IPPs in Nepal face lengthy and complex approval processes that often delay project implementation. The lack of consistency in policies and frequent changes in regulatory frameworks create uncertainties for investors and developers. The environmental study process is particularly time-consuming, requiring approvals from two ministries and often taking over two years to complete. Environmental clearances and land acquisition approvals can take years, involving 8 ministries, 29 departments and 300 tables. Forest-related issues, such as obtaining permission for tree cutting, require cabinet-level approval and the mitigation measures associated with tree cutting, further delaying progress.

***Financing constraints*:** Access to financing remains a challenge for IPPs. High-interest rates, lack of collateral, and limited access to international financial markets make securing funding challenging. The absence of risk-sharing mechanisms further discourages private investments in hydropower. Although the current practice outlined in the PPA policy is "Take or Pay," NEA has been implementing a "Take and Pay" provision for many hydropower projects developed by IPPs, in conditions where NEA delays transmission line construction, and the projects evacuate power to the NEA system through alternative arrangements. This approach has posed more challenges for developers in securing project financing and in overall project development.

Political instability and inconsistent policies deter foreign investors in the hydropower sector. The absence of a stable regulatory framework and bankable PPAs in foreign currency remain critical barriers. Recent amendments to the hedging policy lack clarity on key aspects, such as rates, sharing ratios, and implementation, making it less attractive to foreign investors. Delays in finalizing Project Development Agreements (PDAs) and disputes over PPA terms further discourage FDI in the sector.

***Transmission infrastructure deficiencies*:** The limited transmission infrastructure and inadequate grid connectivity pose significant challenges in evacuating power generated by hydropower projects. Capacity constraints within both domestic and cross-border transmission systems hinder the efficient transfer of electricity from various river basins. These infrastructure deficiencies create risks for power evacuation, particularly for hydropower projects that are currently under construction, potentially limiting their ability to deliver generated electricity to the grid.

***Social risks*:** The success of hydropower projects in Nepal relies heavily on the cooperation of various stakeholders, particularly local communities. These communities frequently seek a share of the benefits generated by the projects, leading to potential conflicts. Disputes over access to natural resources can drive up costs and cause delays, as extended timelines and additional negotiations may be required. Furthermore, local demands for additional contributions from the project may arise periodically, adding complexity to project implementation.

***Resources delay*:** The timely availability of critical resources, such as explosives, is essential for the smooth progress of hydropower projects. However, delays in the supply of explosives have significantly disrupted the construction timelines of several projects, leading to increased costs. The inability to complete these projects on schedule forces private sector developers to incur substantial penalties, further straining their financial resources. Many hydropower projects, primarily undertaken by the private sector, have been severely impacted by India's failure to supply explosives through the Nepal Army, exacerbating the challenges faced by developers and delaying project completion.

***Seasonal variability*:** The reliance on ROR projects leads to fluctuating electricity supply, particularly during the dry season and surplus during wet seasons. To address this, Nepal must prioritize the development of storage-based hydropower projects to ensure a stable year-round supply. Additionally, investing in cross-border transmission infrastructure and establishing long-term power trade arrangements with India and Bangladesh are essential for efficiently exporting surplus electricity to the South Asian region.

Despite these challenges, IPPs remain committed to advancing Nepal’s hydropower potential. Addressing these issues through streamlined policies, enhanced infrastructure, and a more stable investment environment is essential to unlocking the full potential of Nepal's energy sector.

**Opportunities for IPPs & PPP Contribution**

***Opportunities for IPPs***

Nepal's hydropower sector offers immense opportunities for IPPs, supported by abundant untapped water resources, rising domestic energy demand, and a favorable environment for regional energy trade. Electricity consumption in Nepal has grown significantly, from 3.72 billion units in FY 2015/16 to 10.02 billion units in FY 2023/24, marking an increase of 6.51 billion units in just eight years (Nepal Electricity Authority, 2024). However, per capita electricity consumption remains low at 400 kWh and the per capita income is $1,433.93 (MoF, 2024), one of the lowest in South Asia, underscoring the need for economic development and energy access improvements.

The government has prioritized hydropower development through supportive policies and strategic roadmaps that emphasize private sector participation. Key initiatives include expanding the electricity distribution network, promoting the adoption of electric vehicles, and fostering industrialization to drive domestic consumption. Nepal’s strategic location also enables it to capitalize on regional energy trade. The Long-Term Power Trade Agreement with India, targeting the export of 10,000 MW over the next decade, and the 40 MW power trading agreement with Bangladesh (Republica, 2024) are significant milestones in this effort. Likewise, under the Government of Nepal's Energy Development Roadmap-2081, the country aims for 100% electrification within a year and 28,000 MW of power generation by 2035. The plan includes expanding transmission networks, internal consumption to 13,500 MW, exporting 10,000 MW to India and 5,000 MW to Bangladesh, and increasing per capita electricity consumption to 1,500 kWh.

Technological advancements in hydropower generation are enhancing efficiency and reducing costs, making projects more attractive to private investors. These innovations, combined with growing domestic demand and lucrative export opportunities, position Nepal as a promising market for IPPs. By leveraging these opportunities, private players can play a critical role in meeting Nepal’s energy goals while contributing to regional power integration. The sector’s potential to simultaneously boost internal consumption and establish Nepal as a regional energy hub offers big opportunities for IPPs to drive sustainable economic growth and energy security in South Asia.

***Enhancing IPP and PPP Collaboration***

PPPs play a crucial role in addressing key challenges faced by IPPs, such as financing, risk-sharing, and regulatory hurdles. These partnerships provide financial support by leveraging both public and international funds, which are essential for large-scale hydropower projects requiring significant capital. PPPs also help share risks associated with land acquisition, environmental clearances, and political stability, which are common obstacles in hydropower development. By streamlining regulatory processes, PPPs ensure timely project approvals and minimize delays, which are vital for maintaining project timelines and boosting investor confidence. Additionally, engaging local communities and addressing social impacts promotes inclusive development, ensuring long-term project sustainability. In practice, the government grants hydropower generation licenses to IPPs for a period of 35 years, extendable by up to 15 years at the government's discretion. This highlights the BOOT modality, where IPPs own and operate the projects for a predefined period before transferring them back to the government, reflecting the PPP approach in Nepal's hydropower sector. Talking specifically about BPC, its privatization in 2003 stands apart from traditional privatization, as BPC was transferred to the private sector through a PPP model on a competitive basis. This represents a distinctive example of a brownfield PPP, involving the utilization of existing government assets, in contrast to greenfield projects. The insights gained from this model provide a valuable reference for future initiatives, offering a potential framework for sustained private sector involvement in brownfield PPPs, while ensuring the long-term sustainability of government assets with appropriate modifications. Likewise, the mitigation initiatives implemented by BPC in its project areas; Andhikhola Water User Association (AKUWA) and Social Upliftment Program (SUP) follow PPP model, involving BPC and the public. AKUWA focuses on irrigation to the local farmers, while SUP improves social welfare through enhanced education, healthcare, and infrastructure. This collaboration has fostered sustainable community development and empowerment

The Public Private Partnership and Investment Act, 2019 prioritizes hydropower by promoting private and foreign investment through tax incentives, streamlined approvals, and financing models like BOT and BOOT. It ensures feasibility studies, equitable risk-sharing, and compliance with environmental and social standards. The Act also facilitates dispute resolution, encourages joint ventures, and emphasizes transparency, aiming to harness Nepal's hydropower potential for domestic use and export. Recognizing the importance of hydropower development, the government has prioritized the infrastructure sector in its annual budget, with a focus on hydropower generation, transmission line expansion, rural electrification, industrial development, and overall capital formation. These investments aim to create a conducive environment for IPPs and PPPs to thrive and play a central role in the country's energy sector. By fostering collaboration between IPPs and PPPs, Nepal can unlock its hydropower potential, meeting domestic energy needs and creating lucrative export opportunities.

The combination of PPP frameworks, policy support, and targeted investments will provide a strong foundation for Nepal to capitalize on its hydropower resources, potentially having a seven-fold impact on the country's economy.

**References**

IPPAN. (2024). Energy Statistics of Nepal 2024. In IPPAN, *Nepal's Energy Statistics* (Vol. 1). Kathamndu: Research and Development Fund, Independent Power Producers Association Nepal.

Kathmandu Post. (2024). *Nepal signs deal with India to export 10,000 MW power in 10 years*. The Kathmandu Post, National News. Kathmandu : The Kathmandu Post. Retrieved January 17, 2025, from https://kathmandupost.com/national/2024/01/04/nepal-india-ink-10-year-10-000mw-power-trade

MoEWRI. (1992). *Electricity Act, 2049 (1992)*. Government of Nepal, Ministry of Energy, Water Resources and Irrigation. Kathmandu: Government of Nepal. Retrieved from https://moewri.gov.np/storage/listies/May2020/electricity-act-2049-english.pdf

MoF. (2024). *Per Capita GDP (FY 2023/24). Macroeconomic Indicators Dashboard*. Government of Nepal, Ministry of Finance. Singhadurbar, Kathmandu : Government of Nepal.

Nepal Electricity Authority. (2024). *NEA Annual Report 2023/24*. Durbar Marg, Kathmandu: Nepal Electricity Authority.

Republica. (2024, November 17). 40 MW export to Bangladesh: Nepal's leap in power trade. *MyRepublica - Economy*. Retrieved from https://myrepublica.nagariknetwork.com/news/40-mw-export-to-bangladesh-nepals-leap-in-power-trade-67394b36d76a3.html

Water and Energy Commission Secretariat. (2024). *Energy Sector Synopsis Report 2024*. Singhadurbar, Kathmandu: Government of Nepal.

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## CHILIME HYDROPOWER COMPANY

# A successful PPP Model in Hydropower Development

**Mr. Subhash Kumar Mishra is a distinguished figure in Nepal's energy sector and served as the Former Managing Director of Chilime Hydropower Company Limited—one of Nepal's pioneering Independent Power Producers (IPPs). A veteran of the Nepal Electricity Authority (NEA), Mr. Mishra brings over three decades of experience in strategic leadership, hydropower development, and public-private collaboration. His expertise spans from project conceptualization and financial structuring to operational management of major infrastructure initiatives. Under his stewardship, Chilime has not only fortified its legacy as a successful first-generation PPP model but also evolved into a cornerstone of Nepal's hydropower ambition. Mr. Mishra's commitment to sustainable and inclusive energy development has made him a respected voice in policy discussions and a mentor to many in the power and infrastructure sectors. Known for his principled leadership and vision for national self-reliance in energy, Mr. Mishra exemplifies the transformative power of effective public-private partnerships in Nepal's journey toward resilient and sustainable growth.**

### The advent of PPP model in hydropower development in Nepal

Prior to the enactment of Electricity Act, 2049 the task of electricity development in Nepal had been largely undertaken by the government with the help of financial assistance from bilateral and multilateral foreign agencies. However, to start a project such foreign-aid financing had been too tough and time consuming. This resulted in the very slow pace of the development of electricity sector in the country. On the other hand, the demand for electricity was rising such that the available installed power capacity was too short to meet the demand pushing the country into the huge power cuts.

The Electricity Act, 2049 paved the way for involvement of private sector including Foreign Direct Investment (FDI) in the electricity development in Nepal. Initially, two companies namely, Himal Power Company and Bhotekoshi Hydropower Company channelized FDI along with partnership with local private sectors in BOOT modality for construction and operation and management of hydropower plants (60 MW Khimti HEP and 39 MW HEP) that enhanced electricity generation in the country. Gradually, the development of small and medium sized hydropower projects gained momentum with domestic investments.

In this background, Chilime Hydropower Company was established for the development and operation and management of 22.1 MW hydropower project in Rasuwa district in PPP model by mobilizing domestic financial resources-equity as well as debt required for the construction of the project.. The Chilime hydropower company ltd. was conceptualized to undertake a medium sized hydropower project with the equity participation of the public sector utility (Nepal Electricity Authority) as well as general public including local communities and employees of the company and utility.

**Establishment of Chilime**

Chilime was one of the first-generation PPP hydropower projects, and the first one with hundred percent domestic financing after the enactment of the Electricity Act, 2049 (Khimti I and Bhotekoshi projects were developed with foreign investments).

Chilime Hydropower Company was established on 31 October 1995 under the prevailing Company Act, 2021. Nepal Electricity Authority (a fully owned government organization or the “public” entity) was the main promotor of the company with the 51% shareholding. Of the remaining 49% shares, 25% were allocated to the board directors (incumbent or former) and staffs (incumbent or retired) of Nepal Electricity Authority and 24% was allocated to the general people and institutionalized organizations. Out of 24% share allocated to general public was divided among the general people and the project affected people in the segments of 14% and 10% respectively. Thus, Chilime became the first public hydropower company to allocate shares to the project affected people. It also set a new paradigm for the general people to invest in hydropower companies.

**The initial challenges of Chilime**

While embarking for the first time in a public company model for the development of hydropower project in Nepal, several issues and challenges emerged such as:

- Whether the expected investment in the form of equity shares would be or not subscribed by the general people;
- Whether the requisite loan amount would be available in the country in such a new venture;
- Whether the financial institutions in Nepal would have confidence in hydropower company to debt financing as it was totally new sector for them;
- Whether the requisite transmission line to evacuate the electricity would be in place by the time of project completion;
- Whether the project would be completed within the available budget (available quantum of equity and loan), if not, how to arrange the additional funding;
- How to build confidence of the government and the local people that the project would in the realized and built;
- Whether the project could be developed with the technical support only from the domestic engineers/technicians;

It had been very hard for the company and the promoters to overcome all the challenges and to move on. As a result of the unstinting effort and Power Purchase Agreement with NEA, which provides market guarantee through 100 percent power off-take and payment, Chilime Hydropower Co. successfully completed and commissioned the 22.1 MW hydroelectric power plant with the loan financing of Employee Provident Fund and shares of general people. The plant was commissioned on 25 August, 2003 and has been operating satisfactorily since then. With this, Chilime imparted confidence and set an example for development of hydropower project with people’s participation. As a result, nearly 165 different hydropower companies (independent power producers) are operating 1915 MW of hydropower plants in Nepal in PPP model while hundreds of others are in pipeline of generation today.

**Empowering rural people**

Chilime took the novel initiative in providing shares to the people of the project affected district. General people of the then 18 VDCs of Rasuwa district owned the company’s shares of value NRs. 96,000,000.00 in the year 2010. In order to encourage and facilitate the local people to acquire the company shares, the company had convinced the financial institutions to extend the credit facility to the poor rural people. In the following year the company was able to pay 30% cash dividend and 40% bonus shares which eased the shareholders to repay the loans. This way the company extended a meaningful contribution in empowering the financially weak rural people.

**Business Expansion and Contribution to the Nation**

In order to expand the business and for the growth of the company, Chilime ventured on developing four additional hydropower projects. For this, three different associate companies, viz. Sanjen Jalavidyut Co., Rasuwagadhi

Hydropower Co. Ltd. and Middle Bhotekoshi Jalavidyut Co. Ltd. were established in Chilime's lead. Sanjen was to develop two projects of capacities 14.1 MW and 42 MW in cascade while Rasuwagadhi undertook 111 MW project and Middle Bhotekoshi was to develop 102 MW. After the commissioning of 22.1 MW Chilime project, the company thus set its journey towards the development of 270 MW. Chilime undertook this venture when the country was facing sever electricity crisis and in need of capacity addition. In this perspective, Chilime can be considered as a big contributor to the government's urgent plan of adding more hydropower projects. Moreover, Chilime has established a fully owned subsidiary company viz. Chilime Engineering and Services Co. to cater for the engineering services. Apart from these achievements, Chilime being relatively a small company, has been able to add in its fixed asset a 11-story corporate building (called the Chilime Tower) covering an area more than five ropanies at the prime location Dhumbarahi, Kathmandu.

**Attractive returns to shareholders**

Chilime has been distributing attractive dividends to its shareholders right from the first year of commercial operation of the plant. Chilime has paid as high as 60% of the cash dividend. In recent years the dividends are not on that scale because of increase in shareholding units, and the company has made investments in the above three associate companies for the development of four hydropower projects with an aggregate capacity of 270 MW. However, it continues distributing attractive dividends and considered to be a blue chip company in the stock market. The level of dividends will go high once these projects start commercial operation (three projects have already started commercial operation while the fourth one will commence shortly). Incidentally, Chilime has paid more than NRs. 1.30 billion as royalty and more than 1.7 billion as corporate tax to the government of Nepal during its 21 years of operation.

**Current Challenges**

The role of PPP in hydropower development is as important as public sector, as utilization of water resources for electricity generation and its transmission, distribution and efficient consumption is concerned for the larger benefit of the nation. However, there is an inherent difference between the two (PPP and Public Sector).

Though established under the Company Act, public companies such as Chilime, are not fully autonomous as other public (with private promoters and general people) companies established under the same Company Act. PPP companies established with utility or any government institution as promoter such as Chilime must operate simultaneously under two regulatory regimes viz. the regulations under the Company Act and the regulations set for the government bodies. Apart from other challenges, getting results as by private or other public hydropower companies (without any involvement of government agencies) is challenging under such dual regulatory regime.

**Lessons learned**

Lessons learned from the experience of Chilime are diverse. It is proved that small capital dispersed among the general people in the country can be capitalized in the form of equity to develop hydropower projects. This will, to some extent, avoid the dependencies on foreign aid and loans. Projects can be commissioned considerably faster with the public limited company model, as longer time period is taken for execution of projects in public sector dependent on foreign loans/aid. Furthermore, small to medium sized projects can be financed with local resources and executed well with private sector management expertise and involvement of domestic technical expertise.


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# UT-1 Will Stabilize Nepal's Power Grid and Deepen Korea-Nepal Energy Ties

MR. BYEONG SOO MIN
*CEO*, Nepal Water & Energy Development Company(NWEDC)

**Mr. Byeong Soo Min is the Chief Executive Officer of Nepal Water & Energy Development Company (NWEDC), a key player behind one of Nepal's most strategically significant energy ventures—Upper Trishuli-1 Hydropower Project. With extensive international experience in infrastructure development and cross-border energy collaboration, Mr. Min brings a wealth of technical, financial, and managerial acumen to Nepal's evolving hydropower sector. Under his leadership, NWEDC has exemplified the possibilities of second-generation PPPs and Foreign Direct Investment (FDI)-driven models in Nepal. His stewardship of Upper Trishuli-1—being implemented under a unique public-private-investor partnership involving domestic and international stakeholders—reflects his commitment to sustainability, regulatory integrity, and equitable development. Mr. Min's engagement in Nepal's energy landscape underscores the growing relevance of multinational cooperation and institutional synergy in achieving long-term energy security and regional economic integration.**

**How do you define "second-generation PPPs" in the context of Nepal's development landscape?**

Nepal's development prospects are bright, but it needs to focus more on building and expanding infrastructure to achieve sustainable growth. Climate change brings new opportunities to develop Nepal's hydropower resources, namely eco-friendly green and clean energy.

**What lessons have been learned from earlier PPP projects in Nepal, and how are these shaping current and future strategies?**

Nepal's previous PPP projects have been continuously developed and achieved results in various fields even in difficult environments. However, just as it is difficult for all planned projects to achieve the expected results, there are still many projects that are still in progress or have not yet started. As the global economic environment becomes more complex and various interests arise, the role of the business entity is becoming increasingly larger and more work must be done. The implementation strategy must be able to achieve the purpose of the business and maintain results by appropriately adjusting the demands of stakeholders and distributing roles.

**How does the Upper Trishuli-1 align with GRID frameworks?**

UT-1 should be given the highest priority to stabilize the Nepalese power grid by supplying economical and stable power to the GRID. It is intended to perform the roles of base load and peak load required by the power grid as power generation facilities near the demand site. UT-1 project has very good dry months energy (39% dry energy supply) and project is located only 75km north-west to the major load center, the capital Kathmandu. Therefore, UT-1 is very important to meet the energy demand of Nepal's GRID.

**Why success of Upper Trishuli-1 is integral to sustainable partnership between Korea and Nepal?**

Korean power generation companies have experience in building and operating large-scale power generation facilities. We hope that by building and operating power plants in Nepal, which has abundant hydropower resources, we can continue the development and cooperative relationship between the two countries by sharing the resources each has, and by combining Nepal's excellent labor force with Korean technology and capital, we can contribute to expanding cooperative relationships in various fields. Moreover, following successful COD of UT-1, other Korean generation companies would also be interested to invest in Renewable Hydropower of Nepal which has great opportunity to have power export to neighboring India and Bangladesh.

**What factors make Nepal an attractive destination for foreign direct investment(FDI) in hydropower?**

Nepal has abundant hydropower resources, which have great development potential. The country's economic growth and electricity demand are always proportional. India and Bangladesh, which are neighboring Nepal, have high demand for electricity due to rapid economic growth, and Nepal has water resources that can be supplied, so we should make good use of them. We should drive Nepal's economic growth through hydropower development and export electricity to neighboring countries to overcome the limitations of a landlocked country. There is great scope of domestic consumption of electricity within Nepal itself. The per capita energy consumption of Nepal is one of the least in the world. Nepal's per capita energy consumption can be easily increased to 1500 kWh/year from current level of 350kWh/year.

**How has FDI contributed to the financing and execution of the Upper Trishuli-1 project?**

UT-1 is being financed by nine international banks. The major lenders of UT-1 are IFC, K-EXIM, ADB, AIIB, KDB etc. It is purely a FDI in which there is no local banks loan. Equity portion is also from Korean companies. The debt-to-equity ratio in UT-1 is 70:30. The financing modality of UT-1 is a unique blending type with EDPF from K-EXIM. With this full FDI contribution, the project is going smoothly towards achieving the targeted COD by December 2026.

**What challenges have foreign investors faced in Nepal's hydro power sector, and how were they addressed in this project?**

The major challenges faced by UT-1 are lacking of one door solution mechanism in Nepal which contributed significant delays due to lacking of coordination among government organizations. We are facing the challenges to get forest clearances on time. Resolving the issues related to government bodies are taking much more time by visiting multiple organizations. Another challenge is lacking of Hedging Mechanism for foreign currency denominated PPA. In UT-1, the temporary mechanism has been developed for currency hedging with the help of free energy contribution from sponsor side. Nepal has to prepare policy on mortgaging of immovable property directly in the names of foreign lenders. There is no mortgaging policy existed. There are many rooms to improve on repatriation, administration and regulatory framework and policies so that FDI projects will go hassle free implementation.

**What measures are in place to ensure that FDI aligns with Nepal's economic and social development objectives?**

Nepal's economy can get benefit by utilizing FDI on infrastructures and energy. Nepal should create convincing environment for FDI investors with policy reforms. The security to the foreign investors is mandatory. With the investment in mega projects the local community are also getting benefits. The government budget can have priority on health, education and other areas whereas hydropower and infrastructures capitalizing the FDI is the best modality for the development of the country.

**How have public and private stakeholders collaborated on the Upper Trishuli-1 project? What mechanisms were established to share risks between public and private partners effectively?**

UT-1 has the provision in the PDA that up to 10% equity can be contributed by the project affected people of Rasuwa. This provision is kept creating the ownership of the project by the local stakeholders. The public of Rasuwa are also owner of this project. MOE, as the counterpart of the PDA from GON side is facilitating the implementation of the project. The coordination committee between the Company and NEA in the PPA is provisioned for smooth execution of the PPA. DOED, IBN, MOE and NEA are continuously monitoring the progress of the project. The political Force majeure risks and natural force majeure risks are mitigated in the PDA and PPA with the clearly defined provisions therein.

**Can you provide examples of how disputes or challenges between stakeholders were resolved?**

The disputes and challenges are inevitable in the complex project like UT-1. Resolving the disputes or challenges is the role of the Company management. For example, the protest and demand from local community has been resolved with dialogue, meetings and communication. The local administration and security agencies (deployment of APF for the security of the project) are supporting resolve the conflicts with the local community. The CDO and Rural Municipality stakeholders (Chairman, and ward Chairs) are also cooperating to address the local demands.

**What role do local communities play in shaping the project's implementation and outcomes?**

The company is addressing the demands from local communities by supporting local roads and bridges to connect their access to main highways, schools, drinking water, health post etc. We are fully committed to support as per the financial provision and budgets in the project. Continuous support from the local community is a must to complete the project on time. So far, we are on the right track. Although there had been some disturbances from the local side, but we, managed to resolve the issues on time and moving ahead.

**What measures have been taken to ensure that the Upper Trishuli-1 project adheres to environmental and social sustainability standards?**

As I already mentioned, this project is financed by IFC, ADB, KEXIM, AIIB etc, the lenders have very stringent conditions for environmental and social compliances. We are following the IFC performance standard and ADB Safeguard Policy. Without fulfillment of IFC and ADB E&S guidelines, the loan disbursement is not possible. There is a standard No-Net-Loss (NNL) bio-diversity conservation plan, international design of Fish passage, standard labor policy, disposal management plan etc. We are fully implementing all sustainable standard policies of international lenders.

**How has the project addressed the concerns of local communities and ensured their participation in decision-making?**

The UT-1 project is the 1st and only one as of now in Nepal which has successfully conducted FPIC (Fee and Prior Informed Consent) as per ILO 169. FPIC is a social licensing for the project. With this FPIC in 2019, the local communities get direct financial provision of 1.12MN USD to be implemented by IPP (Indigenous People Plan) governing board. The local Tamang communities are implementing 52 programs in their 13 IPP villages managing by their committees. They themselves decide the plan and program whereas the company would support the technical and financial aspects. FPIC is one example of accommodating local communities onboard the project to make it successful.

**What impact will the project have on Nepal's efforts to achieve energy security and reduce power imports?**

UT-1 was started in 2013 with Joint Development agreement with GON. There is already a long history in terms of time horizon. 216MW in 2013 was almost 25% when Nepal had just about 800MW installed capacity. Now, Nepal's installed capacity is increased to 3200MW. However, in dry months Nepal is importing up to 600MW from India due to ROR rivers and their generation reduced in dry months. UT-1 is generating 105MW even in the dryest month. Compared to other projects in Nepal, the reliability of UT-1 is very high. In my opinion, Nepal's GRID needs dry energy than wet seasons energy. In this context, UT-1 can contribute 39% dry season energy to the country's capital Kathmandu from Trishuli corridor with very minimum transmission loss. Therefore, UT-1 is an important project from energy security perspectives which will definitely reduce power imports from India in dry season.

**How will the project benefit local industries and communities directly or indirectly?**

The PDA of UT-1 has provision of 20kWh per household per month free electricity to the PAF (Project Affected Family) after COD. This is a good benefit sharing to the local communities. There is an Industrial Benefit Plan already approved by GON which was developed focusing on local demands like sawmill, bakery, chicken farming, goat farming etc. With 100% electrification, people can utilize power in small industries in the villages. In addition, other benefits such as employment opportunities to the locals during construction are also a good example. On peak construction phase, there are about 1200 workers working at UT-1 site. Out of 1200, about 40% are locals from Rasuwa getting jobs. A lot of CSP (Community Support Programs) programs as per EIA are also being implementing continuously.

**Are there any plans to expand or replicate the Upper Trishuli-1 model for other regions in Nepal?**

KOEN is 100% Korean Government's Company. KOEN operates at about 11,000 MW power plants in Korea. KOEN has already its business in Pakistan, Bulgaria, Chile, Indonesia, the Philippines and Nepal. KOEN is focusing on sustainable, renewables energy like solar, hydro, and wind. In Nepal, there are very attractive projects of Hydro sector. KOEN is thinking to get another project in Nepal after UT-1's success. We are evaluating the potential projects with due diligence at the moment.

PIONEERING PROGRESS

# The Third Generation PPP Success Stories of Arun-3 & Lower Arun Hydropower Projects

**Mr. Rakesh Sehgal, CEO of SAPDC and SLDC, holds a Civil Engineering degree and possesses 36 years of professional experience, with 31years dedicated to hydropower development in India and Nepal. His expertise spans all phases, from initial planning and feasibility studies to design, construction, crisis management and commissioning. He is also certified project management associate from International Project management association (IPMA). He has played a crucial role in different capacities in SJVN's under operation projects like Nathpa Jhakri (1500MW), Rampur (412 MW), and Naitwar Mori (60 MW). He played an important role in designing of railway tunnels and station yards in the state of J&K for a prestigious project named Uddhampur Srinagar Baramula Rail link (USBRL )India. From 2021-2023, he led Civil designs for Arun-3 900 MW HE in Nepal and spearheaded SJVN's expansion in the region, including securing the projects namely Lower Arun 669 MW and Arun 4 450 MW. He also initiated SJVN's operations in Arunachal Pradesh, overseeing five projects totaling 5097 MW and securing key approvals as regional head. Before joining as CEO of SJVN's Nepal projects he held the Pumped storage vertical (PSPs) of SJVN with projects in various stages of development with total capacity of more than 28000 MW.**

### 1. Introduction

Public-Private Partnerships (PPPs) have emerged as a vital tool for bridging infrastructure gaps especially in unlocking Nepal's vast hydropower potential, attracting foreign investment, and sharing project risks effectively. Over the past three decades, Nepal's journey with PPPs in the energy sector has evolved from modest early models to large-scale, cross-border projects that signify a new phase of strategic maturity. Within this context, the Arun-3 and Lower Arun hydropower projects stand as exemplars of what can be termed "third-generation PPPs"—projects marked by high-level intergovernmental cooperation, robust institutional backing, and long-term development vision.

This article highlights the structural innovations, enabling factors, and development impacts of Arun-3 and Lower Arun, being implemented by — SAPDC & SLPDC respectively  the subsidiaries of India's SJVN Ltd.—in collaboration with the Investment Board Nepal (IBN). These projects mark a new era of sustainable and resilient energy development, driven by the synergies of public and private entities across borders. By showcasing these projects, we aim to reflect how Nepal's PPP landscape has matured and what lessons can be drawn for the future of sustainable infrastructure development in the country.

## 2. Laying the Groundwork: Evolution of Hydropower PPPs in Nepal

Nepal's foray into PPPs in hydropower development began with pioneering efforts such as the **Khimti Hydropower Project (60 MW)**, Bhotekoshi Hydropower Project (45 MW) and the **Chilime Hydropower Project (22.1 MW)**. Khimti and Bhoteokoshi developed in the late 1990s by **Himal Power Limited**—a joint venture involving Statkraft Norway and local partners and joint venture of US base Panda Energy limited and local partners—were Nepal's first independent power project (IPP) structured as a PPP. Chilime, meanwhile, adopted a unique public-public-private model with NEA as the majority stakeholder and a portion of equity offered to the general public through IPO, creating early precedence for community participation.

These early projects were instrumental in demonstrating the feasibility of private participation in hydropower, yet they were often limited by regulatory ambiguity, small scale, and isolated contractual frameworks. They did, however, provide critical insights into risk allocation, tariff structures, and the importance of institutional coordination—elements that would shape the policy and legal frameworks in subsequent years.

It is against this historical backdrop that Arun-3 and Lower Arun have emerged—not as isolated projects, but as strategic and scalable PPPs that represent a generational shift in approach. These projects embody a more comprehensive understanding of hydropower as a tool of regional energy diplomacy, sustainable economic development, and structured foreign investment. While Khimti , Bhotekoshi and Chilime laid the foundational stones, **Arun-3 and Lower Arun mark the shift toward a more integrated, institutional, and internationally coordinated PPP framework.**

Importantly, this article does not seek to evaluate or represent the early PPP projects on behalf of SAPDC & SLPDC. Rather, it acknowledges their historical relevance to contextualize the evolution toward the large-scale, third-generation projects that SAPDC & SLPDC is implementing today.

## 3. Arun-3: A Landmark Third-Generation PPP

The Arun-3 Hydropower Project, with an installed capacity of 900 MW, is one of Nepal's most ambitious infrastructure undertakings and a flagship example of a third-generation Public-Private Partnership (PPP). Situated in Sankhuwasabha District in eastern Nepal, the project is being developed by SJVN Arun-3 Power Development Company Pvt. Ltd. (SAPDC)—a wholly owned subsidiary of India's state-run SJVN Ltd. The project was awarded through international competitive bidding and is being implemented under the Build, Own, Operate, and Transfer (BOOT) model with a 25-year concession period, after which the asset will be handed over to the Government of Nepal.

Arun-3 is significant not just for its scale but also for the strategic and structural innovations it introduces in Nepal's hydropower PPP ecosystem. The Investment Board Nepal (IBN) played a critical role in project facilitation, investor negotiation, and intergovernmental coordination, reflecting a mature institutional framework for handling complex, cross-border infrastructure initiatives. The Project Development Agreement (PDA) was signed in 2014, and construction officially commenced in May 2018, following the financial closure of approximately  INR 6333.48 Cr, backed by Indian financial institutions.

One of the defining features of the Arun-3 PPP model is its revenue-sharing mechanism. As per the agreement, Nepal will receive 21.9% of the generated electricity free of cost, alongside annual royalty payments and tax revenues. Additionally, employment generation, local infrastructure development,  skill development, health & safety initiatives have been embedded into the project's implementation framework, ensuring tangible local benefits during both construction and operation phases.

Moreover, Arun-3 marks a shift in how hydropower is linked to regional energy diplomacy. The project is strategically aligned with Nepal–India bilateral energy cooperation, with power generated intended for export to the Indian grid through a dedicated transmission corridor. This enhances Nepal's profile as a clean energy exporter in South Asia and strengthens bilateral economic ties while preserving Nepal's sovereign rights over resource utilization and environmental safeguards.

Despite facing challenges related to terrain, resettlement, and cross-border logistical coordination, the project has demonstrated substantial progress. As of 2024, Arun-3 has crossed major milestones in civil works, including dam construction, tunnel excavation/lining, and transmission infrastructure development. Its expected commissioning within the next few years will be a landmark achievement, setting a precedent for future mega-PPPs in Nepal's infrastructure landscape.

Arun-3 thus represents more than just a hydropower project—it is a proof of concept for large-scale, commercially viable, socially responsive, and diplomatically significant PPPs in Nepal. It reinforces the potential of structured partnerships underpinned by institutional trust, transparent governance, and long-term strategic alignment.

### 4. Lower Arun: Building on the Arun-3 Momentum

The **Lower Arun Hydropower Project**, with a proposed installed capacity of **669 MW**, is a strategically downstream cascade development of the Arun-3 project. Awarded to **SJVN Ltd**. through international competitive bidding in **2021**, the project marks a natural extension of Nepal's evolving third-generation PPP model. Unlike greenfield developments that require separate headworks and dam infrastructure, Lower Arun leverages the tailrace discharge of Arun-3, minimizing environmental impact and optimizing resource use along the Arun River basin.

The project will be implemented under the **BOOT (Build, Own, Operate, Transfer)** model, following a similar concession approach to that of Arun-3. **The Investment Board Nepal (IBN)** signed the **MoU with SJVN Ltd.** in July 2021, initiating the pre-development phase. The formal **Project Development Agreement (PDA)** signed on 01.06.2023 after completion of works such as feasibility studies, environmental assessments, and stakeholder consultations etc..

Lower Arun represents a continuation—but also an enhancement—of the Arun-3 model. It reflects increasing policy and procedural confidence in Nepal's ability to manage complex cross-border PPPs. The project is expected to attract an investment of approximately **INR 4054.66 Cr** and will be financed primarily through Indian banking institutions, underpinned by intergovernmental cooperation frameworks between Nepal and India.

What distinguishes Lower Arun is its potential to

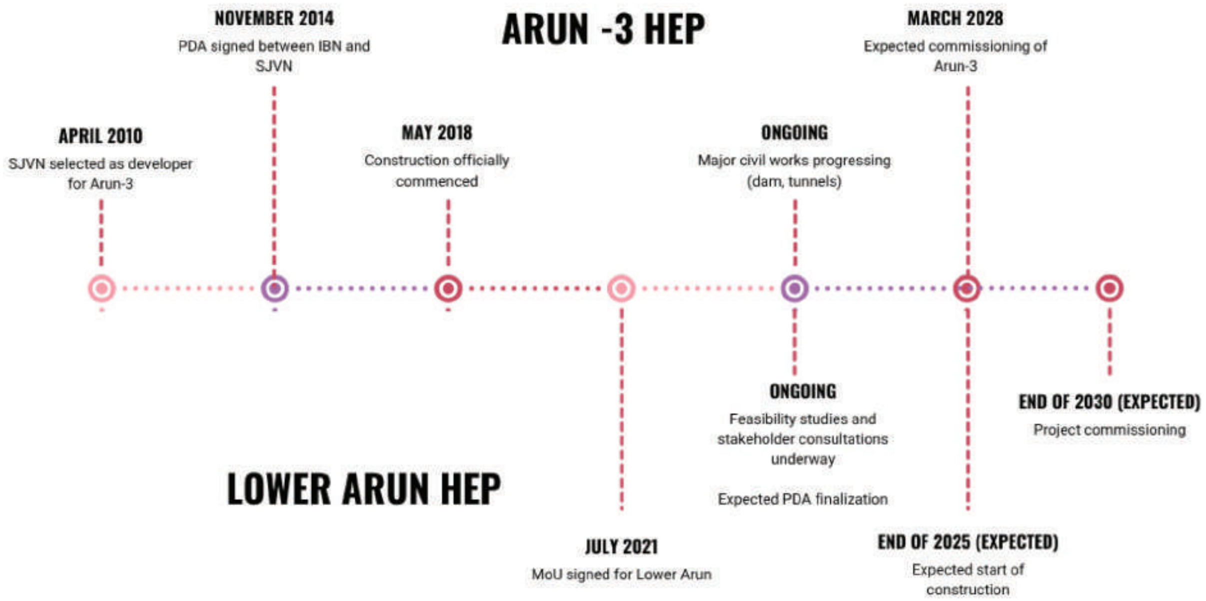


**Fig:** Project Timeline [Arun-3 and Lower Arun] consolidate Nepal's status as **a regional clean energy hub**. Once completed, it will contribute to both domestic energy needs and power exports, creating a stable revenue stream and reinforcing energy diplomacy between the two nations. Additionally, Lower Arun is expected to embed stronger provisions for **community benefit-sharing, environmental safeguards, and regional development alignment**, drawing on the implementation experience of Arun-3.

As the second major project awarded to SJVN in Nepal, Lower Arun also reinforces investor confidence and policy consistency, essential for scaling up Nepal's hydropower ambitions. The cascading design and phased development logic point to a long-term strategic vision in Nepal's infrastructure planning, rooted in sustainability, resource optimization, and structured public-private collaboration.

Though the construction activities are yet to start, Lower Arun holds considerable promise. If executed with the same discipline and cooperation demonstrated in Arun-3, it can become a model for future transboundary hydropower PPPs that are not only commercially viable but also socially and environmentally responsible.

### 5. What Makes These Projects "Third-Generation PPPs"

The Arun-3 and Lower Arun hydropower projects represent a significant leap in Nepal's Public-Private Partnership (PPP) evolution—qualitatively distinct from earlier efforts in their scale, structure, stakeholder alignment, and strategic integration. These projects can be rightfully classified as "third-generation PPPs", characterized by a set of defining features that set them apart from previous models.

#### i. Structured Risk-Sharing and Long-Term Concessions

Both projects are implemented under clearly defined BOOT (Build, Own, Operate, and Transfer) frameworks, which provide long-term visibility and structured risk allocation. The concession terms span 25 years (excluding construction), with risk distribution carefully delineated between the developer, the Government of Nepal, and the facilitating agency (IBN). This stands in contrast to earlier projects where institutional and contractual clarity was often lacking.

#### ii. Transparent Competitive Bidding and Policy Maturity

Unlike negotiated deals of the past, both Arun-3 and Lower Arun were awarded through international competitive bidding, ensuring transparency, accountability, and investor confidence. This reflects an important policy shift supported by Nepal's evolving PPP laws, energy development policies, and the enabling role of the Investment Board Nepal (IBN). The selection of SJVN Ltd. through a fair, open process affirms the country's readiness to align with global procurement standards.

#### iii. Cross-Border Energy Diplomacy and Bilateral Cooperation

These projects go beyond domestic infrastructure development—they are embedded within the broader context of Nepal–India energy cooperation. The coordinated planning of power evacuation, financial structuring, and diplomatic facilitation elevates them into the realm of regional economic integration. Arun-3 and Lower Arun exemplify how PPPs can also serve as instruments of geostrategic alignment and trust-building between neighboring countries.

#### iv. Embedded Local Benefits and Social Inclusion

Third-generation PPPs emphasize local community integration not only as beneficiaries but as active stakeholders. Free power allocation (21.9% in Arun-3), royalty structures, local employment mandates, and CSR programs are explicitly embedded in the project design. Furthermore, environmental and social impact assessments (ESIA), grievance redress mechanisms, and benefit-sharing frameworks show increased attention to socio-environmental safeguards—a critical lesson learned from early PPP experiences.

#### v. Institutional Coordination and Project Facilitation

The active and sustained involvement of the Investment Board Nepal showcases a matured model of institutional facilitation. From project structuring and negotiation to ongoing monitoring, IBN's role has ensured that both projects are guided by policy coherence, inter-agency coordination, and technical diligence. This reflects a more capable and responsive public sector in its partnership role—an essential hallmark of advanced PPPs.

**vi. Replicability and Scalability**

Lastly, these projects are designed with future replication in mind. The cascading development of Arun River via Lower Arun, and potential expansion into other basins like Tamor, West Seti, and Upper Karnali, demonstrates that these are not isolated projects. Rather, they are repeatable models built on strong policy, regulatory, and financial foundations.

## 6. Enabling Factors for Success

The success of Arun-3 and the promising trajectory of Lower Arun are not incidental. They are the result of a confluence of **policy readiness, institutional capacity, strategic diplomacy, and private sector confidence**—elements that collectively define the enabling environment necessary for large-scale, cross-border PPPs to thrive in Nepal.

**i. Strategic Role of the Investment Board Nepal (IBN)**

At the heart of both projects lies the pivotal role played by the **Investment Board Nepal (IBN)**. As the primary facilitating agency, IBN ensured alignment across ministries, fast-tracked regulatory clearances, and maintained a stable interface between the Government of Nepal and the foreign investor. The board's capacity to structure complex deals, negotiate balanced Project Development Agreements (PDAs), and maintain institutional continuity has been instrumental in securing investor trust and ensuring project progress.

**ii. Stable Bilateral Cooperation Framework with India**

The Arun-3 and Lower Arun projects are anchored in **Nepal–India bilateral energy cooperation agreements**, which provide a layer of political and regulatory stability. Cross-border transmission coordination, financial assurance through Indian banking institutions, and the diplomatic backing of both governments have significantly reduced the perceived risks typically associated with large hydropower PPPs. These projects showcase how bilateral alignment can act as a multiplier in mobilizing cross-border infrastructure investments.

**iii. Transparent Procurement and Competitive Bidding**

The use of **international competitive bidding** to award both projects has served as a strong signal of Nepal's commitment to transparency and good governance. It helped attract technically and financially competent developers, strengthened Nepal's image as an investable market, and minimized the risks of litigation or public scrutiny. This procurement discipline has reinforced market confidence and raised the standard for future PPP allocations in the sector.

**iv. Legal and Regulatory Frameworks**

Reforms in Nepal's PPP and hydropower policies—including the **Public-Private Partnership and Investment Act (2075)** and related energy laws—provided the legal scaffolding for these mega projects. Clear provisions on land acquisition, fiscal incentives, environmental compliance, and project handover terms helped eliminate the ambiguities that plagued earlier PPP initiatives. This clarity has been essential in aligning institutional objectives with investor expectations.

**v. Financial Structuring and Bankability**

Both projects benefited from strong financial structuring led by **SJVN Ltd.**, with Indian banks providing the bulk of financing. The Arun-3 financial closure—valued at approximately USD 1.4 billion—was a major milestone, showcasing the feasibility of mobilizing large-scale capital for infrastructure in Nepal. The revenue-sharing mechanisms, royalty streams, and power purchase agreements were carefully designed to ensure long-term **bankability and risk-return balance**.

**vi. Public Communication and Local Engagement**

A significant shift in these third-generation PPPs is the emphasis on **local benefit-sharing and community engagement**. CSR investments, employment generation, grievance mechanisms, and early stakeholder consultations have helped mitigate resistance and build local ownership. This approach contrasts with earlier models where lack of consultation often led to delays and local opposition.

**7. Looking Ahead: Implications for Nepal's Hydropower Future**

The successful structuring and ongoing implementation of Arun-3 and Lower Arun offer valuable lessons and a replicable model for future hydropower development in Nepal. These projects mark not only a breakthrough in project size and complexity but also a shift in how Nepal conceptualizes, manages, and leverages PPPs for national and regional development.

*1. Scaling Up with Confidence*

With Arun-3 reaching advanced stages of construction and Lower Arun to start shortly, Nepal has established credibility as a host country for large-scale PPP infrastructure. This credibility is crucial as the government seeks to develop future strategic projects. The frameworks used in Arun-3 and Lower Arun—particularly the clarity in concession design, revenue-sharing, and local integration—can serve as templates for future deals.

However, these experiences have also revealed that success in scaling depends not only on policy design but also on resolving foundational implementation issues—ranging from land acquisition delays to engineering challenges in difficult terrain. Future projects must embed flexibility, early stakeholder engagement, and robust risk management within their core design.

*2. Strengthening Regional Energy Diplomacy*

The cross-border nature of these projects' underscores Nepal's emerging role as a regional clean energy hub. With power trade agreements in place and dedicated transmission infrastructure being developed with India, these hydropower projects position Nepal to export surplus electricity while also contributing to energy security in South Asia. They offer Nepal strategic leverage in regional diplomacy, using hydropower as a platform for cooperation rather than contention.

Nonetheless, the projects highlighted the need for more formalized bilateral mechanisms to expedite decision-making and resolve cross-jurisdictional bottlenecks. Future cross-border energy cooperation must be supported by agile institutional arrangements, technical harmonization, and synchronized regulatory pathways.

*3. Institutionalizing the Third-Generation PPP Model*

The institutional mechanisms deployed in these projects—led by the Investment Board Nepal (IBN)—must now be formalized, expanded, and made more agile. Building internal PPP capacity across line ministries, provincial governments, and local authorities is essential for managing a growing portfolio of infrastructure partnerships.

Arun-3 and Lower Arun proved that Nepal can manage projects of significant technical and diplomatic complexity. However, implementation also revealed constraints in regulatory navigation, environmental compliance, and inter-agency coordination. Strengthening regulatory clarity, empowering technical agencies, and streamlining approval processes are critical to institutionalizing third-generation PPPs as standard practice.

*4. Deepening Local Benefit-Sharing Frameworks*

As public expectations rise, future PPPs must go beyond compliance and actively integrate community development, equity participation, environmental safeguards, and inclusive employment opportunities. Delays in Arun-3 due to community resistance and land acquisition issues demonstrated that public acceptance is not automatic—it must be earned through transparency, participation, and fair distribution of benefits.

The long-term social license for PPPs will depend not just on power generation but on the tangible and visible development dividends shared with local populations—particularly in project-affected areas.

*5. Diversifying Financing and Expanding the Investor Base*

While both Arun projects have relied heavily on Indian financial institutions, Nepal's next step could involve greater financial diversification, including green bonds, multilateral finance, blended capital, and even institutional investors from third countries. Arun-3's financial closure revealed the challenges of foreign currency exposure, lengthy negotiations, and dependence on limited financing channels.

A robust pipeline of bankable, well-prepared PPP projects must be complemented by domestic capital market development and risk mitigation instruments such as currency hedging or guarantee facilities, making Nepal's infrastructure offerings more resilient and attractive.

*6. Climate and Sustainability Commitments*

Given global momentum around clean energy and climate finance, Nepal can position its hydropower PPPs within broader sustainable development and net-zero frameworks. Projects like Arun-3 and Lower Arun can be leveraged to attract climate-linked funding and contribute to Nepal's NDC (Nationally Determined Contributions) targets under the Paris Agreement.

However, project experiences also pointed to systemic constraints in environmental assessment capacity and procedural delays. Aligning national regulatory frameworks with international ESG standards and enhancing institutional readiness will be essential to access future climate financing windows.

*7. Expanding the Arun Basin Cascade: Arun-4 and Beyond*

Building on the momentum of Arun-3 and Lower Arun, Nepal and India have initiated collaboration on the Arun-4 Hydropower Project (490 MW)—a run-of-the-river scheme proposed as the next phase in the Arun cascade. Designed to generate approximately 2,758 million units (MU) annually, the project is being developed under a Joint Venture (JV) between SJVN Ltd. (India) and the Nepal Electricity Authority (NEA).

The Memorandum of Understanding (MoU) for Arun-4 was signed on 16 May 2022 in Lumbini, in the presence of the Prime Ministers of both countries. The project was registered with India's Central Electricity Authority (CEA) in July 2022, and the inception report was submitted to NEA in November of the same year. The Ministry of Power, Government of India, has approved an investment of ₹41.36 crore for pre-construction activities. As of mid-2024, the project remains in the pre-DPR stage, with stakeholder consultations initiated and a JV agreement under finalization with the Government of Nepal.

Arun-4 not only signifies continued trust and cooperation between the two countries but also cements the Arun basin as a strategic energy corridor for regional connectivity and power trade. The integration of Arun-4 reflects a transition from isolated project agreements to a long-term basin-wide development strategy, where cumulative planning, environmental coordination, and energy diplomacy can generate compounded national benefits.

**8. Conclusion**

The Arun-3 and Lower Arun hydropower projects stand as milestones in Nepal's journey toward mature, strategic, and globally aligned Public-Private Partnerships. These third-generation PPPs represent a significant departure from earlier models—not only in scale and complexity, but in their structured approach to risk-sharing, transparent procurement, regional cooperation, and inclusive development outcomes.

Their success is rooted in the convergence of strong institutional facilitation, robust legal frameworks, cross-border energy diplomacy, and a commitment to public benefit. Together, they demonstrate how solicited, well-prepared PPPs can mobilize large-scale investment, ensure long-term sustainability, and foster trust among stakeholders—both domestic and international.

For Nepal, these projects are more than power plants—they are a **proof of capacity, intent, and vision**. They illustrate that Nepal can attract and manage high-value infrastructure partnerships, while advancing its development priorities and contributing meaningfully to regional energy security. Further, Arun-4 Hydropower Project marks a decisive shift from project-specific cooperation toward a basin-wide development strategy. By leveraging the hydropower potential of the Arun River through integrated planning and regional collaboration, Nepal is laying the groundwork for long-term energy security, enhanced export capacity, and a resilient power sector.

As the country looks ahead to future solicited projects, the lessons from Arun-3 and Lower Arun provide a clear blueprint. By institutionalizing the enabling conditions that made these projects possible, Nepal can transform its hydropower potential into a sustained driver of economic growth, diplomacy, and resilience.

## SNIPPET PPP IN ENERGY

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<tr><td rowspan="13">Key Projects</td><td rowspan="3">Solicited</td><td>Arun III: 900 MW; NPR 111 billion; Under Construction.</td></tr>
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# “The Government should act as equal partner in PPP coming out from the mentality of high-handedness”

**MR. JANARDAN SHARMA (PRABHAKAR)**
Hon'ble Member of Parliament

**Mr. Janardan Sharma (Prabhakar), Deputy General Secretary of CPN (Maoists-Centre), has served in different cabinet portfolios in the past (Minister for Peace and Reconstruction, Minister for Home Affairs, Minister for Energy and Minister for Finance). He is credited for eliminating the perennial load shedding in the country and also brought transformative policies for the development of energy sector. During his tenure as the Minister for Energy; he had played crucial role to finalize PPA rates for reservoir; peaking and run of the river projects for dry and wet season. Further, as the Minister for Finance and Vice Chairperson of the Investment Board Nepal, he played crucial role for the institutional autonomy of the IBN through establishment and operationalization of IBN Fund. Sharma shared some insights on promoting PPP in Nepal. Following are the excerpts from interview:**

**What is your thought on taking forward the PPP modality in Nepal?**

PPP, as a proven modality for channelizing private sector investment, has delivered substantially in many countries; however we've achieved insignificant results from PPP despite having a huge potential. Considering the resource constraints with the government and its weak implementation capacity; PPP is the best policy available so far, however, mindset of state actors has turned it to the cumbersome process. Against the backdrop, we require to put in place a congenial atmosphere, supportive policies and processes to make PPP deliver to its potential. We have to develop the PPP culture as per its fundamentals and adapt the international practices in our local context, to attract private investors including FDI in PPPs. Mainly, the cumbersome bureaucratic processes, limited inter-agency coordination, political interferences and institutional capacity and hesitations is hindering us to take forward our development initiatives including PPP.

The Kathmandu-Terai Fast Track serves as a clear example. Initially proposed at a cost of Rs. 70 billion, the project has now ballooned to nearly Rs. 300 billion due to overpoliticization and delayed decision-making. Had the government opted for a Public-Private Partnership model with a minimum revenue guarantee, the project could have already been operational—unlocking significant economic opportunities by now. When the proposal was submitted by a foreign developer, we failed to make a timely decision. I must say that was a serious blunder.

Furthermore, procedural delays in project approvals and investment facilitation continue to convey a negative message to the international investor community. We're not in isolation; we're competing for attracting investment with other countries and investors are watching where they can secure best returns of their investment. I often tell PPP (3P) as 4P (including people); people participation is must in the PPP; it is because PPP can't be succeeded without people participation. Though people participation supports to address the complexities at the local level, the government itself has been creating obstruction.

We have provided a PPP framework under PPPIA 2019 and to mobilize and facilitate private investments and established Investment Board Nepal in 2011. However, the institution still could not deliver PPPs as it should have during these years because of slow process of decision and/or indecision. IBN, chaired by the prime minister with ministers from different line agencies as members including finance minister should be able to take timely decision for advancing PPP projects and private investments.

**Do you think the government has not considered PPP as partnership?**

We see highhandedness in the government authorities due to lack of magnanimous understanding of the PPP and how the government can be partner in terms of sharing risks and benefits. Not only delay in investment approval process, the government agencies also create hurdles in site and right of way clearance (in forest areas). Unnecessary delay and consumption of time impact on timely project delivery as well as in project cost overruns. When the government itself creates obstructions under the guise of existing laws and policies, it suggests that our policy environment is not truly conducive to investment—and that authorities are, in some cases, allegedly engaged in rent-seeking and corrupt practices. Our bureaucracy is self-centric; they're loyal to their near and dear ones; with such attitude they won't serve the nation. This is a failure of political leadership, which is unable to command the bureaucracy properly making them accountable for working transparently and responsibly. I personally believe that there should be a performance contract system in the bureaucracy giving contract extension and facilities only based on their performance. Without making this significant change, bureaucracy (except few) will not perform as they perceive civil service as taken for granted.

**PPP in energy sector is considered a successful model in Nepal; how can we replicate our own experience in other sectors?**

Though there have been significant achievements in the energy sector through the PPP model, one of the persistent challenges has been project cost escalation due to time overruns. If projects are executed in a timely manner, costs could be reduced by at least 25%. This lesson must be applied as we expand PPP into other sectors—particularly transport infrastructure.

For example, we should begin implementing road projects under the PPP modality. During my tenure as Finance Minister and Vice Chairperson of the Investment Board Nepal (IBN), I instructed the CEO of IBN to initiate a feasibility study for the Chitlang–Chitwan Expressway, which holds great potential for development under a PPP model. However, different sectors require different PPP structures. In hydropower, we have set a benchmark of handing over the project to the government after 30 years of operation. In road infrastructure, the concession period could vary depending on the return on investment (ROI) or other models appropriate to each project and sector. If we take a practical approach that considers the developer's perspective, we can attract more private investment for road and tunnel development.

That said, one of the main barriers remains the rigid and overly mechanical nature of our bureaucracy, which often fails to adapt or take timely decisions. This is where political will and strong leadership become crucial. Replicating successful PPP practices is possible—but not if they are trapped in procedural conundrums. To truly leverage the PPP model, we must become more result-oriented.

The state needs to think both widely and wisely, adopting a 'parenting' role to guide and support such partnerships. In PPPs, the government must act not just as a regulator but as a proactive facilitator and committed partner. Unless, government agencies shift their mindset toward efficient facilitation and effective collaboration, it will be difficult to achieve substantial progress in expanding PPPs beyond the energy sector.

**The government has realized that the revenue base is shrinking and looking into alternative financing to achieve the development goals. PPP has been given priority in policies and planning documents; however, does it require a serious orientation in practice in your opinion?**

Yes, while Public-Private Partnership (PPP) has been prioritized in policy and planning documents, it still lacks serious orientation and practical commitment on the ground. One major issue is the prevailing mindset among policymakers—many still view remittance as a permanent and dependable source of national income, which is fundamentally flawed. The COVID-19 pandemic exposed the volatility of global financial flows, and although remittance inflows remained relatively stable, we must recognize that this is not a sustainable foundation for development.

To build a strong and resilient economy, we must focus on boosting domestic production, increasing exports, and promoting import substitution for which strong transportation infrastructure and reliable energy supply is fundamental. This requires large-scale investment across sectors. It is crucial for policymakers to understand that investors are not coming to Nepal for charity—they seek viable returns and a predictable investment environment.

Projects like Nijgadh International Airport and the Kathmandu-Terai Fast Track are often cited as transformative for the economy, with potential to contribute as much as 7% to GDP growth once operational. If we can successfully implement 10–20 such projects in timely manner and with cost efficiency, the impact on national development would be substantial. To make that happen, PPP offers the most practical path forward, especially given the state's fiscal limitations provided we are serious about it.

We need to adopt the right PPP modality based on the nature of each project. One-size-fits-all won’t work. For instance, in tourism and infrastructure, if we could develop smooth road networks with tunnels to reach the Everest Base Camp, it would significantly increase tourist inflow—possibly even creating global digital campaigns like #SelfieWithSagarmatha.

Despite tremendous opportunities in Nepal for PPP, the process of drafting and implementing laws often faces undue influence from vested interest groups, which creates barriers to reform. Nevertheless, we have no viable alternative: resorting to PPP is not a choice, it is a necessity. It must be applied not only in energy and roads but also in tourism, logistics, urban infrastructure, and beyond. The real challenge lies in bridging the gap between policy intention and practical delivery—and that starts with a change in mindset, institutional coordination, and genuine political will.

**During your tenure as the finance minister you set a vision of 'Nepal's water resources, investment of people', eliminated loadshedding, and laid emphasis to take forward 'Chitlang-Chitwan Expressway'. What obstructions hindered implementing your vision?**

The major obstruction is political instability. Frequent government change triggers policy instability and tarnishes the country's investment climate. I've been advocating for the national consensus in agendas at the political level that will provide the policy stability. If we see an example of India, the coalition government completes their five-years tenure. We can learn the coalition culture from India. While serving as the energy minister I formulated few policies to facilitate the investors/developers. The PPA policies for the reservoir and peaking was introduced with a vision to expedite the reservoir projects, however, again due to political instability, we could even reach the stage of initiation.

**You've mentioned flexibility of polices, could you explain?**

What I mean to say is laws should be transparent. Another, we must consider that one size doesn't fit all. Our laws and policies should be flexible to address the issues concerned to the nature of the projects. Moreover, our laws are contradictory in each other, there must be coherence. we should ensure participation of people in PPP projects; there must be transparency in terms of benefit sharing; this will minimize the local hassles. Once I saw in Thailand, they were supplying aggregates and boulders to Bangladesh; which we have enough potential to export. We are neither using our resources for our development nor creating an environment for the best use of natural resources for the nation.

**Investors are seen reluctant to solicit the projects showcased during the investment summit, what are the reasons behind it?**

I think this is mainly due to the lack of credible projects and the failure to earn investors' confidence in providing a favourable investment climate. The fundamental requirement is to gain the trust of investors. Unless we provide a congenial environment in which investors can rely, we simply can't attract meaningful investment.

I personally believe that if we could offer an amicable investment climate, investors themselves would be willing to undertake project studies. In such cases, feasibility studies wouldn't be a major issue. Once we prepare an initial feasibility study, we can award the project to a developer, who would then carry out the detailed project report (DPR) and undertake a credible investment study.

In other countries, we see bridges and roads being developed under Design and Build modalities. However, in government procurement here, design changes occur frequently, leading to project delays and cost overruns. Minor policy tweaks or incremental procedural adjustments in bureaucratic service delivery are not sufficient to address these challenges. What we need is a transformative change—and more importantly, visionary leadership to drive that transformation. Investors don't come without a clear and strong commitment from the highest levels of political leadership.

**If the IBN accept the unsolicited proposals; the proposer carry study with facilitation of IBN. Following the evaluation of report, submitted by them, will fast track the process by finalizing the terms/conditions with negotiation. Apart from this, How can the project development and procurement process be improved to attract timely investment through both unsolicited and solicited PPP proposals?**

The PPP and Investment Act—as well as the earlier Investment Board Act—have provided for both solicited and unsolicited routes to bring in investments, and in fact, both approaches should be considered. To attract timely investment, we must first develop a credible project pipeline and solicit projects based on national priorities. This also requires proactive project marketing—organizing project roadshows and promotional events.

We can showcase projects at different stages of readiness. Some investors may be interested in further studying projects that already have a basic feasibility study. But for that to happen, we must communicate the project's message and potential clearly to investors through various platforms. Over time, we also need to enhance our internal capacity to carry out project studies ourselves.

That said, if a potential investor expresses interest in conducting the study on their own, we can accept their unsolicited proposal and move forward accordingly. With IBN's facilitation, the proposal can be evaluated, and if found viable, fast-tracked through negotiation and agreement on terms and conditions. Both pathways are important and must work in parallel to meet Nepal's infrastructure financing needs.

**You envision IBN to be the PPP centre of excellence and promote PPP culture. Are you confident that we can promote PPP culture in Nepal given the present state where Ministries and Departments are more focused on government procurement for the development projects and programmes instead of promoting PPP?**

Promoting a PPP culture is fundamentally about changing the mindset—and that's not easy. From my experience in government, bureaucracy often operates in a mechanical, risk-averse manner, influenced by self-interest and ad hoc decision-making. Ministries and departments still lean heavily toward traditional government procurement rather than exploring PPP as a viable alternative. Politically, the frequent shifts in coalition governments and the lack of trust within ruling alliances further weaken continuity and long-term planning. To truly institutionalize PPPs, we need visionary leadership that is committed to democratic values and long-term development. Only then can institutions like IBN evolve into a true PPP Centre of Excellence and help embed PPP culture across the public sector.

**Currently, there are two prevailing thoughts regarding IBN, one is strengthening IBN to facilitate the entire project life-cycle and second is to handover the**

**projects to the concerned ministries after financial closure and strengthen IBN as investment promotion agency. Which one do you prefer?**

I think there shouldn't be such debate on the role of the IBN, the objective of its establishment is to facilitate the investors during the entire project cycle in a hassle-free manner. If the ministries are able to perform this, there was no need of IBN. If handed over to the ministries the projects will again fall into the doldrum. Again, if we deviate from the objective of establishing IBN and weaken it, instead of strengthening, this will not fulfill the objective of promoting PPP and private investment in the country. **IBN should be developed** as the centre of excellence with having knowledge and expertise on the project life cycle management. I believe IBN should be provided autonomy to promote investment and also to facilitate the projects during the entire project cycle. I am supportive for its autonomy and believe to strengthen it as the Investment Authority.

# Promoting FDI Through PPPs in Nepal

**Ms. Courtney Fingar is a leading expert on foreign direct investment (FDI) with more than 20 years of experience in the industry, as a journalist, consultant and commentator. Among her roles, she is founder of Fingar Direct Investment and serves as a senior advisor for the World Association of Investment Promotion Agencies, as well as being a member of the advisory board of the Global Chamber and the Advisory Council of Halkin Investments. She previously spent 15 years with the Financial Times where she ran the group's specialist FDI publication.**

Foreign direct investment (FDI) plays a pivotal role in fostering economic growth, particularly in developing countries where fiscal constraints limit the government's ability to undertake large-scale projects.

Public-Private Partnerships (PPPs) are a powerful tool for mobilising private sector resources to achieve public objectives. PPPs can serve as a highly effective mechanism for attracting FDI, enabling governments to leverage private sector expertise, capital and innovation. For this reason, governments worldwide are increasingly promoting PPPs as part of their FDI strategies. When carried out successfully, PPPs can be a win-win situation, helping the government to obtain off-balance-sheet financing while lenders undertake part of the risk but are rewarded with higher profit margins than for standard corporate lending transactions.

However, the success of these partnerships hinges on the ability to present viable and attractive opportunities for private investors. Bankable and investable projects are the cornerstone of successful FDI and PPP initiatives. The significance of presenting such projects was emphasised during a roundtable (WAIPA, 2024) hosted by the World Association of Investment Promotion Agencies at the Annual Investment Meeting 2024 in Abu Dhabi. Discussions highlighted how governments in Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs), and Small Island Developing States (SIDS) must focus on creating pipelines of clearly defined and attractive investment opportunities. For these economies, private investment is essential to meeting their development needs and securing the necessary investment for their state-backed projects depends on having a pipeline of clearly identified bankable and investable projects.

For a country such as Nepal, where infrastructure development, energy generation and digital connectivity are critical, such projects that can attract investors via the PPP model offer a pathway to bridging financing gaps.

### A difficult time for FDI

Against the backdrop of a volatile and uncertain global environment for FDI, attracting more — and higher-quality — investment is both increasingly urgent and increasingly difficult for developing countries.

Global FDI flows have experienced significant turbulence in recent years, as hopes for a post-pandemic rebound were derailed by a mix of economic and geopolitical crises.

Early estimates for 2024 indicate that a full recovery has yet to take shape. On the surface, global FDI rose by 11% to $1.4 trillion, according to UN Trade & Development (UNCTAD, 2025), suggesting a partial rebound from years of stagnation. However, this growth is misleading: excluding investment routed through European conduit economies, which serve as intermediaries, FDI actually declined by 8%.

Developed economies recorded a 43% jump in FDI, largely driven by conduit economies, while developing economies saw a 2% decline, marking their second consecutive year of falling inflows. Greenfield investment announcements in developing economies fell 6% in number and 24% in value. Africa and Asia saw the largest declines, losing nearly 200 and 150 projects, respectively.

The decline in investment in the Global South jeopardises progress for the Sustainable Development Goals (SDGs), as they rely heavily on international project finance. According to UNCTAD, investment in SDG-related sectors dropped 11% globally in 2024, with fewer projects in agrifood systems, infrastructure, and water and sanitation compared to 2015, when the goals were adopted.

Globally, international project finance, which is heavily concentrated in infrastructure, continued to fall sharply. Deals dropped 26% in number, and values declined by nearly a third. Specifically in developing economies, such deals decline 23% in number and 33% in value, caused by fewer deals in Asia. The declining inflows and reduction in project finance activity in developing economies threatens to exacerbate disparities that are already heightened post-pandemic.

UNCTAD's statistics show FDI into Nepal declining from $196 million in 2021 to $74 million in 2023 (UNCTAD, 2024). This is line with declines seen across South Asia and the world for these years. But given Nepal's development needs and the importance of FDI with regards to meeting these needs, a sharp focus on mobilising investment is critical at this juncture.

## Investable projects to the rescue

Writing for fDi Intelligence, Ismail Ersahin, CEO and Executive Director of WAIPA, has argued that a clear focus on investable projects can help close the SDG investment gap (Ersahin, 2024).

"The global FDI market is in a period of stagnation, with investors showing caution as a result of rising protectionism and geopolitical tensions. And despite an increasing corporate focus on sustainability and a desire to invest in projects and sectors that support the SDGs, developing countries face an annual SDG investment gap of $4 trillion, according to UN Trade & Development," he writes. "In the face of these complexities, there is an urgent need for investment promotion agencies (IPAs) and other government authorities to identify, package and showcase investable projects, especially in high-growth sectors like renewable energy and technology or in critical infrastructure."

He adds: "Investors have capital to deploy and a desire to invest in SDG-friendly projects, but often complain of a lack of investible projects. Meanwhile, IPAs have an imperative to attract this type of investment. But there is often a mismatch between what investors would consider attractive and viable, and what is offered to them. Resolving this mismatch is essential to meeting global development objectives and bolstering vulnerable economies."

Investment Projects Ready to Offer (IPROs) — the term that has gained in popularity to describe such projects — "should be financially viable, backed by local or national authorities, supported by clear regulatory frameworks and verified by credible technical studies," according to Ersahin.

The same article includes guidance from Stefan Kratzsch, Head of the Sustainable Investment and Responsible Business Unit at the United Nations Industrial Development Organization (UNIDO), on making a project investment-ready, in line with UNIDO's Investment Project Preparation and Project Appraisal framework (UNIDO, 2021). The four key steps are:

1. **Opportunity Identification.** This includes recognising potential investment prospects, identifying prospective investors or stakeholders, and defining the underlying business concept.
2. **Preparation.** This stage involves conducting market and technical analyses, which serve as inputs for financial assessment. The process is then extended to economic evaluation to gauge the potential impact on the host country if the project is realised.

3. **Appraisal**. Investors or stakeholders assess the project based on their commercial criteria. The outcome of this evaluation determines whether the project advances or is halted. If initial efforts fail to attract investor commitments, revisiting the preparation phase becomes necessary.
4. **Implementation**. Upon securing investment, the project transitions to the implementation phase, which involves operational and technical planning, including detailed engineering work.

### Nepal's Potential in FDI and PPPs

Nepal, with its strategic location between India and China, abundant natural resources, and growing tourism sector, holds strong potential to attract FDI through PPPs. The country's hydropower sector alone offers vast opportunities and by harnessing its potential Nepal could position itself as a regional energy exporter.

Nepal can use PPPs to address critical infrastructure needs, such as roads, airports and energy plants. However, realising this potential requires well-structured IPROs that ensure profitability and address risks such as political instability, regulatory hurdles and logistical challenges.

There are a few examples to draw upon. Gautam Buddha International Airport, developed with private sector support, demonstrates how PPPs can enhance infrastructure development. Similarly, the Upper Tamakoshi Hydropower Project showcases how private investment can unlock the country's energy potential. Such projects underscore the importance of feasibility studies and robust frameworks in ensuring success, as referenced in UNIDO's advice.

Nepal has prepared a strong and well-vetted pipeline of investable projects, which is an excellent start. There is still work to be done, however,

Through its Benchmarking Infrastructure Development initiative, the World Bank benchmarks regulatory frameworks against internationally recognised best practice for the preparation, procurement and management of large PPP infrastructure projects (World Bank, 2025). The Benchmarking Infrastructure Development 2020 PPP survey (World Bank, 2025) covers 140 economies worldwide. The possible scores range from 0 to 100. Economies with the highest scores, nearing 100, are considered to have PPP frameworks that are closely aligned with international good practices in each thematic area while economies with scores closer to 0 under perform.

Nepal scores a 39 on preparation, 52 on procurement, 58 on contract management, and 58 on unsolicited proposal. This suggests the country is mid-level in its execution of infrastructure PPPs, hence still considerable room for improvement.

The challenges Nepal faces are quite universal. "Despite its intrinsic relevance and policy makers' efforts to address the infrastructure gap, progress has been limited," says a World Bank report on PPPs (World Bank, 2024). "A confluence of challenges from macroeconomic shocks and political instability to weak institutional capacity has hindered the capacity of countries to develop infrastructure that meets demand."

Key to addressing this gap is increasing efficiencies in delivering infrastructure services, and private sector participation via PPPs is an important way to do this. "Although there are different modalities to procure infrastructure, PPPs have been extensively used by many countries to deliver successful programs", the report says.

An over-arching challenge in executing PPPs is the disconnect between public and private sector mindsets and ways of operating. In a blog for the World Economic Forum, Carmine Di Sibio (Di Sibio, 2022), Global Chairman and CEO of EY, writes: "The reality is that effective public-private partnerships are difficult to design; the two sectors have historically focused on delivering value for very different stakeholders, align around different objectives, work at a different pace and often speak very different languages."

"To collaborate effectively, both sides need to develop "multi-lingualism" (Financial Times, 2021) and have a full understanding of the value the other brings. Success will depend on whether business leaders can think like policymakers, and policymakers can think like business leaders."

On the governmental side, briging this gaps means bringing in private sector expertise and those who understand market incentives into public sector jobs to manage private sector participation, Di Sibio recommends.

### Boosting Nepal's investment attractiveness

Enhancing investor confidence is essential for Nepal to successfully attract FDI. A critical component of this effort is the development of bankable projects and IPROs that signal the government's commitment to delivering results. To achieve this, Nepal must streamline its legal and regulatory frameworks, reducing bureaucratic delays and ensuring transparency in PPP agreements. Clear and consistent regulations will reassure investors and create a more predictable business environment.

Additionally, comprehensive risk assessments that consider financial, legal and environmental factors are crucial for mitigating uncertainties. Investors seek stability, and a well-structured approach to risk management will enhance confidence in Nepal's projects. Given the country's challenging mountainous terrain, infrastructure readiness is another vital factor. Logistical obstacles must be addressed through preemptive planning and investment in essential infrastructure to ensure project viability. Furthermore, integrating Environmental, Social, and Governance criteria into projects can help Nepal attract a broader range of investors, particularly those focused on sustainability and long-term development goals.

Despite its potential, Nepal faces numerous challenges in promoting FDI through PPPs, above and beyond those which nearly all coiuntries face. Political instability, characterised by frequent changes in government, often results in delays in project approvals and disruptions to long-term plans. This unpredictability discourages investors, who require consistency and long-term commitment from host governments.

Moreover, regulatory bottlenecks, such as complex approval processes and inconsistent policies, further deter investment. Simplifying these processes and ensuring policy continuity will be key to overcoming these obstacles. Another major challenge is the lack of expertise in developing and managing bankable projects. Government agencies may not always have the necessary technical skills to structure viable PPP initiatives, making capacity-building efforts crucial.

Also, Nepal's financial markets remain relatively underdeveloped, limiting access to local financing for large-scale infrastructure projects. Without sufficient financial resources, many promising initiatives struggle to take off, further dampening investor interest.

To address these challenges, Nepal must adopt a multi-pronged strategy aimed at enhancing its investment climate. One essential step is capacity building, which involves investing in training programs for government officials to improve their ability to design, structure and manage bankable projects. Strengthening institutional knowledge will help create a more efficient PPP framework and improve project execution.

Policy reforms are equally important, with a focus on simplifying regulatory processes and establishing clear guidelines for PPPs. A well-defined and transparent regulatory environment will reduce uncertainty and attract more investors. Furthermore, developing effective risk-sharing mechanisms will encourage private sector participation by ensuring that risks are distributed fairly between public and private partners. These mechanisms could include government guarantees, insurance schemes or blended financing models that reduce the financial burden on private investors. International partnerships with institutions like the World Bank and the Asian Development Bank can also provide Nepal with access to financing and technical support. Collaborating with experienced global organisations will help bridge knowledge gaps and strengthen Nepal's ability to execute large-scale infrastructure projects successfully.

Promoting FDI through PPPs presents Nepal with an opportunity to drive sustainable development, address critical infrastructure needs, and generate employment. However, success will depend on the government's ability to present projects that inspire investor confidence. By tackling regulatory, logistical and financial challenges, Nepal can position itself as an attractive investment destination.

The insights gained from global discussions, such as those at the WAIPA roundtable — in which Nepal's Investment Board was an active, and impressive, participant — can provide valuable guidance for Nepal and other developing nations looking to leverage PPPs for economic growth. With the right strategies in place, Nepal can unlock its full FDI potential, fostering long-term economic progress and meeting its development goals.

**References**

Di Sibio, C. (2022, January 10). How to harness the transformative potential of public-private partnerships. World Economic Forum. Retrieved February 14, 2025, from https://www.weforum.org/stories/2022/01/how-to-harness-transformative-potential-public-private-partnerships/

Ersahin, I. (2024, October 1). IPAs must build investor-ready pipelines. fDi Intelligence.

Financial Times. (2021, September 27). CSR careers finally come of age — and are breaking sector boundaries. Retrieved February 14, 2025, from Financial Times: https://www.ft.com/content/eb537886-79dd-40b3-b2db-e82388621458

UNCTAD. (2024). Annex table I: FDI flows, by region and economy. In UNCTAD, World Investment Report 2024 (pp. 156-159). Geneva, switzerland: UN Trade & development.

UNCTAD. (2025). Global FDI estimated 8% down in 2024. Global Investment Trends Monitor(48).

UNIDO. (2021). Investment project preparation and appraisal. United Nations Industrial Development Organisation, Knowledge Hub. Vienna, Austria: United Nations Industrial Development Organisation.

WAIPA. (2024, May). This morning, WAIPA hosted an impactful roundtable session at the AIM Congress, dedicated to advancing sustainable development in Least Developed Countries (LDCs). Retrieved from LinkedIn: https://www.linkedin.com/posts/waipa_this-morning-waipa-hosted-an- impactful-roundtable-activity-7193972947718451200-y9qM/?utm_source=share&utm_ medium=member_desktop&rcm=ACoAAABLhVIBcKYmwjVXJ1vOIVFg4u8cbUn0jgM

World Bank. (2024). Benchmarking infrastructure development: PPP regulatory landscape – assessing quality and exploring reform. Washington D.C.: The World Bank Group. Retrieved from https://hdl.handle.net/10986/42235

World Bank. (2025). Benchmarking infrastructure development. The World Bank Group. Retrieved February 14, 2025, from from https://ppp.worldbank.org/public-private-partnership/library/benchmarking-infrastructure-development

World Bank. (2025). Business Ready (B-READY): Nepal. The World Bank Group. Retrieved February 14, 2025, from https://bpp.worldbank. org/en/economies/country/NPL

## SNIPPET PPP IN INFORMATION TECHNOLOGY

| Category | Details |
|---|---|
| Key Sub-Sectors | - Digital Economy: IT services, software, digital platforms. |
| | - Infrastructure: Fiber optics, data centers, cloud computing. |
| | - Startups: FinTech, AI, and e-commerce solutions. |
| Current Investments | - IT services export: USD 515 million (2022). |
| | - Investment in fiber optics expansion under Digital Nepal Framework (USD 25 million). |
| | - Government initiatives in e-governance: NPR 5 billion. |
| Potential Projects | - IT Parks in Kathmandu Valley and SEZs (PPP). |
| | - Cloud data centers and cybersecurity centers. |
| | - Digital health enterprise systems and blockchain applications. |
| Key Investment Areas | - Data Centers: Large-scale facilities for cloud computing. |
| | - Broadband Expansion: Rural and semi-urban areas. |
| | - Startups: AI, FinTech, and IoT applications. |
| Challenges | - Digital Divide: Limited rural connectivity. |
| | - Skilled Workforce: Shortage in advanced ICT roles. |
| | - Cybersecurity: Emerging risks with rapid digitization. |
| Future Growth Areas | - Digital Economy Leadership: Expand IT outsourcing. |
| | - Smart Cities: Integrate ICT for energy, transport, and governance. |
| | - Innovation Hubs: Support for startups in AI and FinTech. |
| Notable Initiatives | - Digital Nepal Framework: Roadmap for national digitization. |
| | - Major IT companies: F1Soft, e-Sewa, Khalti driving FinTech. |

# PUBLIC-PRIVATE PARTNERSHIPS IN NEPAL'S TRANSMISSION LINE DEVELOPMENT

# A Strategic Imperative

**Dr. Netra Gyawali, PhD in Power Systems Engineering from Kyoto University (2011), is an Associate Professor at IOE, Tribhuvan University, with over 20 years of experience in Nepal's energy sector. As former CEO of Rastriya Prasaran Grid Co. Ltd. (RPGCL), he led Nepal's first Transmission System Master Plan and pioneered the PPP framework for transmission infrastructure, including the Tamor-Dhungesanghu 220 kV line. He played a key role in designing Nepal's wheeling charge mechanism and optimizing grid resilience. His expertise spans feasibility, engineering, tendering (FIDIC/ICB), and construction oversight, with collaborations across the World Bank, ADB, and others. A published researcher and academic supervisor, his work advances energy security through sustainable, evidence-based planning.**

## 1. Background

Nepal has set ambitious targets to expand its electricity generation capacity, aiming for 13.5 GW by 2030 and 28.5 GW by 2035. Achieving these goals necessitates a robust transmission infrastructure, with estimated investments of NPR 560 billion and NPR 700 billion required for 2030 and 2035, respectively. However, the government's declining capital allocation for transmission projects, coupled with reduced support from development partners like ADB, World Bank, KfW, and AIIB, has created a significant financing gap. This shortfall has led to transmission bottlenecks, energy spillage during peak seasons, and substantial revenue losses for the Nepal Electricity Authority (NEA) and Independent Power Producers (IPPs). To overcome these challenges, Nepal must explore alternative financing approaches, including private sector participation. Global experiences highlight that unbundling power systems—separating generation, transmission, and distribution—enables efficiency, reduces financial burdens on governments, and fosters innovation. Private sector involvement plays a critical role in bridging funding gaps, enhancing operational efficiencies, and expediting infrastructure development in the transmission sector.

## 2. Challenges in Attracting Private Investment

Attracting private sector investment in Nepal's transmission sector is fraught with challenges due to the unique nature of transmission infrastructure development and operational dynamics. These challenges, often exacerbated by Nepal's specific socio-political and environmental context, include the following:

*2.1 High Capital and Sunk Costs:*

Transmission projects demand significant upfront investment, with costs running into billions of Nepali rupees. Once constructed, these costs are effectively sunk, as the infrastructure is immovable and specific to its purpose. The need for long-term planning compounds the issue, as transmission lines are designed to meet projected demand for the next 15–20 years, leaving little room for mid-term upgrades without service interruptions. Globally, many countries have mitigated this challenge through robust financial guarantees. For instance, Brazil's transmission sector attracted private investment by providing guaranteed returns through long-term concession agreements.

*2.2 Low Rate of Return and Long Payback Periods:*

Transmission projects generally offer low financial returns compared to other infrastructure investments, with extended payback periods. For example, in India, private investors in transmission lines under tariff-based competitive bidding often report low returns due to strict regulatory caps on tariffs. Also return period is set around 15 to 20 years. Such constraints discourage investors seeking quicker and higher returns.

*2.3 Risk of Cost and Time Overruns:*

Right-of-way (ROW) disputes, public opposition, and environmental concerns significantly delay project completion, escalating costs. In Nepal, for example, the Dhalkebar-Muzaffarpur cross-border transmission line faced delays due to land acquisition issues and opposition from local communities. Additionally, stringent regulations for wildlife conservation and forest clearance often prolong approval processes, further deterring private investors.

*2.4 Underutilization Risk:*

The nature of transmission lines as fixed assets means they can remain underutilized if user demand does not materialize as anticipated. In Nepal, the limited scale of industrialization and uneven energy demand creates uncertainty over whether transmission lines will operate at full capacity. In many Sub-Saharan African countries, private investors have hesitated to invest in transmission due to similar concerns about low utilization rates.

*2.5 Regulatory Ambiguities:*

Nepal lacks a well-defined policy framework that clearly delineates roles, responsibilities, and revenue mechanisms for private participation in transmission projects. In contrast, countries like Chile have successfully attracted private investors by offering clear and transparent regulatory frameworks, such as long-term contracts with fixed tariffs and government-backed guarantees.

*2.6 Limited Access to Financing:*

Nepal's relatively underdeveloped financial markets pose a significant barrier for private investors seeking long-term, low-interest funding for capital-intensive transmission projects. The lack of access to international financing, coupled with currency exchange risks, further exacerbates the problem. In Pakistan, private transmission projects under the China-Pakistan Economic Corridor (CPEC) have received financial backing from international investors, demonstrating how access to global capital markets can mitigate this challenge.

*2.7 Operational and Maintenance Risks:*

Once constructed, transmission lines require ongoing maintenance and upgrades to remain operational. The costs associated with these activities can be significant, and the private sector may be wary of taking on these additional financial and operational risks without adequate guarantees.

Addressing these challenges requires comprehensive reforms, including policy clarity, risk-sharing mechanisms, and innovative financing models. Lessons from global examples like Brazil, India, and Chile suggest that well-structured incentives and clear regulatory frameworks can significantly enhance private sector interest in the transmission sector.

## 3. Models for Transmission Line Financing and Construction

The development of transmission infrastructure requires innovative financing and construction models to overcome challenges such as high upfront costs, low returns, and operational risks. Below are the key models, along with global examples that illustrate their implementation:

*3.1 Traditional Model*

In the traditional model, the government funds transmission line projects directly, either through its budget or with subsidized and concessional loans from financial institutions, development partners, or EXIM banks.

***Features:***

- Government bears all costs and risks.
- Development partners like the Asian Development Bank (ADB) and the World Bank often provide low-interest loans.
- Suitable for critical infrastructure projects where private sector interest is limited due to risks or low returns.

***Example:***

Nepal has traditionally relied on this model, as seen in the development of the Dhalkebar-Muzaffarpur 400 kV cross-border transmission line. This project received funding from the World Bank and was constructed under the government's aegis, demonstrating the effectiveness of this model for essential projects.

However, given the declining budget allocation for transmission infrastructure and reduced support from development partners, the traditional model is becoming less sustainable.

*3.2 Public-Private Partnerships (PPP)*

The PPP model involves collaboration between the government and private entities to finance, construct, and operate transmission lines. This model can be implemented in two main ways:

*a. Special Purpose Vehicle (SPV)*

Formation In this approach, an SPV is created jointly by the government and private investors. The SPV is responsible for financing, building, and operating the transmission line.

***Features:***

- Risks and returns are shared between the government and private players.
- Long-term agreements ensure revenue streams through wheeling charges.

***Example:***

The Tamor–Dhungesanghu project is a 32 km, 220 kV double-circuit line with 103 towers and ACSR Twin Moose conductors, capable of carrying 700 MW, is Nepal's first transmission line initiative being developed under a PPP arrangement through an SPV- linking Tamor and Dhungesanghu substations, and paving the way for efficient evacuation of multiple hydropower plants in eastern Nepal. This project sets a precedent for private sector involvement in transmission development in the country.

*b. Tariff-Based Competitive Bidding*

Under this model, private players compete to build and operate transmission lines based on the tariffs they propose to charge for using the infrastructure.

***Features:***

- Encourages cost efficiency and innovation.
- Risks related to cost overruns and demand shortfalls are borne by the private entity.

***Example:***

India has successfully implemented this model, with multiple projects awarded through competitive bidding under the Tariff-Based Competitive Bidding (TBCB) guidelines. For instance, the Power Grid Corporation of India Ltd. (PGCIL) and private firms like Sterlite Power have participated in such bids.

*3.3 Merchant Transmission Lines*

Merchant transmission lines are entirely private ventures, where the developer assumes all risks and earns revenue through market-based charges from users.

***Features:***

- Fully funded and operated by private entities.
- Suitable for regions with high demand and predictable revenue streams.

***Example:***

The Neptune Regional Transmission System in the United States is a notable example. This privately funded transmission line connects New Jersey to Long Island, providing a reliable power supply to high-demand areas. However, the model's high-risk nature has limited its global adoption.

*3.4 Via Transmission Bonds and Debentures*

Issuing bonds and debentures allows utilities or governments to raise capital from domestic and international markets. This approach diversifies funding sources and reduces reliance on traditional loans.

***Features:***

- Enables utilities to raise large sums without immediate equity dilution.
- Appeals to institutional investors seeking stable returns.

***Example:***

In India, Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) regularly issue green bonds to finance renewable energy and transmission projects. These bonds have attracted both domestic and international investors due to their secure and predictable returns.

### *3.5 Nepalese Developing Model for Transmission Infrastructure*

To support the timely and sustainable development of Nepal's transmission infrastructure, a phased strategy must be adopted that leverages a mix of financing and implementation models:

- **Traditional Model:** Continue to utilize this model selectively for transmission projects of national significance where private sector participation is unlikely due to high risk or limited commercial viability.
- **PPP Model:** Prioritize this model for the next wave of transmission line development by fostering Special Purpose Vehicles (SPVs) and promoting competitive bidding. This approach is well-suited for projects with identifiable demand and moderate risk profiles, making it a practical and scalable solution in Nepal's current context.
- **Merchant Transmission Lines:** Explore pilot initiatives along power-intensive corridors to assess the commercial and technical feasibility of merchant models, where private developers invest based on long-term wheeling revenues.
- **Bond Issuance:** Utilize the financial strength and creditworthiness of the Nepal Electricity Authority (NEA) to issue green bonds or infrastructure bonds. These instruments can attract long-term capital from institutional investors for transmission expansion.

By diversifying financing mechanisms and drawing on global best practices, Nepal can accelerate transmission development while inviting private sector efficiency, innovation, and investment. Given that the traditional model is already established but faces delays and inefficiencies, the Public-Private Partnership (PPP) model stands out as the most promising next step. The following section will therefore focus in detail on how the PPP model can be effectively implemented for transmission line development in Nepal.

#### *a. Public-Private Partnership (PPP) Models in Nepal*

The Tariff-Based Competitive Bidding (TBCB) model is currently in its nascent stage in Nepal. This approach holds significant potential for cost efficiency and fostering competition. However, its successful implementation requires a robust regulatory framework and several prerequisites that may take considerable time to establish. Given these challenges, the TBCB model, while promising, is not immediately feasible for Nepal's urgent transmission infrastructure needs due to lack of policy leverage.

In contrast, the Special Purpose Vehicle (SPV) model is well-suited for immediate implementation. This model involves the creation of a separate legal entity (SPV) to develop, finance, and operate transmission projects. The SPV model is particularly advantageous for Nepal due to its readiness and the pressing need for transmission infrastructure development. The model facilitates cost-sharing among equity partners, which include government utilities and Independent Power Producers (IPPs) with hydropower projects. This cost-sharing mechanism reduces individual expenses and promotes the use of common transmission corridors, thereby saving land and minimizing environmental impact.

#### *b. Case Study: SPV-Based Transmission Line Development in Nepal*

In alignment with the Government of Nepal's policy directives, Rastriya Prasaran Grid Company Limited (RPGCL) has initiated a Special Purpose Vehicle (SPV) model to develop transmission lines under a limited Public-Private Partnership (PPP) framework. This approach was piloted in the Tamor River corridor, a region with high hydropower generation potential.

RPGCL invited Independent Power Producers (IPPs) operating in the Tamor basin to collaborate in developing a shared transmission corridor for evacuating their power. Instead of pursuing individual evacuation routes, which had been the earlier approach, IPPs are now encouraged to join a unified 220 kV line. As shown in the table, 10 IPPs—collectively generating 632 MW—are currently aligned to use this common corridor, which will operate at 132 kV and 220 kV levels.

Previously, these IPPs had applied for separate transmission licenses, resulting in a fragmented approach that led to overlapping corridors, excessive land use, and environmental disruption (Figure A). In contrast, the SPV model proposes a single, integrated 220 kV transmission line (Figure B) that optimizes the route and minimizes duplication.

By implementing this shared infrastructure model, Nepal can save approximately 288 km of transmission line length and 672 hectares of land, significantly reducing environmental impact and social conflict. Economically, the corridor is projected to yield long-term savings of NPR 4.5 billion (approximately USD 34 million), demonstrating the financial and ecological advantages of coordinated transmission planning under the PPP framework.

| Items | MW | kV | Saved km | Land (Ha) | Cost (Cr) |
|---|---|---|---|---|---|
| Ghunsa Khola HPP(71.5MW) | 71.5 | 220.0 | 32.0 | 96.0 | 906.4 |
| Simbuwa Khola(70.7 MW) | 70.7 | 220.0 | 32.0 | 96.0 | 906.4 |
| U Ghunsa Khola(78MW) | 78.0 | 220.0 | 32.0 | 96.0 | 906.4 |
| U JSimbuwa KholaHPP(45MW) | 45.0 | 132.0 | 32.0 | 57.6 | 250.8 |
| Upper Tamor A HPP(72MW) | 72.0 | 220.0 | 32.0 | 96.0 | 906.4 |
| Ghunsa-Tamor HPP(43 MW) | 43.0 | 132.0 | 32.0 | 57.6 | 250.8 |
| Upper Tamor Cluster (9.5MW) | 9.5 | 132.0 | 32.0 | 57.6 | 250.8 |
| Super Tamor HEP (170 MW) | 170.0 | 220.0 | 32.0 | 96.0 | 906.4 |
| Tamor Khola-5 HEP( 40 MW) | 40.0 | 132.0 | 32.0 | 57.6 | 250.8 |
| Upper Tamor HEP( 32.5MW) | 32.5 | 132.0 | 32.0 | 57.6 | 250.8 |
| Total Redudency saved | | | 288.0 | 672.0 | 5786.0 |
| Cost saved (Cr) | | | | | 4879.6 |
| Cost Added (Cr) | | | | | 400 |
| Net Cost saved | | | | | 4479.6 |

c. *Company Model of Tamor-Dhungesanghu Power Transmission Company*

The Special Purpose Vehicle (SPV) formed for the Upper Tamor transmission corridor—Tamor Dhungesanghu Power

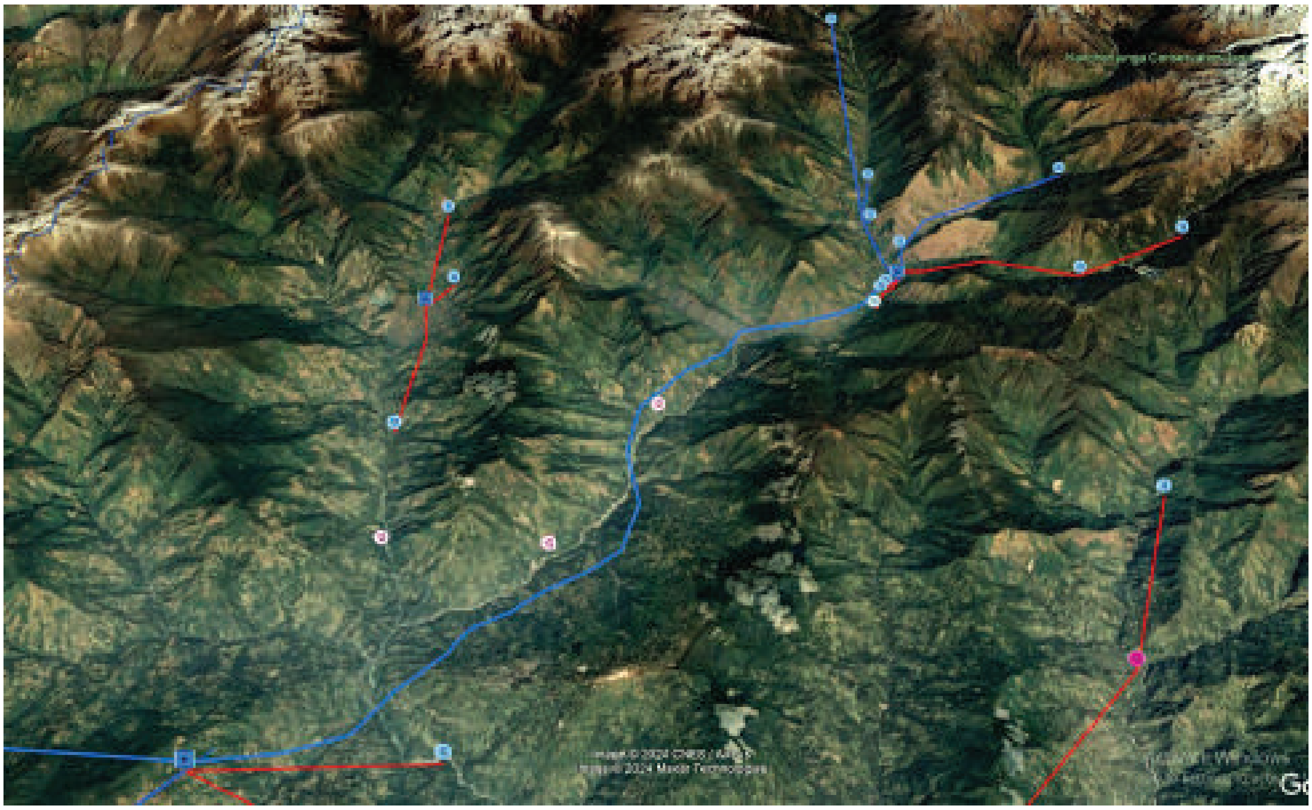


**Figure A**

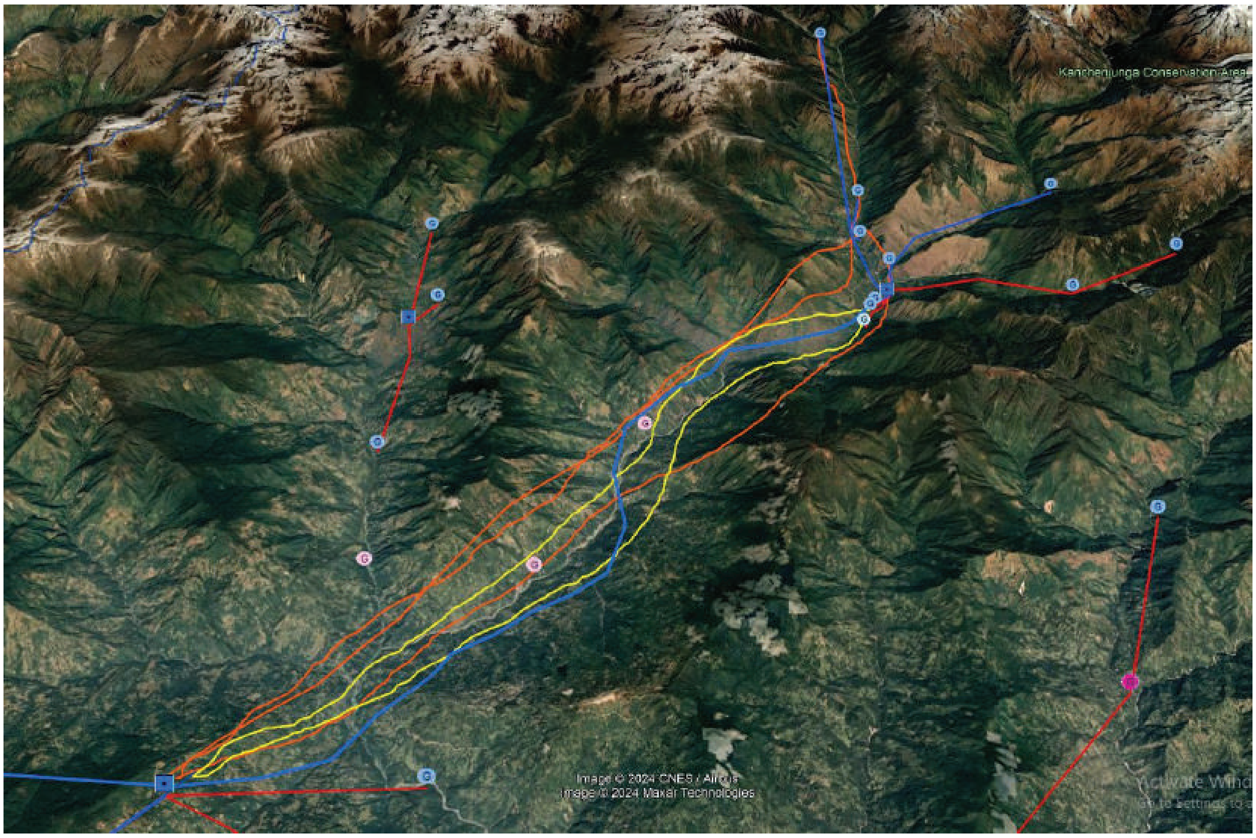



**Figure B**

Transmission Company—follows a hybrid equity and wheeling charge-based financial model. This initiative is led by Rastriya Prasaran Grid Company Limited (RPGCL), a public sector entity, in partnership with five Independent Power Producers (IPPs) active in the Upper Tamor basin.

Equity participation by IPPs is optional, based on their readiness and urgency to evacuate power. Those who foresee timely project completion and require immediate transmission infrastructure opt to invest in the SPV. IPPs with uncertain commissioning schedules can still access the line by paying wheeling charges, without participating in equity.

The equity structure of the SPV is distributed as follows:

| Description | Share % |
|---|---|
| National Transmission Grid Company Limited | 26% |
| Remit Hydro Limited | 10% |
| Simbuwa Remit Hydro Limited | 9% |
| Crystal Power Development Private Limited | 42% |
| Union Hydropower Limited | 8% |
| Nepal Hydro Venture Private Limited | 5% |
| Total | 100% |

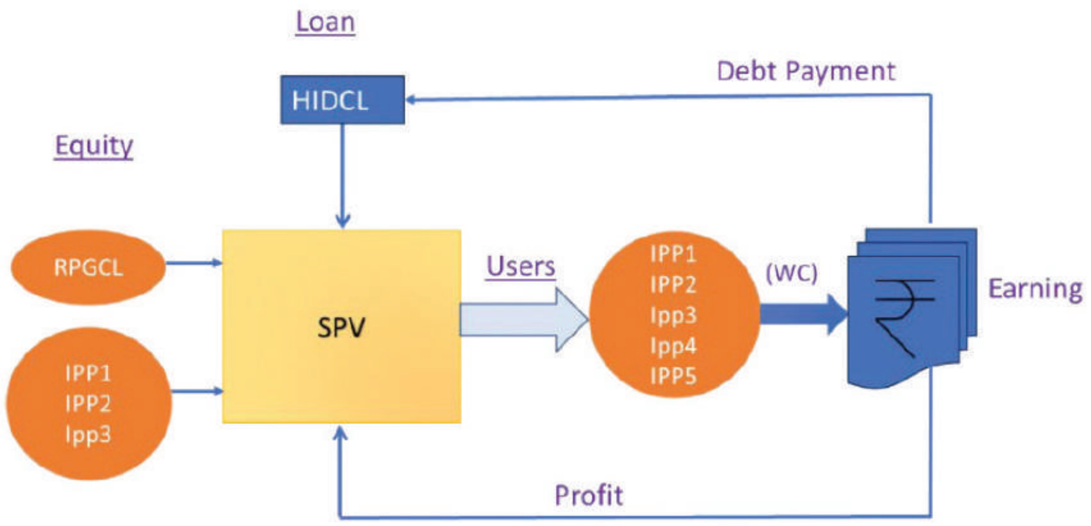
Cost recovery for the SPV is achieved through wheeling charges paid by all users of the line, including the equity-holding IPPs. These charges support debt servicing—currently financed through HIDCL, the Government of Nepal's investment arm. After covering operation and maintenance (O&M) expenses, net profits are distributed to shareholders as dividends.

A key strength of this SPV model lies in its risk alignment. Since the equity partners are also the primary users of the infrastructure, they are directly incentivized to complete construction on time, minimizing risks of energy spillage. Furthermore, revenue risk is mitigated through advance capacity bookings tied to each IPP's Commercial Operation Date (COD), ensuring predictable income for the SPV.

## 4. Underlying Challenges

Implementing Public-Private Partnership (PPP) models in Nepal faces several challenges, including the need for policy reform, environmental and forest law/rule reform, and institutional reform in the power sector. These reforms are essential to create a conducive environment for PPP projects.

**Uncertainty in COD:** There is a lack of Commercial Operation Dates (CODs) for Independent Power Producers (IPPs) that have




not entered into Power Purchase Agreements (PPAs) with the Nepal Electricity Authority (NEA). This uncertainty leads to potential earning shortfalls for the SPV, making it difficult to secure financing and manage cash flows effectively.

**Revenue Management Difficulties:** Managing revenue in the early stages of operation is challenging due to underutilization of the transmission line and varying schedules of CODs. These financial and operational uncertainties can reduce investor confidence, making it harder to attract private investment for future projects.

## 5. Outlook

Transmission line development remains a critical pathway for advancing Nepal's power sector, enabling timely power evacuation, regional connectivity, and reliable grid operations. While the traditional government-led model has played a foundational role, it is increasingly constrained by financial, institutional, and implementation bottlenecks. Among the alternative approaches, the Special Purpose Vehicle (SPV) model—representing a limited form of Public-Private Partnership (PPP)—has emerged as a feasible and scalable solution. The pilot project in the Tamor corridor, under the Tamor Dhungesanghu Power Transmission Company, demonstrates that the SPV model carries low construction and revenue risk, ensures alignment of interest between public and private actors, and remains broadly acceptable to stakeholders. Its early success highlights its potential for replication in other strategic corridors across Nepal, positioning it as a practical model to accelerate national transmission infrastructure development.

NEPAL'S MOMENT

# Catalyzing a Global Innovation Ecosystem from the Ground Up

**Mr. Himal Karmacharya is the President and founder of Leapfrog Technology,Inc. He currently leads the global operations and business development for Leapfrog. He is instrumental to growing Leapfrog to more than 450 employees across Nepal, India, Vietnam and US. An engineer by training and an MIT alumnus, Himal has over 25 years of experience spanning enterprise, healthcare, and data. He's an accomplished business leader and speaker, and has previously served in leadership roles at Verisk Health, Oracle, and Motorola. With a vision to put Nepal on the global map, Himal founded Leapfrog in 2010, a company that is now trusted by 200+ enterprises worldwide.**

The ongoing diffusion of technological innovation beyond traditional global hubs presents a significant opportunity for emerging economies to reposition themselves in the global value chain. Among these, Nepal—a country traditionally framed through the lens of labor migration and aid dependency—is quietly cultivating the preconditions for a more dynamic role as a contributor to global innovation. This article critically examines Nepal's positioning in the global innovation economy, not as a low-cost auxiliary, but as an emergent center of design, engineering, and systemic problem-solving. Drawing on comparative case studies, policy analysis, and ecosystem diagnostics, it presents a strategic blueprint for Nepal to harness its human capital, institutional reform momentum, and global networks to build a robust, export-facing innovation ecosystem. This narrative challenges reductive economic stereotypes, proposing instead a more grounded, capability-driven development model fit for the age of distributed innovation.

### 1. Reframing Nepal in the Global Innovation Economy

The global economy is increasingly organized around networks of innovation, not just networks of production. In this context, countries that were once consigned to peripheral roles in manufacturing or service outsourcing are now exploring ways to integrate into higher-value functions such as design, R&D, and product strategy. This is not just a theoretical possibility—it is already happening in countries like Vietnam, Colombia, and Rwanda, where strategic interventions in human capital, regulatory frameworks, and digital infrastructure have enabled significant upward mobility in the innovation value chain.

Nepal stands at a similar juncture. Its innovation narrative, however, remains underdeveloped. Often reduced to discussions around remittances and political instability, Nepal's profile in international development and economic strategy circles overlooks the rise of a domestic tech workforce, an emergent startup culture, and transnational entrepreneurial communities with the capacity to bridge markets. This article argues that Nepal's moment lies not in narrowly imitating successful innovation ecosystems, but in crafting a context-specific model that fuses local capabilities with global market integration.

## 2. Historical Constraints and Path Dependencies

Understanding Nepal's current limitations requires a look at the historical contingencies that have shaped its economic development. Unlike other Asian economies that industrialized via export-led manufacturing (e.g., South Korea, Taiwan), Nepal never experienced a phase of industrial scaling. Its post-1990 liberalization, while opening the economy, lacked the institutional scaffolding necessary to channel private investment into productive sectors. As a result, Nepal's most reliable export became its labor force. This produced a development model centered on remittances and consumption rather than value-added production.

The technology sector, by contrast, offers a pathway less dependent on physical infrastructure and more on human capital—an area where Nepal has quietly accumulated assets. Over the past two decades, the proliferation of engineering colleges, increased internet penetration, and exposure to global work cultures (via the diaspora and BPO markets) have created a technically literate, globally attuned workforce. This forms the bedrock of Nepal's potential innovation trajectory, even if the institutional and infrastructural environment has yet to catch up.

## 3. Talent as National Endowment: Unpacking the Human Capital Advantage

Nepal's emerging strength lies in its demographic profile and educational pipeline. With a median age of just over 24 and more than 30,000 annual STEM graduates, the country has a potentially transformative base of digital-native professionals. However, raw numbers are only part of the equation.

At Leapfrog Technology Inc, I've seen firsthand how capability development transforms outcomes. Our teams in Nepal, working alongside peers in the U.S., India, and Latin America, have built digital platforms that have reached millions—from managing COVID-19 vaccine rollouts in Seattle to supporting rural hospitals through open-source health systems. These are not isolated successes—they are replicable proof points. The key has been exposure to complex challenges, rapid feedback loops, and mentorship that encourages autonomy and systems thinking. Nepal's STEM graduates are not short on talent; they are short on structured opportunities to grow into leaders. Building that scaffolding—through project-based learning, meaningful internships, and senior mentorship—is how we close the capability gap and create a globally competitive workforce.

Bridging this gap requires a rethinking of both higher education and early-career experience. Universities must become embedded in real-world problem-solving ecosystems, offering curricula that integrate design thinking, regulatory analysis, and agile methodologies. Internships must become not performative appendages but structured programs with clear learning outcomes and pathways into full-time employment. Only by institutionalizing such transitions can Nepal convert its demographic dividend into innovation leadership.

## 4. Comparative Lessons: What Peer Economies Reveal

A study of peer economies reveals instructive lessons. Estonia, for example, has successfully branded itself as a digital nation by integrating e-governance with startup policy and by fostering public-private collaboration in digital infrastructure. Uruguay leveraged a similar strategy in ed-tech and fintech by systematically aligning education reform with export-oriented innovation policy.

Vietnam, perhaps the closest parallel in terms of scale and regional dynamics, has taken a hybrid approach—combining foreign investment attraction with state-led capability building in software and engineering. Its success was not accidental but underwritten by deliberate policy design, including:

- Large-scale vocational reskilling initiatives
- Sector-specific export incentives
- Special economic zones tailored to tech investment

Nepal must take these examples not as blueprints but as strategic inspiration. The core lesson is that innovation ecosystems require policy intentionality, cross-sectoral coordination, and long-horizon investment strategies.

### 5. Governance and Institutional Modernization

Nepal's governance challenges in the context of innovation are less about the absence of formal structures and more about the fragmentation and unpredictability in how they are implemented. The country possesses a suite of modern laws related to foreign direct investment, intellectual property, and digital governance, yet enforcement remains inconsistent. This inconsistency erodes trust and increases transaction costs—two dynamics that are especially harmful in sectors driven by speed and agility, such as technology.

More fundamentally, Nepal's bureaucratic apparatus still reflects a logic of control rather than facilitation. The slow, paper-based processing of business registrations, inconsistent tax enforcement, and multi-layered licensing systems discourage entrepreneurs from formalizing their ventures. For investors, the opacity in approval timelines and policy interpretation introduces risks that are difficult to hedge.

Institutional reform, then, must focus less on the passage of new legislation and more on improving the fidelity of execution. Countries that have successfully enabled innovation through governance reform—such as Rwanda, Estonia, and Singapore—share one trait: a commitment to bureaucratic professionalism grounded in performance metrics, digital transparency, and policy coherence.

Nepal can draw on these lessons to re-engineer its institutions toward predictability and efficiency. Regulatory sandboxes, for instance, have proven effective in bridging innovation with compliance in fintech and healthtech. Similarly, one-stop digital investment platforms can flatten the bureaucratic curve, allowing entrepreneurs to focus on value creation rather than administrative navigation. But these tools only work if embedded in a broader shift in institutional culture—from policing to enabling.

### 6. Infrastructure and the Preconditions for Innovation Density

Innovation does not arise in a vacuum. It is embedded in environments where talent, information, and capital flow freely. Nepal's infrastructure deficits—particularly in power reliability, internet quality, and data center availability—are well-documented. But what is less acknowledged is how these deficits structure the geography of innovation opportunity.

In Kathmandu and select urban corridors, ad hoc private investments have closed some of the infrastructural gaps. Private firms have installed redundant power systems, leased international bandwidth, and created localized server farms to ensure operational continuity. But this model of self-reliance cannot scale to a national innovation system. It imposes prohibitive costs on startups and sidelines regions outside major metros from meaningful participation.

The solution is not merely building more infrastructure but rethinking it as a platform for innovation density. National investment in Tier III or higher data centers, for example, enables cloud-based business models in sensitive sectors such as digital health and civic tech. High-throughput internet access in secondary cities expands the geography of innovation, allowing talent outside Kathmandu to participate in and contribute to digital economies.

Moreover, infrastructure must be considered in tandem with regulatory enablement. A data center is not valuable if data localization policies are unclear. High-speed internet is not empowering if online payment gateways remain restricted. Infrastructure, in this sense, must be governed as a strategic enabler—an active component of national competitiveness in the digital age.

### 7. Public-Private Collaboration: A Missing Institutional Interface

In mature innovation economies, public-private collaboration is not incidental—it is institutionalized. Governments articulate national challenges; private actors compete to solve them; and mechanisms exist to scale what works. In Nepal, this dynamic remains nascent.

What is striking is the parallel rise of need and capability. On one side, the state faces urgent demands for digital transformation in health, education, taxation, and disaster response. On the other, a growing number of Nepali firms possess the technical and organizational capacity to deliver sophisticated digital services. What is missing is the connective tissue: a procurement and partnership model that enables iterative co-creation rather than transactional contracting.

This is not simply a call for government to "work with startups." It is a call for systemic redesign. Agile contracting frameworks, performance-based procurement, and sandboxed pilots can dramatically reduce time-to-deployment while increasing the quality of public service delivery. Equally important is the role of intermediaries—innovation labs, consortia, and neutral facilitators—that can translate public-sector needs into solvable technical challenges.

Countries like India, with its Government e-Marketplace (GeM), or Chile, with its "ChileCompra" innovation arm, offer models for how procurement can become a driver of innovation. Nepal must move in a similar direction, not out of ideology but necessity: without effective public-private interfaces, the government will remain dependent on foreign contractors, and domestic capabilities will atrophy.

## 8. Financing Innovation: Bridging the Capital Formation Gap

One of the paradoxes in Nepal's startup ecosystem is that while the volume of entrepreneurial activity is increasing, the capital stack has not evolved to support it. The early-stage segment is beginning to mature, thanks to a rise in angel networks and local incubators. But the critical missing middle—growth-stage finance—is virtually absent.

This creates a developmental bottleneck. Startups that demonstrate product-market fit struggle to scale. Promising founders are forced to relocate abroad to access risk-tolerant capital. The result is an ecosystem that continuously seeds but rarely harvests.

The problem is not only one of capital supply but of capital structure. Nepal's commercial banks are constrained by regulatory frameworks that prioritize asset-backed lending. Venture capital, by contrast, is fundamentally about risk absorption, not collateral recovery. Bridging this gap requires a layered financial architecture:

- First-loss capital from government or development agencies to de-risk private investment
- Co-investment vehicles involving diaspora capital with patient timelines
- Innovation funds aligned with national priorities (e.g., health, green tech, education)

The goal is not to replicate Silicon Valley's venture model but to build a financial system that matches Nepal's scale and institutional maturity. Countries like Kenya and Bangladesh have demonstrated that structured innovation finance—combined with regulatory experimentation—can unlock large-scale impact in even constrained environments.

## 9. Diaspora as Innovation Infrastructure

Diaspora engagement in Nepal has traditionally focused on remittances—a lifeline for household income and foreign exchange. But this framing is increasingly inadequate. The Nepali diaspora includes thousands of professionals embedded in global innovation hubs, from Silicon Valley to Singapore. They represent not just monetary capital but relational capital—networks, insights, and reputational bridges.

To leverage this potential, Nepal must reframe its diaspora policy away from charity and toward co-creation. Programs that enable short-term return of diaspora talent—through fellowships, secondments, or visiting faculty roles—can seed knowledge transfer in critical sectors. Equally, digital engagement platforms can allow diaspora professionals to mentor local entrepreneurs or advise government task forces without physically relocating.

The policy challenge is twofold: building mechanisms that facilitate engagement, and fostering a domestic environment that is credible and compelling enough to attract it. This requires legal clarity on investment rights, cultural openness to external expertise, and a narrative that positions diaspora not as saviors but as partners.

Israel's innovation success is frequently attributed, in part, to its diaspora mobilization strategy. But the key lesson is not replication—it is intentionality. Nepal must decide whether its global citizens are peripheral or integral to its innovation trajectory. The opportunity cost of inaction is already visible in missed investments, disconnected networks, and underutilized expertise.

## 10. Toward a National Innovation Compact

The final imperative is strategic coherence. Nepal does not need more pilots, isolated reforms, or inspirational slogans. What it needs is an innovation compact: a binding, cross-sectoral commitment to place innovation at the heart of national development.

This compact must be more than a policy document. It must be a governance architecture that aligns ministries, mobilizes capital, incentivizes collaboration, and tracks performance. At its core should be a recognition that innovation is not the concern of any single ministry or industry—it is a general-purpose capability, foundational to national competitiveness.

Operationalizing this compact requires institutional vehicles: a National Innovation Council with decision-making authority, a digital public infrastructure backbone, and annual metrics-driven reviews of ecosystem health. It also requires symbolic leadership—clear signals from political, business, and academic leaders that innovation is a shared national project, not a niche sectoral concern.

Countries that have transitioned from aspirants to participants in the global innovation economy—whether Finland in the 1990s or Rwanda in the 2010s—did so not through isolated excellence, but through system-wide alignment. Nepal must now make a similar bet on itself: not as a service provider, but as a problem-solver on the global stage.

As a founder operating at the intersection of global markets and Nepali talent, I believe this is Nepal's window of opportunity—but windows do not stay open forever. At Leapfrog, we are doubling down on our investment in Nepal: building an AI Center of Excellence, expanding innovation-led partnerships in health and education, and nurturing the next generation of product leaders. But no private initiative can scale fast enough without public commitment. What we need now is not more inspiration, but implementation. For policymakers, investors, and institutions: the time to act is now. Let's build the platform that allows Nepali talent to lead—not just follow—in the global innovation economy.

CATALYZING IMPACT INVESTMENT THROUGH PPPS

# Nepal's Private Equity Approach to Sustainable Development

**Dr. Manish Thapa is a leading figure in Nepal's financial and academic sectors. He is the Founding Managing Partner of Global Equity Fund (GEF), Nepal's first SEBON-licensed private equity and venture capital fund, and Executive Chairman of Nepal Infrastructures Investment Fund (NIIF). He has served on the Board of Laxmi Sunrise Bank and led its 2023 merger. He is a board member of NPEA, AMCHAM, and FNCCI's Investment Forum. Appointed Honorary Consul of Costa Rica in Nepal in 2024, he promotes bilateral cooperation. Academically, he is Visiting Research Professor at the University of Warsaw and formerly served at UPEACE, Costa Rica. He has held prestigious fellowships at Brown, McGill, Uppsala, and Notre Dame universities.**

**The Catalyst in the Partnership: Unpacking Private Equity's Role in Public-Private Partnerships**

In an era where governments globally are grappling with significant infrastructure deficits and constrained public budgets, Public-Private Partnerships (PPPs) have become a cornerstone of public project delivery. These collaborations leverage private sector efficiency and capital to build and maintain essential infrastructure. While the public sector sets the vision and the private sector brings operational expertise, a powerful and often unseen force is increasingly playing a pivotal role in the success of these ventures: Private Equity Funds (PE). With their deep pools of capital, financial acumen, and a sharp focus on value creation, and focus on financial returns, Private Equity Funds act as powerful catalysts in the PPP landscape, bringing both significant advantages and unique challenges to the table.

Public-Private Partnerships are essentially long-term contracts between a public authority and a private entity to deliver a public asset or service, with the private partner assuming substantial financial, technical, and operational risk in the project (World Bank, n.d.). The rationale is to harness private sector innovation and discipline to achieve better value for money than traditional public procurement allows. Into this framework enters private equity, a distinct class of investor that raises capital from institutional investors to acquire, manage, and eventually sell private companies or assets, with the goal of generating high returns (Investopedia, 2023).

*The Value Proposition: Capital, Expertise, and Discipline*

The primary and most evident role of private equity in

PPPs is as a significant source of equity capital. Large-scale infrastructure projects, such as power plants, toll roads and airports, require substantial upfront investment that can strain public finances. PE funds, with their large pools of committed capital, are well-positioned to fill this funding gap. As Della Croce and Gatti (2014) note, infrastructure has become an increasingly attractive asset class for institutional investors, and PE firms act as the primary conduits for this capital flow into PPPs.

Beyond the provision of capital, PE firms bring a level of financial sophistication and managerial oversight that can be transformative for a project. Their involvement typically entails a rigorous due diligence process, which can lead to more robust project planning and risk assessment. According to a report by the Organisation for Economic Co-operation and Development (OECD), private sector participation, including that of PE firms, can bring "greater discipline to project selection and management" (OECD, 2008, p. 15). This discipline is driven by the PE firm's own fiduciary duty to its investors to ensure the project is financially viable and generates a return.

Furthermore, PE firms often take an active role in the governance of the special purpose vehicle (SPV) created for the PPP project. They are not passive investors; they are active owners. This "hands-on" approach can lead to significant operational efficiencies. By bringing in experienced management teams, implementing performance-driven incentives, and focusing on cost control, PE firms can enhance the operational performance of the infrastructure asset throughout its lifecycle (Engel et al., 2014). This active management style is geared towards maximizing the value of the asset, which, in a well-structured PPP, should align with the public's interest in having a well-maintained and efficiently operated facility.

*A Double-Edged Sword: Criticisms and Considerations*

Despite the clear benefits, the involvement of private equity in public infrastructure is a subject of considerable debate. The core of the criticism lies in the potential misalignment of interests between the PE firm's objective of maximizing shareholder returns and the public's need for affordable and high-quality services. Critics argue that the pursuit of high returns can lead to aggressive financial engineering, such as loading the project company with debt, or to practices that prioritize profit over public welfare, such as cutting corners on maintenance or charging excessive user fees (Shaoul, 2005).

The relatively short investment horizon of a typical PE fund (often 5-10 years) compared to the long lifespan of an infrastructure asset (often 30 years or more) also raises concerns. This can create a focus on short-term gains rather than long-term sustainability. However, proponents argue that the need for a successful "exit" – selling their stake at a profit – incentivizes the PE firm to ensure the asset is in excellent condition to attract a buyer, which ultimately benefits the public sector in the long run (Hodge & Greve, 2007).

Transparency is another critical issue. The private nature of PE funds can sometimes be at odds with the public's right to information regarding essential public services. Ensuring robust contractual clauses that mandate transparency and public accountability is therefore crucial for mitigating these risks.

*The Road Ahead: A Symbiotic Relationship*

As governments around the world grapple with the challenge of modernizing their infrastructure, the role of private equity in Public-Private Partnerships is set to grow. The vast sums of capital managed by PE firms represent a vital resource for funding the next generation of public works.

The key to a successful and sustainable partnership lies in a clear alignment of interests. The public sector must be a savvy and diligent partner, adept at structuring contracts that safeguard the public good. In turn, private equity firms must recognize that long-term value creation in the public sphere is intrinsically linked to delivering high-quality, reliable, and affordable services.

When this symbiotic relationship is achieved, the result is a powerful engine for progress – one that leverages the best of both the public and private sectors to build a more prosperous and resilient future for all. Private equity, once on the periphery of public infrastructure development, is now firmly in the driver's seat, and the landscape of our communities is being reshaped as a result.

**Taming the Rivers: A Case Study on Hydropower, Public-Private Partnerships, and Private Equity in Nepal**

Nestled in the Himalayas, Nepal possesses a staggering theoretical hydropower potential of over 83,000 megawatts (MW), a resource often described as the nation's "white gold" (CompanyNP, n.d.). However, for decades, this immense potential remained largely untapped due to formidable challenges, chief among them a lack of domestic capital and the technical expertise required for such complex undertakings. To bridge this gap, Nepal has increasingly turned to the Public-Private Partnership (PPP) model, creating a framework that invites private investment into its energy sector. Within this framework, a new and powerful catalyst is emerging: the private equity (PE) fund. By mobilizing both foreign and, increasingly, domestic capital, PE funds are playing a pivotal role in financing and shaping the future of Nepal's most critical infrastructure. The synergy between public need, private capital, and operational discipline makes Nepal's hydropower development a compelling case study of the modern PPP model in action.

*The Policy Framework: Inviting Private Capital*

The journey towards private sector participation in Nepal's energy sector began in earnest with the introduction of landmark legislation like the Electricity Act of 1992 and the Hydropower Development Policy of 2001. These policies were designed to break the state monopoly and attract private investment by creating a more predictable and incentive-driven environment (Ministry of Energy, Water Resources and Irrigation, 2001; Paudel & Adhikari, 2022).

The predominant PPP model used is the Build, Own, Operate, and Transfer (BOOT) arrangement. Under this model, a private company (often a special purpose vehicle) finances, builds, and operates a hydropower plant for a specified concession period (typically 30-35 years). The government's role is that of a facilitator and regulator, and its state-owned utility, the Nepal Electricity Authority (NEA), acts as the sole off-taker, guaranteeing the purchase of the generated electricity through a long-term Power Purchase Agreement (PPA). This PPA is the financial bedrock of the project, providing the revenue certainty that private investors and lenders require.

**Case Spotlight 1: The International PPP - Upper Trishuli-1**

A quintessential example of a large-scale, foreign-led PPP is the 216 MW Upper Trishuli-1 (UT-1) Hydropower Project. This project is a clear illustration of how the PPP model can attract significant foreign direct investment (FDI) and international expertise.

- **The Partnership:** The public partner is the Government of Nepal, which provides the license and policy support. The private partner is the Nepal Water and Energy Development Company (NWEDC), a consortium led by South Korean companies (Korea South-East Power, Daelim Industrial) with the International Finance Corporation (IFC) also holding an equity stake (IFC, 2019).
- **The Financing:** UT-1 is one of the largest private investments in Nepal's history, with a total project cost of approximately USD 647.4 million. The financing structure is a complex blend of equity (USD 194.2 million) and debt (USD 453.2 million) (AIIB, 2023). The debt was arranged by the IFC, bringing together a consortium of nine international lenders, including the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), and other development finance institutions (DFIs). This demonstrates the crucial role of DFIs in de-risking such large projects and providing confidence to other private investors.
- **The Impact:** The project is being developed under a 35-year BOOT model. The IFC (2019) has hailed it as a "game-changer for Nepal," expecting its financing structure and use of international contract standards to serve as a template for future hydropower projects. It is projected to increase Nepal's electricity supply by one-third and provide reliable power to millions.

**Case Spotlight 2: The Domestic Private Equity Emergence - Mewa Developers Limited.**

While large projects like UT-1 demonstrate the power of FDI, the maturation of Nepal's domestic capital market is showcased by the growing involvement of local investment funds, including private equity.

- **The Partnership:** Mewa Developers Limited (MDL), a public company established to develop energy projects under the Build, Own, Operate, and Transfer (BOOT) mechanism is developing two Peaking Run-of-River (PRoR) projects in concert:**Middle Mewa Hydropower Project (MMHP):** Initially planned as a 49 MW project, its capacity was later upgraded to 73.5 MW, in part by utilizing the water discharged from the Siwa Khola project and **Siwa Khola Hydropower Project (SKHP):** A smaller 9.3 MW project whose output directly enhances the efficiency and capacity of the larger Middle Mewa plant. The key investor in this project is Global Equity Fund and Avasar Equity Fund, both SEBON-licensed domestic private equity and venture capital fund manager.

- **The Financing:** In 2024, Global Equity Fund made an equity investment of over NPR 100 million into the project and Avasar Equity Fund invested NPR 400 Million as equity in the project. While the majority of the project's cost is financed through debt from a consortium of local banks, Global and Avasar's equity injection is critical. It provides risk capital, validates the project's commercial viability, and brings a higher level of governance and financial oversight.
- **The Impact:** The involvement of a dedicated PE fund like Global and Avasar signifies a crucial step in the evolution of Nepal's investment landscape. It demonstrates that hydropower projects are becoming an attractive asset class for sophisticated domestic and locally-focused institutional investors. While Global Equity Fund and Avasar Equity Fund are investor in the Mewa projects, the broader ecosystem is populated by a growing number of similar domestic fund. These funds are critical to the "missing middle." They are positioned to finance projects that are too small or too nascent for large international DFIs but require more capital and professional management than individual promoters can provide alone. By raising capital from domestic institutions and high-net-worth individuals, funds like GEF and Avasar are building a sustainable, local source of risk capital that is essential for the continued growth of Nepal's hydropower sector and other industries.

## Analysis: Challenges and the Path Forward

Despite these successes, the path of hydropower PPPs in Nepal is fraught with challenges. Political instability, a complex bureaucracy, and the potential for policy changes create significant regulatory risks for long-term investors. The country's fragile geology and susceptibility to natural disasters pose serious technical and construction risks. Furthermore, foreign investors face significant foreign exchange risk, as PPAs are often denominated in local currency while their investments and loans are in foreign currency.

From a social perspective, land acquisition, resettlement of affected communities, and equitable benefit-sharing are persistent and sensitive issues that can lead to project delays and social conflict (LAHURNIP, 2017). For the PPP model to remain successful and sustainable, these challenges must be addressed. This requires:

- **Stable and Transparent Policies:** A consistent, long-term policy vision from the government is essential to build investor confidence.
- **Robust Risk Mitigation:** This includes developing effective mechanisms for managing foreign exchange risk, such as hedging facilities, and ensuring contracts fairly allocate geological and political risks.
- **Effective Social Engagement:** Early, transparent, and fair engagement with local communities, including offering them a genuine stake in the projects through local share allocations, is critical for social license to operate.

## Conclusion

Nepal's hydropower sector offers a powerful case study in the evolution and application of the Public-Private Partnership model. Faced with a monumental infrastructure challenge, the country has successfully created a framework that leverages private capital and expertise to unlock its natural resources. The model has matured from its early days to encompass sophisticated, multi-billion-dollar international consortia as seen in Upper Trishuli-1, and is now fostering a domestic ecosystem of private equity investment, as evidenced by Global Equity Fund and Avasar Equity Fund's activities.

Private equity firms, in this context, are more than just financiers; they are active partners that bring discipline, governance, and a focus on operational excellence. While significant challenges related to political, financial, and social risks remain, the path forward is clear. By fostering a stable policy environment, embracing transparent processes, and ensuring that the benefits of development are shared equitably, Nepal can continue to harness the power of the PPP model. This collaborative approach, blending public ambition with private capital, is the key to transforming Nepal's immense hydropower potential into lasting economic prosperity.

The case of the Upper Trishuli-1 Hydropower Project and Mewa developers illustrates that a modern Public-Private

Partnership is rarely a simple two-party agreement. It is a sophisticated, multi-stakeholder collaboration where the government provides the policy framework and revenue guarantees; local banks provide the bulk of the financing through debt; and a diverse group of equity partners—including promoters, institutional investors, the general public, and private equity funds—provide the crucial risk capital.

Private equity firms like Global Equity Fund are stepping into a vital role as catalysts in this ecosystem. They are not merely passive financiers but active partners who bring capital, discipline, and a focus on value creation. As the domestic PE landscape continues to mature with the active participation of funds like Avasar Equity, it will become an increasingly powerful engine for mobilizing private capital, professionalizing the infrastructure sector, and helping Nepal realize its vision of becoming an energy powerhouse. This blended financing model, while complex, offers a resilient and scalable pathway for achieving the nation's ambitious infrastructure goals.

**References**

AIIB. (2023). Project summary information: Upper Trishuli-1 hydropower project. Asian Infrastructure Investment Bank. https://www.aiib.org/en/projects/details/ 2023/_download/ Nepal/AIIB-PSI-P000085-Nepal-Upper-Trishuli-1-Hydropower-Project.pdf

CompanyNP. (n.d.). Hydropower project development in Nepal. Retrieved June 16, 2025, from https://companynp.com/hydropower -project-development-in-nepDella Croce, R., & Gatti, S. (2014). Financing infrastructure: International trends. OECD Publishing.

Engel, E., Fischer, R., & Galetovic, A. (2014). The economics of public-private partnerships: A basic guide. Cambridge University Press.

Hodge, G. A., & Greve, C. (2007). Public–private partnerships: An international performance review. Public Administration Review, 67(3), 545-558. https://doi.org/10.1111/j.1540-6210.2007.00736.x

Investopedia. (2023). Private equity. https://www.investopedia.com/terms/p/ privateequity.asp

IFC. (2019, November 1). IFC, partners provide more than $450 million to support major hydro-electric plant in Nepal. International Finance Corporation. https://www.ifc.org/en/ pressroom/2019/ifc-partners-provide-more-than-450-million-to-support-major-hydro-electric-plant-in-nepal

LAHURNIP. (2017). A study on the impact of the Upper Trishuli-1, 216 MW hydropower project on indigenous Tamang community of Rasuwa district. Lawyers' Association for Human Rights of Nepalese Indigenous Peoples. https://www.lahurnip.org/uploads/ publication/file/ut-1-report-final-eng.pdf

Ministry of Energy, Water Resources and Irrigation. (2001). Hydropower development policy, 2058 (2001). https://moewri.gov.np/storage/listies/ May2020/hydropower-development-policy- 2058-2001.pdf

Organisation for Economic Co-operation and Development. (2008). Public-private partnerships: In pursuit of risk sharing and value for money. OECD Publishing.

Paudel, N. R., & Adhikari, B. (2022). Critical success factors of public private partnership in hydropower sector of Nepal. PYC Nepal Journal of Management, 10(1), 5-16. https://www.nepjol.info/index.php/ pycnjm/article/download/35959/ 28110

Shaoul, J. (2005). A critical financial analysis of the private finance initiative: Selecting a financing method or allocating subsidies? Public Administration, 83(2), 441-471. https://doi.org/10.1111/j.0033-3298.2005.00457.x

Urja Khabar. (2023, April 25). Dolma Impact Fund injecting Rs 450 million equity investment in 22 MW Seti River hydro project. https://www.urjakhabar.com/en/news/2504218780

World Bank. (n.d.). What are public private partnerships? https://pka.worldbank.org/en/ppp-overview

# Maintenance is what brings Resilience and Sustainability to the Development

**MR. GANESH BAHADUR KC**
Executive Director, Roads Board Nepal

**Mr. Ganesh Bahadur KC has been serving as the Executive Director of Roads Board Nepal (RBN) since 21 September 2022. Since assuming office, he has consistently worked toward strengthening the institution by enhancing road maintenance strategies, advocating for greater institutional autonomy, and promoting sustainable approaches to road infrastructure development. In a recent conversation, Mr. KC highlighted RBN's growing focus on adopting the Public-Private Partnership (PPP) model to improve service delivery and funding efficiency. Sharing his insights, he emphasized the critical role of innovation and collaboration in transforming Nepal's road sector. His insights follows:**

**Could you start by telling us about the main role of Roads Board Nepal in supporting road development in Nepal?**

Let's start with the preamble of Roads Board Act 2058 (2002) which clearly stipulates that, "whereas it is expedient to make necessary provisions on repair and maintenance of roads, minimising the expenditures to be incurred in repairing and maintaining the roads and making transparent and effective the repairing and maintaining works of the roads". As an autonomous institution, Roads Board Nepal (RBN) plays a crucial role in upholding the quality and usability of Nepal's road infrastructure through systematic maintenance. To lay out the significance of maintenance I would like to emphases on the statement - if building new roads is development we are the entity that brings resilience and sustainability to that development. It is the regular maintenance that preserves the road asset, ensures user safety and preventing the need for costly reconstruction.

RBN is basically manages road maintenance fund and send it to the concerned entities, such as Road Divisions at the federal level and 753 local levels. A key distinction from other infrastructure bodies is that RBN does not implement projects directly. Rather, we ensure that implementing agencies have the resources and monitoring frameworks necessary for road maintenance. Projects like the upgrading of national highways or new construction fall outside our jurisdiction and are often carried out by agencies like the Department of Roads, or through support from development partners. RBN's focus is on preserving the asset value of roads through timely and systematic maintenance. To put out structurally, the role of RBN as follows:

- To generate adequate and stable fund and channel it to Road Agencies
- To carryout maintenance of road assets through Road Agencies
- To ensure safe, reliable, comfortable and economic road service to its users
- To improve date management system of RAS and RBN
- To develop awareness among stakeholders related to road maintenance
- To reduce maintenance expenditure and make the maintenance activities transparent and effective
- Suggest to the government for determination of levy and tariff

**What are some of the key operational challenges faced by Roads Board Nepal in ensuring timely and effective road maintenance across the country?**

While RBN plays a crucial role in channelling funds and monitoring maintenance, we do face several implementation challenges. One of the recurring issues is the lack of motivation and accountability among various implementing entities and contractors. This often leads to delays in executing maintenance works, even when funds are available.

Another significant hurdle is the lengthy public procurement process. By the time a contractor is selected and mobilized to the site, cost estimates often become outdated due to inflation or market fluctuations. This results in cost overruns. Unless the Public Procurement Act is amended to allow for provisions like verification of costs at the time of mobilization, it will remain difficult for contractors to adhere to their original bid prices.

Additionally, there is often confusion among the public regarding RBN's role. Upgrading or constructing roads is not within our mandate, yet when such projects stall or face challenges, the blame sometimes inadvertently falls on us. For example, the ongoing upgradation of lifeline national highways is being carried out with donor support and through other agencies, not under RBN.

**How does RBN's funding model—using fuel levies and vehicle fees—help maintain Nepal's roads in both urban and rural areas?**

RBN's funding model is built on the "user-pays" principle, which allows for a sustainable and predictable revenue stream dedicated to road maintenance. As per the Roads Board Acts 2002, the source of revenue is fuel levy , vehicle registration, road permit charges, road users fee. The government has been collecting road maintenance fees- Rs. 4 in petrol and Rs. 2 in diesel are levied; other fees levied are road permit charges, and several other headings to collect fees/charges. These revenues are deposited into the government treasury. Only road users fee is deposited in RBN's account.

To date, more than Rs 100 billion is collected in the government treasury from only fuel levy but the budget allocated for road maintenance is very low. This funding model ensures maintenance needs are met before roads deteriorate severely—often including targeted interventions such as pothole patching before major travel seasons like Dashain. The model also allows for performance-based allocation, linking funds to maintenance quality and reporting compliance, which promotes accountability across regions.

However, ensuring equitable distribution and timely utilization remains a challenge, especially in rural areas where technical capacity and contractor availability may lag. Roads Board Nepal is working to strengthen data-driven planning and monitoring tools (such as RMMS), and this aligns with broader efforts across Nepal, including RAMS pilots in municipalities.

**How does RBN plan and prioritize which roads—whether highways or local roads—get funding for maintenance?**

RBN follows a systematic and evidence-based approach to plan and prioritize road maintenance funding. We organise an annual workshop, titled 'Annual Road Maintenance Plan' (ARMP), in which each Road Divisions present status of the road under their jurisdiction and present maintenance need using standardized assessment tools

The types of maintenance carried out are—routine, recurrent, periodic maintenance, specific and emergency. For federal highways and strategic roads, funding decisions are coordinated through the respective Road Divisions. For local roads, municipalities and rural municipalities are responsible and coordinate with RBN. We work through Road Divisions at the federal level and by the municipalities/rural municipalities at the local level.

For the upcoming Fiscal year, our technical assessment indicates that Rs. 9.98 billion is required for the maintenance of federal roads alone. Unfortunately, the government has allocated only Rs. 4.29 billion, which poses serious limitations on addressing even the most critical needs. The significant gap between the demand for and supply of road maintenance funding directly affects road conditions.

**Can you share how RBN works with agencies like the Department of Roads and local governments to make sure maintenance funds are used effectively?**

RBN operates through a collaborative model with both federal and local implementing agencies. At the federal level, we coordinate closely with the Department of Roads (DoR) and its Road Divisions. Each year, during the Annual Road Maintenance Planning (ARMP) process, Road Divisions submit data-driven maintenance plans, which we review for technical soundness and budget justification. Funds are released in tranches, and their use is monitored through periodic reporting and field verification.

At the local level, we work with municipalities and rural municipalities to strengthen their planning capacity. Maintenance funds are allocated based on standardized performance indicators. Disbursements are made only after proper documentation, including physical progress reports, are submitted. RBN wants to ensure that it fulfills its role of sustainable road maintenance. Discussions are ongoing to institutionalize a “one-door policy” for road maintenance funds, which would reduce fragmentation and ensure more accountable use of public resources.

**Public-Private Partnerships are an important way to bring private sector expertise and investment into road infrastructure. How does RBN’s approach to funding and performance-based contracts align with PPP principles?**

An underdeveloped road network can contribute to sub-optimal economic performance and quality of life. While there has been significant investment in road networks globally, it is expected that very significant investments will continue to be required in the next 20-25 years to meet increasing demand arising from population growth and economic development. Recent studies indicate that both the investment requirement and the potential funding gap in road infrastructure will be significantly higher than other transportation sectors. In most jurisdictions this will mean building brand new roads, extending existing roads or both.

Currently, RBN allocates road maintenance funds to local road agencies — including Metro, Submetro, Municipalities and Rural Municipalities — through a co-funding approach. Although RBN’s present model does not yet include full-scale Public-Private Partnerships (PPPs) with private financing, it lays a solid foundation for future PPP initiatives by incorporating key principles such as performance-based accountability, collaboration with the private sector, and a focus on long-term financial sustainability.

**Do you see opportunities for more private sector involvement in maintenance or upgrades of Nepal’s roads? If so, in what ways might RBN support this?**

Although the private sector is not currently involved in road maintenance activities, the Standard Operating Procedure for toll collection includes provisions for private sector participation. This presents an opportunity to bundle toll collection and toll road maintenance into a single package, enabling private sector involvement while enhancing accountability of government entities.

**Technology is transforming infrastructure development worldwide. How is RBN incorporating technology to improve road maintenance and management?**

Definitely, technology has great role in transforming infrastructure development. In this regard, RBN is more familiar with the assessment tool to have evidence-based requirement of road maintenance fund using Annual Road Maintenance Program(ARMP) software for strategic road. Currently digitization of a pilot project for collection of toll is going to launched at Bhairawah-Bhumai road. There is future planning of Electronic Toll Plaza Using RFID (Radio Frequency Identification Device) in all the toll road sections which is published in Nepal Gazette.

**Road maintenance isn't just about engineering—it also affects communities and jobs. How does RBN include local communities in road maintenance, especially in rural areas?**

RBN, through the Department of Roads, funds over 2,700 lengthworkers and supervisors who are directly engaged in routine road maintenance. These workers are selected by the Road Division Offices based on the key criterion that they must reside near the road sections they maintain. This community-based approach not only ensures timely and effective maintenance but also contributed to poverty reduction when first introduced by providing employment opportunities to local residents.

**Looking to the future, what legal and institutional reforms are needed to strengthen Roads Board Nepal's role in sustainable road maintenance?**

To achieve the goals of sustainable and transparent road maintenance, key legal and institutional reforms are essential. While the Roads Board Act, 2058 (2002), empowers Roads Board Nepal (RBN) to finance maintenance activities based on agreements with the Government of Nepal and executing agencies, this provision requires stronger institutionalization to be fully effective in practice.

One of the primary areas for reform is the amendment of the Act, accompanying rules, and directives to enhance RBN's operational autonomy and clearly define fund flow mechanisms. In parallel, the enforcement and harmonization of a one-door policy for maintenance financing is urgently needed to avoid duplication, streamline coordination among agencies, and ensure efficient use of resources.

The recent implementation of the Road Levy Collection (Operation) Regulation, 2082, at toll roads remains the cornerstone of Nepal's road maintenance financing. It must be administered transparently and efficiently to uphold public trust and funding reliability.

Additionally, RBN is actively exploring technical and financial partnerships with development agencies to modernize maintenance approaches. These combined reforms on legal, procedural, and strategic are vital for enhancing the long-term sustainability, accountability, and impact of Nepal's road maintenance framework.

SNIPPET

# PPP PROJECT DEVELOPMENT PROCESS

## 1ST PHASE

**Project Identification and Selection**

- Identify projects from GoN priorities, private proposals, or public calls.
- Conduct Pre-feasibilty studies.
- Screen projects via strategic fit assessment.
- Designating responsible authority for PPP Project Managament and Monitoring.

## 2ND PHASE

**Detialed Feasibility Study**

- Feasibility Study Proposal Submission
- MoU signing for Study
- Feasiblity Study Report Submission
- Project Bankability Approval
- Analysis in 3 aspects- Technical, Financial, Environmental.
- 0.5% of project cost for Feasibility study.

## 3RD PHASE

**Project Procurement**

- Call for EOI
- Grounds of Evaluation: Technical (30-50%), Financial (20-40%) and Experience (10-30%).
- Call for Proposals (Technical and Financial)
- MoU signing for study
- Detailed Feasibility study by Proponent
- Project Approval and PDA.

## 4TH PHASE

**Contract Management & Monitoring**

- The proponent submits a bank guarantee (0.1% of project cost)
- Proponent provides action plan for project implementation.
- Monitoring/ milestone reports for:
  - Development stage
  - Construction stage
  - Operations and maintenance stage
  - Handover stage

# "Infrastructure financing thrives not just on capital, but on credibility, coordination, & commitment"

**MR. SUDESH KHALING**
CEO, Everest Bank Limited (EBL)

**Mr. Sudesh Khaling is a distinguished banker and CEO of Everest Bank Ltd., the first Nepali to lead the 25-year joint venture with Punjab National Bank. With 35+ years of experience—including as CEO of Laxmi Bank—he has deep expertise in corporate, SME, and treasury banking. He led Everest Bank's role in major hydropower consortium financing, including Arun-3 (900 MW), Upper Tamor (285 MW), and Chino Khola (7.8 MW). As an Executive Committee member of the Nepal Bankers' Association, he also advocates banking sector reform. Under his leadership, Everest Bank has enhanced digital services, expanded its lending portfolio, and pioneered cross-border QR payments, reflecting his commitment to innovation and infrastructure-led development. During the conversation with PPP Paradigms, Mr. Khaling shared his thoughts comprehensively from the lenders' perspective in PPP. The excerpts of the interview is given below:**

**How do you see the role of Nepal's infrastructure development in Nepalese Economy, and what opportunities do you believe they present for the banking sector?**

Infrastructure play critical role in economic development as it provides ample opportunities for the business activities and mobility. It reduces the cost of business and enhances efficiency in the economy. Currently, there is yawning gap of infrastructure and the studies have revealed the requirement of a huge investment at least 20-25% of the GDP for next fiscal years. If the government comes up with the roadmap to realise infrastructure development vision as engine of growth, this would foster opportunity for private investment including banking sector in infrastructure.

**Do you think lending in hydropower is mostly driven by the assurance of market of guaranteed return in investments?**

Yes, to a large extent, lending in hydropower is driven by the assurance of a guaranteed market and relatively predictable return on investment. However, returns can be assured in sectors beyond hydropower as well. For instance, toll-based revenue models can make road and tunnel projects financially feasible. Take air travel, for example: the exponential rise in air passengers can largely be attributed to poor road conditions. If road infrastructure were better and more reliable, people would be more inclined to travel by road. Projects like the Fast Track are expected to attract high traffic volumes due to smoother travel and reduced journey times. Against this backdrop, there are numerous transport and infrastructure projects with strong revenue potential that can be effectively developed through the Public-Private Partnership (PPP) model.

**Considering the success in hydropower sector through Public-Private Partnerships (PPP) in Nepal how do you see the viability of PPP for development of other Infrastructure and service sector? What will be the prerequisites for the same?**

The first tunnel road in the country, Nagdhunga tunnel road has demonstrated the prospects of potentiality of financing such road and tunnel projects considering Nepal's rugged mountainous terrain. Tunnels are appropriate in the country, which significantly reduces the cost and time of travel. A few years back, a fast-track road project from Kathmandu to Hetauda, initiated by the private sector has drawn significant attention. Considering the viability of the project, banks and financial institutions (BFIs) were positive towards financing the project. However, it couldn't gain momentum due to various reasons. The public interest and enthusiasm are high for the development. The way to raise the public funds is not just issuance of IPOs, which is largely practiced in the hydropower projects in infrastructure sector. However other financing instruments like bonds etc., could as well be used for funding the infrastructure projects. The successful implementation of the hydropower projects is testament of potential of leveraging resources from the BFIs and the capital market. On the other hand, projects must be time and cost efficient. Cost of 456 MW Upper Tamakoshi Project, which is developed from mobilising domestic resources shot up more than two-folds than the initial estimation, and such pitfalls could hinder the investments. Serious attention must be given to project design, implementation capacity, and risk mitigation planning, with a strong focus on ensuring value for money (VfM). There is immense opportunity of investment in infrastructure sector due to gap of basic infrastructure, i.e., road has tremendous potential, transmission is equally viable. The presence of these basic infrastructures would further boost up opportunities of investments in other sectors as well.

**Project Financing and its structuring is critical aspects of project viability and its successful execution. From Bank's perspective, what are the key challenges in financing PPP projects in Nepal, and how can banks overcome them?**

Ultimately, investment looks into its return. Though risk sharing is considered, but, providing adequate return to investors enables further investments in the projects. Otherwise, it would be discouraging. Currently, in the capital market, people are looking at the short-term capital gain. As per unit share in IPO is relatively cheaper, a mass public has been taking risks of the small amount of money such as Rs. 1000 or Rs. 2000, which shouldn't be thought in that way. In recent years, there is a serious distortion from the Independent Power Producers in terms of cost estimation, the inflated cost of the project could dampen the investment in this sector and the BFIs have to be cautious about whether the costs are escalated or not. Dilution of shares from the primary promoters and fleeing away triggers the accountability concerns. I don't mean the primary share should have infinite lock-in period, but for the certain years of operation, that must be locked-in. As a banker, I don't have extreme opinion, divestment opportunity after certain year will empower them for further investment, which should be addressed through appropriate and transparent government policy.

**Consortium financing has become a key tool for mobilizing funds in large infrastructure projects. Could you explain how Bank approaches consortium financing within the PPP framework?**

While implementing infrastructure projects in PPP modality, the government as partner should provide every facilitation required. This will help build confidence of the private sector investors and lenders and cost-effective implementation of the project. Simply, while making consortium financing within a PPP framework, the approach of the bank is to see the credibility and strength of the investors. For example, in the case of Arun-3, the investor SJVN India had already executed multiple large-scale projects, and hence there was strong confidence in SJVN as a financially and technically robust company. We get motivated to finance such projects while also looking at the government as strong partner. Further, we are concerned about timely and efficient completion of project. Ultimately, that is the decisive factor for Return on Investment (RoI). Normally, financing from the bank is sought after the detailed feasibility study of the project and as lender we also check the credibility of the study. Currently, we rely on expertise of contracted external technical advisor for the assessment of feasibility study and credibility of the report. Gradually, mostly through experience, internal expertise shall be developed in this area, particularly in terms of financing hydropower projects. However, with increasing involvement in hydropower, banks and financial institutions (BFIs) are also becoming more cautious about potential concentration risks associated with overexposure to a single sector. Consortium financing mechanism gives some comfort in risk sharing and protection for over-risk exposure. Moreover, banks are actively exploring opportunities in other sectors as well—where project fundamentals are sound—in order to diversify their lending portfolios and manage risk more effectively.

**What criteria or risk assessments does Everest Bank use when deciding to participate in a consortium to finance major PPP projects?**

When Everest Bank considers participating in a consortium to finance major PPP projects, several risk assessment criteria come into play. First, talking about risk appetite, BFIs may not lend a sizable amount in the new infrastructure projects except hydropower and tourism projects. Due to limited experience and higher uncertainty in new infrastructure sectors, we are very cautious and look to develop robust risk assessment tools to enhance our risk appetite when diversifying our investment portfolio.

Another key factor in risk assessment is the project's financial structure, particularly the revenue model, government support (such as guarantees or Viability Gap Funding), and the strength of the private sector proponent. The credibility of the private sector proponent and its performance in past infrastructure projects is also an important concern and area of assessment. We have to evaluate project feasibility, risk-sharing mechanisms, and regulatory clarity before committing.

Further, the internal critical assessment area is liquidity concern. Infrastructure projects typically have long gestation periods (10+ years), whereas banks face difficulty mobilizing long-term deposits. Fixed deposits in Nepal usually span up to 7 years, and institutional depositors, such as the Employees Provident Fund, Citizen Investment Trust and Social Security Fund, tend to place deposits for no more than a year. This mismatch poses risks in long-term lending. To mitigate these risks, interest rate hedging mechanisms are necessary. There is growing demand from developers for fixed-rate financing, but BFIs are often compelled to offer floating interest rates due to the cost implications of locking in high long-term deposit rates. Unless foreign currency or long-term funds are backed by hedging instruments, they become expensive, affecting project Return on Investment.

**Everest Bank has played a leading role in participating financing major hydropower projects like Upper Tamor and Arun-3. What lessons has the bank learnt from its experience in these large-scale syndications?**

Our experience leading large-scale syndications such as Arun-3 and Upper Tamor has been instrumental in shaping how we approach infrastructure financing. As the lead bank in several consortiums, we financed Rs. 500 crores alongside a co-lead institution, and this leadership helped instill confidence among other BFIs. For instance, shortly thereafter, Laxmi Bank financed Rs. 900 crores in another major hydropower project involving Triveni Group and Vishal Group.

One key lesson has been the importance of scale and early commitment. When we pledged Rs. 1,000 crores to Arun-3 nearly a decade ago, most banks were only lending in the Rs. 100–200 crore range. This signaled a bold shift in BFI capacity and confidence.

Another critical takeaway is the value of sound sponsor credibility and proper equity mobilization. In Arun-3, the developer mobilized equity upfront, significantly reducing interest burden—something we now encourage across all infrastructure deals. As part of our internal risk controls, we mandate that a certain percentage of equity be injected before we begin loan disbursement. This ensures borrower commitment and financial discipline.

Lastly, we've learned the importance of collaboration and coordination—both among consortium partners and across borders. In the case of Arun-3, while we led at the local level, SBI Bank India served as the overall lead, and our role involved close monitoring and regular reporting. This cross-border coordination model has taught us how to manage complex financing arrangements with multiple stakeholders effectively.

**Regarding the Arun-3 project, what were the main challenges faced during the financing process, and how were they addressed?**

One of the main challenges was the sheer scale of financing required for Arun-3, a 900 MW project with massive capital needs. While we arranged Rs. 1,500 crores locally, including support from Nabil Bank, this was a substantial step forward in Nepal's infrastructure financing landscape.

Another significant challenge was on-ground implementation. Though the project began strongly, progress was later hindered by local-level disruptions—especially related to access road blockages and delays in erecting transmission towers. These local hassles ultimately led the developer to request an extension of the Commercial Operation Date (CoD).

Despite these challenges, the project also offered valuable lessons. Notably, the early mobilization of equity by the developer not only demonstrated strong financial health but also led to major savings on interest costs. This approach is now something we consider a best practice. For future projects, it reinforces our belief that borrower financial soundness and early-stage capital commitment are non-negotiable pillars for successful syndication.

**How do you see the role of Environmental and Social safeguards evolving in the future of consortium financing in Nepal, especially for large-scale infrastructure and energy projects?**

Environmental and Social (E&S) safeguards are currently introduced as voluntary compliance measures by Nepal Rastra Bank. However, as consortium financing becomes more prominent—particularly in large-scale infrastructure and energy projects—E&S risk assessment will evolve from a box-ticking formality to a critical component of project due diligence.

BFIs will need to gradually build their internal capacity and understanding of E&S risks, including the impacts of climate change and global warming. In our current practice, especially in hydropower lending, we focus on key technical parameters such as access roads, the nature of the river (whether snow-fed or seasonal), legal agreements, and the credibility of primary sponsors. Beyond that, we often engage technical consultants for more in-depth assessment.

So far, E&S compliance has largely been procedural. But as disaster risks increase and insurance becomes more expensive and harder to place—especially with rising reinsurance premiums—it is becoming clear that risk mitigation must begin at the project design and financing stage, not after. This makes consortium financing more complex but also more coordinated and holistic in its approach.

Institutions like the Nepal Bankers' Association (NBA) have already taken a proactive step by establishing a dedicated desk to look at E&S assessments from the lender's perspective. This kind of institutional coordination is key for the future, especially as regulatory frameworks strengthen and NRB moves toward stricter E&S enforcement.

Going forward, successful consortium financing will depend not only on financial structuring but also on how well we manage non-financial risks—including social clearances, right-of-way issues, and environmental safeguards. Additionally, as we look beyond hydropower, toward other renewable energy sources, these E&S considerations will play a growing role in shaping both bankability and investor confidence.

**What are the policy changes required for introducing innovative financing mechanism to motivate and accelerate private sector investment including PPP in Nepal?**

To introduce innovative financing mechanisms and accelerate private sector investment, including through Public-Private Partnerships (PPP), Nepal must adopt several policy reforms across key areas. Firstly, the government should **support diversification** of investment sectors beyond hydropower, particularly in tourism infrastructure. While current policies allow PPPs in the tourism sector, hotels and accommodations remain excluded, limiting private sector engagement. Banks and institutions like NIFRA have already financed tourism-related infrastructure such as the skywalk in Bhedetar and adventure tourism facilities in Kushma—both of which are gaining popularity. There is significant potential for PPP-based development of cable cars, podways, and monorails to promote tourism and improve mobility in areas lacking adequate road access. However, these projects require government facilitation—particularly in expediting right-of-way approvals and simplifying the approval processes. Policy clarity in these areas would unlock both domestic and foreign investment in non-traditional infrastructure.

Secondly, **Foreign Direct Investment (FDI) promotion** requires urgent regulatory reform. While Nepal has improved its sovereign credit rating—mainly due to hydropower and tourism potential—FDI inflow remains low due to procedural complexities and bureaucratic delays. A prominent example is the repatriation of dividends, where even after timely declaration, foreign promoters often face months-long delays due to overlapping regulatory verifications, such as tax clearance confirmations. These delays erode investor confidence and discourage reinvestment. Policy changes should aim to streamline FDI approval and repatriation processes, ideally through a one-window digital platform with time-bound decision-making. Moreover, foreign investors should be encouraged to access credit from the domestic market through clear and enabling regulations to promote blended financing.

Thirdly, rather than introducing a new PPP policy framework, the focus should now be on strengthening the **implementation of existing policies and enhancing institutional capacity**. Nepal's current PPP Act and related guidelines provide a sufficient foundation, but execution challenges persist—particularly in project preparation, risk allocation, and inter-agency coordination. PPPs offer a cost-effective, performance-driven alternative to purely public delivery models. The government should look to operationalize international best practices, such as the Hybrid Annuity Model used in India's road sector, which balances risks between public and private partners. Additionally, stronger policy support for practical tools like viability gap funding (VGF), interest rate hedging, and sovereign guarantees would enhance the bankability of PPP projects. Importantly, high-return sectors such as urban transport, ICT, logistics, and renewable energy should be actively opened up for private participation under a transparent and incentive-based PPP regime—supported not just by policy, but by institutional readiness and project-level facilitation.

## UNLOCKING NEPAL'S POTENTIAL

# PPPs for Infrastructure and Services

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Nepal is richly blessed with abundant natural resources. From towering mountain ranges and lush green forests to perennial rivers and a warm, culturally vibrant society, Nepal truly has it all. It is the only country on planet where the landform changes so rapidly that starting from lowest point of 60 Meter above Mean Sea Level (MSL) in South one can reach highest point on earth in North at 8,850 Meters above MSL i.e., The Mt Everest, all within a distance of just 160 kilometres. Due to such steep gradients, there is humongous hydropower potential which remains grossly underexploited. Nepal is also recipient of the demographic dividend in the sense that there is large youthful population who appear capable of supporting large or small infrastructure projects.

Post COVID Nepal was the first country to adopt and adhere to GRID approach i.e., Green, Resilient and Inclusive Development approach. The country has a roadmap to graduate to middle income country by 2030 and move to high income level by 2043 and achieve net Zero in another two years i.e., by 2045. These are ambitious goals and need a focused approach enabled by structured implementation of development activities. Infrastructure remains the key sector so essential to achieve the stated milestones. It is generally agreed that Nepal would need to invest a budget equivalent to approximately 10% of its GDP in infrastructure to achieve its middle income and SDG goals by 2030. But the actual investment is around 4% which is grossly inadequate (Bana, 2024).

A quick review of the major infrastructure of Nepal indicates that the road network comprises approximately 11,890 km of paved roads and 16,100 km of unpaved roads. The rural roads mostly become impassable during the monsoon season. The railway infrastructure is minimal, with only 59 km of operational tracks. A significant development is the Jaynagar– Bardibas railway line, a cross-border project with India, which became operational in phases between 2022 and 2023, enhancing regional connectivity. On the air transportation side Nepal has 47 airports, 11 of which have paved runways, facilitating domestic air travel, especially in remote areas (Government of Nepal, 2020).

As of 2023, mobile telephony has achieved widespread penetration with a subscriber base of 139.2% of the total population and growing. The internet reach is almost 15% on fixed line while it is over 52% for mobile data (Kemp, 2023). But there are disparities in quality of calls, speed of data and downtime in urban and rural areas. Kathmandu faces substantial congestion and air pollution. The better news is that almost 70% of four wheelers imported last year in Nepal were Electric Vehicles (EV). The government aims to have 90% private and 60% public vehicles converted to EV by 2030. The hurdles in conversion remains including limited charging infrastructure and high costs of electric buses. (Pattisson, 2025).

Nepal's energy sector is predominantly based on hydropower, with an estimated economically feasible potential of 42,000 MW. However, only about 3255.806 MW has been harnessed till date. While electrification rates are improving, with urban areas at 97% and rural areas at 72%, the country still imports electricity during peak demand periods. Challenges include high tariffs, system losses, and delays in project implementation (nepalekhabar.com, 2024). The energy sector in Nepal holds the promise of emerging as the primary foreign exchange earner. The energy can be exported as electricity or as green hydrogen (Ideapreneur Nepal, 2024).

Healthcare development is slow and a lot more needs to be done specifically at primary and secondary level. The health care system faces challenges such as political instability, natural disasters, and limited financial resources, leading to disparities in access and quality of care, particularly in rural areas (Paudel, 2023). The education system in Nepal comprises at least one year of pre-primary education, eight years of basic education (grades 1–8), and four years of secondary education (grades 9–12). The education and skill development remain a challenge as access disparities persist in rural areas and remote regions (Giri, 2024).

In last five years Nepal has hosted at least three investment summits in 2019, 2022 and 2024. In addition to Hydropower these focused on multi-modal logistics park, solar power, transportation, agriculture and telecommunications (Shretha & Humagain, 2019). The role and importance of provincial and local governments was also highlighted in summit of 2022. The MoUs signed in 2024 included setting up of private data centres and data services in Nepal (Press Trust of India, 2024). Further, there has been a definite progress on policy side by way of bringing in 'The Public-Private Partnership and Investment Act', also known as the PPPI Act of 2019. It aims to create a more unified environment for Public-Private Partnerships (PPPs). Additionally, Nepal has introduced several policy reforms including amendments to the Foreign Investment and Technology Transfer Act (FITTA), Companies Act, Special Economic Zone Act, Industrial Enterprises Act and Labour Act. These are by no means a small legislative endeavour (the HRM, 2023).

Though the intent of big-ticket investment in PPP mode or otherwise has been repeatedly expressed by prospective investors in the investment summits or in normal course but the realisation of projects has been limited with only a handful moving beyond the preliminary stages. In addition to political uncertainty there are reasons for such poor state of affairs. These are non preparation of detailed project reports (DPRs), incomplete land acquisition, and pending environmental and forest clearances, which have figured prominently when analysing the project delays (Shrestha, 2023). DPR preparation could cost as much as 1 -3 % of the project cost depending on the type of project. Office of the Investment Board Nepal (OIBN) have access to funds for preparing Detailed Project Reports (DPRs) for projects developed under the Public-Private Partnership (PPP) model. Established under Section 57 of the Public-Private Partnership and Investment Act, 2019, the IBN Fund is designed to finance activities such as consultancy services, pre-feasibility and feasibility studies, and the preparation of project idea notes (PINs) for PPP projects (OIBN, 2023).

With frameworks and preparatory funding ready, political uncertainty appears to be the only major factor delaying PPP project initiation. Political uncertainty is depressing factor for the investors looking for long term investment in infrastructure projects in PPP mode. At the same time, all political parties and stakeholders seem to share a common commitment to infrastructure development in PPP mode, provided that transparency is maintained in project procurement and construction and credit of the same in not usurped by the ruling party alone. Thus, there is an urgent need to accord a special status to the OIBN which is least affected by frequent changes of Government in Nepal. OIBN will have to ensure full transparency in their PPP procurement process to ensure credibility, continuity and completion of the projects awarded by them.

One of the successful PPP program is being run in Nepal's neighbourhood in India. Highway projects were the first to be constructed using PPP format in India in late nineties and early 2000s'. Successive governments in India have implemented PPP to develop infrastructure and reduce fiscal burden while doing so. Initially 'Build, Operate, Transfer' (BOT) model was used in first decade of current century which evolved into more pragmatic 'Hybrid Annuity Model'(HAM) which now has more manageable risk profile and has since proved successful in last decade. The HAM combines features of BOT and Engineering, Procurement, and Construction (EPC) models, where the government and private players share the project cost and risks. These models have been instrumental in attracting private investments and expediting project completion (Nayi & Srivastava, 2024). Despite the success there are challenges, particularly related to land acquisition, regulatory hurdles and financial constraints (PPP_India, 2025).

Nepal has equally robust policy structure and it is worthwhile to learn from the speed at which highways and other infrastructure is being built in India through PPP route. There appears no dearth of resources if the policy implementation is transparent and project implementation is prudent. Nepal may not follow Indian highway construction model as such but may include suitable measures to bring in cost optimisation, construction efficiency, pragmatic risk allocation, timely and cost-effective dispute resolution. Financing the infrastructure projects in Nepal could be expedited if developers from India are encouraged to participate in such program as unlike other foreign players there is insignificant foreign currency risk for Indian infrastructure builders in Nepal.

Initially the PPPs may be deployed in ready-to-go projects from the existing project pipeline. These funding needs may be met by allocated capital expenditure budget and by re-assigning priorities and disinvestment in state owned enterprises (SOEs). To mobilise funds for further project construction, which includes making provisions for viability gap funding, the government may need to galvanise the functioning of Securities Exchange Board of Nepal (SEBON) Nepal Stock Exchange (NEPSE) and may consider raising funds from neighbouring giants i.e. India or China. It may be easy to undertake that exercise in India as there is a standing arrangement between Indian and Nepali central banks. Further, there is need to broaden the tax base and bring in efficiency in collection of taxes and for dispute resolution. Nepal has already joined the UPI payment system of India and may consider opting for deployment of complete stack of digital public infrastructure offered by India to many friendly countries. That has potential to ramp up tax collections and enhance user satisfaction (Bana, 2024).

The development and modernisation of NEPSE can definitely enable the government and private sector entities to raise long term financing by issuing shares, bonds and debentures. It reduces reliance on foreign funding, multilateral banks and loans from other banks. It thus diversifies the base for financing the infrastructure projects. NEPSE already has several government bonds and corporate debentures listed there and further development can be a big help for infrastructure financing (UNESCAP, 2019). At the same time, NEPSE is facing numerous challenges, including limited market depth, dominance of certain sectors, and the need for improved regulatory frameworks. Addressing these issues through policy reforms, capacity building, and technological advancements is crucial to fully leverage NEPSE's potential in infrastructure financing.

Once there is tax base expansion and capital market reforms in Nepal, it may add to government coffers leaving more money with government to spend on health and education. The optimization of SOEs to continue in order to make those efficient and reduce losses. With enhanced PPP awareness at all levels, PPPs may emerge as a preferred route for infrastructure development. India has humungous capacity when it comes to PPP. There are thousands of projects in progress in PPP format. It may be in the interest of Nepal to leverage such capacity to her advantage as most of the western templates may not deliver as satisfactory results. Nepal should evolve as not only a preferred tourist destination but a credible investment hub and manufacturer of variety of products. Having two enormous markets on either side, Nepal has all the reasons to benefit.

In addition to conventional infrastructure projects under PPP format there is need to take up projects for optimising logistics linkages at remote, rural, and congested urban areas. use of load carrier drones in PPP mode can be very effective. PPPs in religious tourism may be considered for developing a religious tourism circuit in coordination with neighbouring India where districts adjacent to Nepal are witnessing unprecedented boom in tourist footfalls due to re-construction of Shri Ram Mandir in Ayodhya. Janakpur in Nepal may need to be developed and marketed to generate revenue. A back of the envelop calculation suggests that even if 10% of pilgrims arriving in Ayodhya decide to visit Janakpur, that number could be as high as 5 Million resulting an approximate NPR 4000 Crore at a most conservative estimate (Jain, 2024).

It is indisputable that Nepal has huge potential for development not only in energy sector but all sectors as applicable for a small country with almost 3 Crore population. She enjoys a strategic location where it can leverage her good relations with the two giant economies of the world. For development of the infrastructure the PPP format could be exploited to offset capital expenditure limitations and exploit the private sector efficiencies. With its young, dynamic population and necessary policies Nepal has all the ingredients for sustainable growth. There appears a growing political consensus as well in favour of transparent and efficient project procurement, financing and implementation. At the same time the challenges such as political uncertainty, bureaucratic delays, and incomplete project preparation need to be overcome. Empowering institutions like the Office of Investment Board Nepal (OIBN) with the necessary autonomy and resources can accelerate project development. With targeted reforms and sustained commitment, PPPs may evolve into a transformative tool to modernize Nepal's infrastructure, deliver better public services, and drive inclusive economic growth. It is all within reach but requires a concerted and coordinated action free from political interference and meticulous execution.

**References**


Bana, N. (2024). *Public Private Partnership Route for Infrastructure and Services Development in Nepal.* Kathmandu: The Himalayan Times.

Giri, A. (2024, July 24). Challenges Facing the Nepali Education System. *myRepublica*. Retrieved April 27, 2025, from https://myrepublica.nagariknetwork.com/news/challenges-facing-the- nepali-education-system

Government of Nepal. (2020). *The Fifteenth Plan (Fiscal Year 2019/20–2023/24).* Kathmandu: Government fo Nepal. Retrieved April 27, 2025, from https://www.npc.gov.np/images/category/15th_plan_English_Version.pdf

Ideapreneur Nepal. (2024, January 2). Nepal's Hydropower Landscape: A Comprehensive Sectoral Analysis. *Ideapreneur Gyan*. Retrieved April 27, 2025, from https://gyan.moneymitra.com/post/hydropower_sector_in_nepal

Jain, A. (2024, March 13). Ayodhya Ram Mandir sees around 1.5 lakh pilgrims daily, says temple trust. *Mint E Paper*, pp. https://www.livemint.com/news/india/ayodhya-ram-mandir-sees-around-1-5-lakh-pilgrims-daily-says- temple-trust-11710302741156.html.

Kemp, S. (2023). *Digital 2023: Nepal.* Kepios. Retrieved from https://datareportal.com/reports/digital-2023-nepal#:~:text=Data%20from%20GSMA%20Intelligence%20shows,total%20population%20in%20January%202023.

Nayi, K. R., & Srivastava, A. K. (2024). Public-Private Partnerships in Indian Highways: Exploring through Multiple Public Administration Theories. *GLSKALP: Journal of Multidisciplinary Studies, 5*(2), 21-42. doi:https://doi.org/10.69974/glskalp.05.02.02

nepalekhabar.com. (2024, August 12). Nepal's electricity production capacity tripled to 3,157 MW in past eight years. (D. J. Rana, Ed.) *Nepal e-Khabar*. Retrieved April 27, 2025, from https://nepalekhabar.com/2024/08/112981

OIBN. (2023, February 16). OIBN Reviews Half-Yearly Progress. *IBN Dispatch*, pp. https://ibn.gov.np/uploads/documents/ibn- dispatch-59pdf-5923-740-1678284179.pdf?utm_source=chatgpt.com.

Pattisson, P. (2025, April 4). Leading the charge: how a drive for electric vehicles is cleaning up Nepal. *The Guardian*, pp. https://www.theguardian.com/global-development/2025/apr/04/nepal-kathmandu-health-air-pollution-who-transport-electric-vehicles-.

Paudel, S. (2023, October 13). *Organogram of Nepalese Health Systems.* (S. Paudel, Ed.) Retrieved from publicheathupdate.com:

publicheathupdate.com/healthsystem
PPP_India. (2025). PPP. https://www.pppinindia.gov.in/.
Press Trust of India. (2024, April 29). *Nepal Investment Summit concludes, funding worth NRs 9 billion approved.* Kathmandu: Business Standard. Retrieved April 27, 2025, from https://www.business-standard.com/world-news/nepal-investment-summit-concludes-funding-worth-nrs-9-billion-approved-124042901233_1.html
Shrestha, P. M. (2023, June 4). Why development projects in Nepal are seldom completed on time. *The Kathmandu Post*. Retrieved April 27, 2025, from https://kathmandupost.com/national/2023/ 06/04/why-development-projects-in-nepal-are-seldom-completed-on-time
Shretha, P. M., & Humagain, M. (2019). Investment Summit ends on a high note with signing of 15 deals. Retrieved April 27, 2025, from https://kathmandupost.com/national/2019/03/31/investment-summit-ends-on-a-high-note-with-signing-of-15-deals
the HRM. (2023). *Nepal Investment Summit 2024: Crafting a vision to convince global investors.* Kathmandu: The HRM Nepal. Retrieved from https://thehrmnepal.com/cover-story/nepal-investment-summit-2024-crafting-a-vision-to-convince-global-investorsnepal-investment-summit-2024
UNESCAP. (2019). *Glimpse of Nepal's Securities Market.* UNESCAP.

## SNIPPET PPP IN TRANSPORT INFRASTRUCTURE

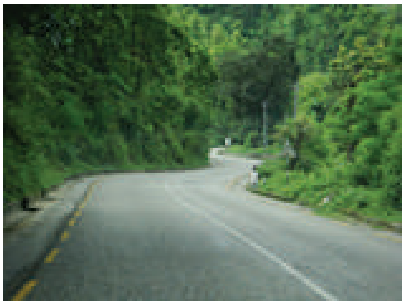
| Category | Details |
|---|---|
| **Key Sub-Sectors** | - Roads and Highways: National and provincial road networks, expressways, and tunnels. |
| | - Aviation: International and domestic airports. |
| | - Railways: Limited rail connectivity, potential for metro/monorail in Kathmandu. |
| | - Ropeways and Cable Cars: Focus on tourism and remote area connectivity. |
| **Current Investments** | - Contribution to GDP: 6.6% (2023). |
| | - Public spending: NPR 161.56 billion allocated for 2023/24. |
| | - Gautam Buddha International Airport: Cost-USD 92 million; Status: Operational. |
| **Key Investment Areas** | - Expressways and Tunnels: Khurkot-Sindhuli Tunnel (7.7 km), Chadragiri-Chitlang Express way, Dharan-Leuti Tunnel. |
| | - Airports: Expansion of Tribhuvan International Airport, Nijgadh Airport. |
| | - Bus Rapid Transit (BRT): Kathmandu Ring Road BRT, Ratnapark-Suryabinayak BRT. |
| **Challenges** | - Infrastructure Gaps: Poor quality roads, narrow curvatures, lack of multimodal integration. |
| | - Environmental Concerns: Impact of road and airport projects on ecosystems. |
| | - Funding Gaps: Limited private sector participation. |
| **Future Growth Areas** | - Cross-Border Trade: Rail and road connectivity with China and India. |
| | - Eco-Friendly Public Transport: Electric buses, BRT systems, podways. |
| | - Tourism-Oriented Transport: Ropeways, cable cars, scenic railways. |
| **Notable Initiatives** | - National Pride Projects: Kathmandu-Terai Expressway (Fast Track). |
| | - Kathmandu Metro Project: 77 km metro system with a USD 5.5 billion budget. |
| | - Podways: Emerging urban transit solutions using suspended transport technology. |

# सडक बोर्ड नेपाल

मिनभवन, काठमाडौं ।

सडकको मर्मत सम्भार गराउने, सडकको मर्मत सम्भार गर्दा लाग्ने खर्चमा न्यूनिकरण गर्ने तथा सडकको मर्मत सम्भार कार्यलाई पारदर्शी एवं प्रभावकारी बनाउने सम्बन्धमा आवश्यक व्यवस्था गर्न वाञ्छनीय भएकोले सडकको नियमित, पटके, आवधिक तथा आकस्मिक मर्मत सम्भार गर्न तथा सडकमा चल्ने सवारी साधनहरुमा दस्तुर लगाई उठाउने व्यवस्था गर्न मिति २०५९/०९/१५ मा प्रतिनिधि सभाबाट **सडक बोड ऐन, २०५८** जारी भई विधिवत रुपमा **सडक बोर्ड नेपाल** को स्थापना भएको हो ।

## (क) सडक बोर्ड नेपालको कार्यक्षेत्रः



- सबै राष्ट्रिय राजमार्ग तथा सहायक राजमार्गहरु,
- कालोपत्रे भएका सबै शहरी तथा ग्रामिण सडकहरु,
- न्यूनतम सवारी चाप र स्तर भएका सबै खण्डास्मिथ ग्रामिण सडकहरु,
- न्यूनतम सवारी चाप र स्तर भएका सबै कच्ची ग्रामिण सडकहरु,

## (ख) सडक मर्मत सम्भार कार्यः

- राजमार्ग र सहायक राजमार्गको मर्मत सम्भार सडक विभाग मार्फत,
- शहरी तथा ग्रामिण सडकको मर्मत सम्भार स्थानीय तह अन्तर्गतका नगरपालिका (महा/उप) र गाउँपालिका कार्यालयहरु मार्फत,

## (ग) सडक उपभोग दस्तुर सङ्कलन कार्यः

- नेपाल राजपत्रमा उल्लेखित सडक खण्डहरुमा तोकिएको सवारी साधनबाट निर्धारित सडक उपभोग दस्तुर सङ्कलन कार्य गर्ने,
- दस्तुर सङ्कलनबाट प्राप्त हुने रकमको कम्तीमा दुई तिहाई रकम सोही सडकको मर्मत सम्भार गरिने,

**मिनभवन, काठमाडौं, नेपाल फोनः ०१-४५९३५१५/..५२९/...५३९**

**इमेलः roadsboardnepal.org@gmail.com वेभसाइटः www.rbn.org.np**

# Strengthening Environments for Public-Private Partnerships through Robust Legal and Regulatory Frameworks

**Ms. Grishma Pradhan is an Attorney-Advisor with the Commercial Law Development Program (CLDP) in the Office of the General Counsel of the U.S. Department of Commerce, where she works on Asia-Pacific programs. Ms. Pradhan provides legal technical assistance to emerging market governments related to public-private partnership (PPP) projects. Ms. Pradhan has collaborated with PPP authorities, ministries of finance, economy, and justice, and bar associations on the development of robust legal and regulatory frameworks for PPP projects in a number of countries in the Asia-Pacific. Ms. Pradhan's work supports governments' goals of attracting foreign investment to develop infrastructure and deliver public services.**

When delivering Public-Private Partnership (PPP) projects, the reputation of the government and PPP project delivery model is at stake. Early projects often serve as a test, setting the tone for how PPPs will be perceived by the public, investors, and government institutions. If initial efforts are well-managed, transparent, and deliver value, they can build trust and establish PPPs as a reliable model for infrastructure delivery. However, if they are mismanaged, the damage to public and investor confidence could be long-lasting. The success of a country's PPP program may rely on the first few projects, meaning governments must approach them with the highest standards of governance, accountability, and performance. The determination will be made early on the value of PPPs.

Proper planning is essential for every PPP; however, project planning begins long before any individual project. Thoughtful policy building, including the establishment of a robust legal and regulatory framework, is the first step. Development of a strong PPP legal framework is a critical prerequisite to attracting investment and ensuring long-term project success. In making investment decisions, the private sector carefully evaluates legal environments, and governments that lack clear and credible PPP frameworks may seem unprepared and risky business partners. A well-structured legal framework signals to investors that a government understands the complexities of PPPs and is committed to managing them responsibly.

Legal frameworks provide the authority and rules under which public agencies can engage in PPPs and define how projects are carried out. They establish how projects are governed and overseen, determine evaluation and selection criteria, detail procurement processes, provide for dispute resolution mechanisms, and define approaches to intergovernmental coordination. A well-developed PPP law should allow for flexibility in methodologies and procedures, facilitating a range of possibilities for project delivery.  A clear and thorough legal framework builds investor confidence, enhances transparency, and ultimately increases the likelihood of project success. If governments want to position themselves as serious partners in PPP infrastructure development, setting a proper legal foundation can signal that they are ready to do business.

Well-crafted regulatory policies and guidelines are also essential tools that translate laws into actionable strategies with detailed implementation methodologies to guide objectives. Policies should be based on legislation but go further to clearly define roles and responsibilities of all public sector actors involved in the PPP process. In PPPs, since multiple entities perform at various levels of government and across sectors, policies must provide clarity on how entities relate and interact with one another. A well-structured PPP policy will ensure consistency in how the legal framework is applied, reducing uncertainty for both public officials and private partners. Additionally, policies should be regularly reviewed and updated to reflect evolving market conditions, lessons learned, and changes in legal or governmental structures. Without sound implementing policies, even the strongest legal frameworks can result in misalignment, delays, or project failures. Governments serious about leveraging PPPs for infrastructure development must invest in creating and maintaining policies that provide clarity, continuity, and confidence.

For PPPs to succeed, public agencies must go beyond establishing policy frameworks and commit to transparent, honest, and well-coordinated implementation. Public agencies should establish a PPP governance structure that is clear and direct. The PPP team at the core of this process must be integrated into a governance framework that operates clearly and efficiently and helps projects remain resilient to political interference and maintain consistency. Intergovernmental cooperation and alignment among public sector agencies are critical. The PPP team should be provided with adequate resources and a clear mandate with consistent project objectives to lead and provide guidance to each stakeholder involved in the PPP process. This requires ongoing capacity development, continuous learning, and knowledge-sharing across public sector agencies. The team must clearly understand roles and responsibilities, and expectations must be set appropriately to facilitate communication, reporting, and data collection. Delegations of authority should be clearly defined, approval processes should be mapped, and transparent reporting protocols should specify the dissemination of information and timelines.

Public agencies must develop a budget plan that is carefully crafted and outlined in the legal framework to fully account for the costs of assessment, and procurement PPP projects, including engaging external advisors. Outside advisors conduct assessments to ensure the project is worthwhile to pursue and that the project is properly implemented in an efficient and timely manner. Financial advisors play a key role in evaluating bankability and assessing the value of a PPP delivery model. Technical advisors contribute essential knowledge on design, procurement, and contract specifications, ensuring that the project is appropriate from a technical perspective. Legal advisors guide the drafting of procurement and contract documentation and help navigate policy issues. These advisors play a vital role in negotiations and can help ensure that the best deal is made. Advisors also conduct value for money assessments, which need to be completed early and repeatedly throughout the PPP process to examine whether the PPP model is the best choice for project delivery. While financial, technical, and legal advisors can be costly initially, external advisors are essential partners for public agencies in the PPP process and must be considered as strategic investments rather than optional expenses. Budgeting for outside expertise at the outset is one of the best decisions a public agency can make to create market confidence and ensure PPP project success.

As governments seek to develop infrastructure in response to growing public needs and infrastructure demands, PPPs offer a valuable mechanism to deliver large-scale infrastructure projects efficiently and effectively. However, public agencies oftentimes treat PPPs as a last resort that will alleviate public expenditure concerns while continuing to deliver on public needs. This mindset can lead to project failures and reduces PPPs to tools used to discharge fiscal burdens rather than strategic instruments for innovation, risk-sharing, and long-term public benefit. To realize the full benefits of PPPs, governments must move beyond viewing them as budgetary stopgaps and start integrating them into long-term infrastructure planning. When used strategically, PPPs can not only ease fiscal constraints but also improve service delivery.

Public agencies may also view PPPs as an easy way to shift both risk and responsibility onto the private sector and deliver on the public's infrastructure demands with less fiscal pressure. However, when public agencies treat PPPs as a hands-off solution, they risk exposing themselves to project failures, costly delays, or unsustainable debt burdens. While one of the strengths of PPPs includes an ownership outlook by the private sector delivery team, it does not absolve the public sector of its own responsibility to maintain oversight and accountability. Governments must remain deeply engaged, taking long-term responsibility for monitoring progress, addressing emerging issues, and sharing risks when necessary. Transferring too much risk to the private sector is not the result of skilled negotiation, it's an indication of exploitative practices or misaligned incentives that may ultimately cost the public agency more in the long run. Understanding how to manage risk effectively is essential and governments must build institutional capacity to fully understand PPPs and ensure that risk sharing arrangements work in their favor.

A competent, transparent, and well-coordinated legal and regulatory framework with careful and thoughtful implementation is a cornerstone for building a viable PPP project pipeline, attracting long-term investment, and ultimately, successful projects. When carried out correctly, PPPs have the potential to help the public sector avoid cost overruns and project failures that plague traditional project delivery models. However, government entities must think in terms of long-term value rather than short-term solutions. A strong legal and regulatory framework will help develop solid political will and committed PPP champions who can clearly articulate the benefits of these projects and guide them to success.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## LEVERAGING PPP FOR INFRASTRUCTURE DEVELOPMENT

# Prospects and Challenges to Domestic Players

**Mr. Shiva Hari Dangal is the Chairperson of Trade Tower Group, a diversified business group with interests spanning commercial real estate, hospitality, investments, and energy. An electrical engineer by profession, he brings over 30 years of experience across engineering, management, and business. Before entering the private sector, he worked in consulting capacities with the U.S. Embassy, Kathmandu University, and United World Trade Centers. Mr. Dangal pioneered Nepal's first BOOT-model commercial complex—Trade Tower Thapathali—and has since led several landmark developments including hotels, apartments, and business parks, playing a key role in shaping modern urban infrastructure in Nepal.**

### Public-Private Partnerships in Nepal's Commercial Real Estate: A Case for Growth

Public-Private Partnerships (PPPs) have long been recognized as a catalyst for infrastructure development worldwide, but in Nepal, their adoption has been slow, particularly in commercial real estate. While PPPs have found success in sectors like hydropower, their potential in urban infrastructure, including office complexes, business hubs, and commercial spaces, remains largely untapped. Trade Tower Thapathali, Nepal's pioneering commercial real estate PPP project, exemplifies the possibilities and challenges of this model and highlights the pressing need for policy reforms to enable greater private sector participation in national development.

### Trade Tower Thapathali: A PPP Model in Commercial Real Estate

Established in 2006, Trade Tower Group is a leading conglomerate in Nepal's commercial real estate, hospitality, and investment sectors. The group has been at the forefront of leasing, project financing, and large-scale development. Its flagship project, Trade Tower Thapathali, stands as an iconic commercial complex housing major corporate tenants, including Vishal Group, Chaudhary Group, NIC Asia Bank Headquarters, The British College, Regus, and several hydropower firms.

Trade Tower Thapathali is particularly significant because it was developed under a PPP engagement using the BOOT (Build-Own-Operate-Transfer) model. The Nepal Food Corporation, a government agency, leased 16 ropanis of land for 32 years through a competitive bidding process, allowing Trade Tower Group to finance, design, construct, and operate the complex. The project, covering over 210,000 sq. ft., was inspired by global trends in corporate office space development, filling a critical market gap in Nepal, which lacked dedicated commercial complexes at the time.

Under the BOOT structure, the land remains government-owned, while Trade Tower Group assumes full responsibility for financing, construction, and operation. After the lease period, the property will be transferred back to the government. This model minimizes government financial risk, with the private sector bearing all operational and financial obligations.

### Challenges in Implementing PPPs in Commercial Real Estate

*1. Lack of Awareness and Policy Framework*

Despite the evident benefits, PPPs in commercial real estate remain underutilized in Nepal. Government agencies possess significant underutilized land assets, yet there is no structured approach to partnering with private developers for productive use. The absence of a dedicated PPP policy for commercial real estate creates uncertainty, forcing developers to navigate legal ambiguities through ad hoc interpretations of existing regulations.

For instance, there is no clear administrative process for PPP-led commercial real estate projects. Municipal authorities and tax offices still recognize the original landowner (the government) rather than the project developer, causing bureaucratic hurdles. A structured policy that legally defines leaseholders as project owners for the lease period would ease such administrative bottlenecks.

*2. Financing Constraints for BOOT Real Estate Projects*

One of the major roadblocks for private players in PPP real estate projects is financing. Unlike infrastructure sectors such as hydropower, where financial institutions have established lending frameworks, real estate PPPs have no standardized project-based loan mechanisms. Banks often demand personal collateral, which many developers cannot provide at the scale required for commercial infrastructure.

Trade Tower Thapathali was among the rare cases where project-based financing was secured without collateral. However, even then, personal guarantees were mandatory, making large-scale expansion difficult for mid-sized domestic investors. The lack of exit mechanisms for early-stage investors further limits financial participation, as there are no clear IPO provisions or secondary market mechanisms for such projects.

*3. Short Lease Periods and Investor Reluctance*

Globally, real estate PPP lease periods typically extend to 99 years, offering long-term security to investors. In Nepal, however, lease tenures are significantly shorter, creating financial uncertainty. The limited timeframe discourages investors from committing large-scale capital, as the return on investment remains constrained by the lease duration. Extending lease periods would provide greater flexibility, margin of safety, and financial viability, making Nepal's PPP real estate model more attractive.

### Success Factors: Lessons from Trade Tower Group

Despite these challenges, Trade Tower Group successfully executed the Thapathali project due to three key factors:

1. ***Strong In-House Management:*** The project's design, construction, and operations were all managed internally, ensuring efficiency and cost control.
2. ***Strategic Location and Timing:*** The project launched at a time when Kathmandu lacked dedicated business complexes, coinciding with an economic resurgence post-Maoist conflict.
3. ***Stable Tenant Portfolio:*** The promoters secured long-term corporate tenants, ensuring a stable revenue stream even during economic fluctuations.

Additionally, financial risks were mitigated through adaptive strategies. For example, initial plans only included rental spaces, but to manage rising financing costs (loan interest rates spiked from 8% to 16% per annum), some office spaces were leased out as lump sum deals, generating immediate capital.

### Future Prospects: Strengthening PPP in Commercial Real Estate

The PPP model holds immense potential beyond commercial office buildings. Similar approaches could be adopted for:

- Toll highways and transport hubs

- Airport management and expansion
- Mixed-use business parks and hospitality infrastructure

However, to unlock these opportunities, key policy reforms are needed:

1. ***Dedicated PPP Policy for Infrastructure Development:*** Define clear legal frameworks for leaseholders, exit mechanisms, and government-private sector responsibilities.
2. ***Extended Lease Periods:*** Increase the standard tenure from 32 years to at least 70–99 years to provide investment security.
3. ***Financial Incentives & Institutional Support:*** Just as hydropower PPPs receive tax exemptions and viability gap funding, other infrastructure PPPs should receive similar incentives.
4. ***Simplified Bureaucratic Processes:*** Reduce red tape by ensuring PPP developers are legally recognized as primary project owners for administrative processes during the lease period.
5. ***Investor-Friendly Financial Mechanisms:*** Establish project-based financing options and enable public offerings for commercial real estate PPP projects to facilitate broader investment participation.

**Conclusion: The Road Ahead for Domestic Players**

Nepal is at a turning point where the demand for modern commercial infrastructure is rapidly increasing. PPP, if strategically implemented, can bridge the gap between public land assets and private sector efficiency, fostering sustainable urban growth. Trade Tower Thapathali's success underlines the viability of BOOT models in commercial real estate and demonstrates that, with the right policy support, domestic players can play a transformative role in Nepal's infrastructure development.

By removing bureaucratic roadblocks, improving financing mechanisms, and extending lease terms, Nepal can attract more domestic and foreign investors to the real estate PPP sector, ensuring a dynamic and globally competitive business environment for the future.


**Trade Tower Thapathali Building**

# Governance And Policy Improvement for Joint Venture Partnership with Foreign Investor for PPP Project Development

**Mr. Bkesh Pradhanang is a seasoned infrastructure and hydropower development professional with over two decades of leadership experience in Nepal's energy sector. As Managing Director of Jade Consult Pvt. Ltd., he has played a pivotal role in steering strategic partnerships and large-scale project implementations, including engagements with international entities such as Korea South East Power Co. Ltd., IFC, Voith Hydro GmbH, and the GMR Group. Mr. Pradhanang brings deep expertise in business development, strategic planning, and stakeholder coordination, with a proven track record in advancing power generation, transmission, and distribution initiatives. His dynamic leadership continues to contribute significantly to Nepal's infrastructure growth and energy security.**

**Nepal and Foreign Direct Investment: A Pathway to Sustainable Growth**

Ever since adopting liberal economic reforms in the early 1990s, Nepal has progressively opened up to foreign direct investment (FDI). The reforms were taken to encourage private sector participation and institution-building to support a more investment-friendly regime. Nepal, being geographically located between two economic giants — India and China — and endowed with ample natural resources and manpower, has great potential to become a desired destination for foreign investors.

**Why FDI is Important for Nepal ?**

Nepal still faces various economic issues, some of which include limited financial resources, growing trade deficits, and under-developed infrastructure. In this context, FDI can play a revolutionary role in the development process of the nation. By infusing capital into crucial sectors such as energy, tourism, agriculture, and industry, FDI can generate economic activity and generate much-needed jobs.

Also, foreign investments bring in not just capital. They come in many instances accompanied by technical competence, management know-how, and access to the world market. All of these are needed to boost productivity, expand innovation, and build capacities among local people. For a country like Nepal, which lacks internal savings to finance its needs for investment, FDI acts as a bridging mechanism that closes the gap in financing and sustains long-term growth.

To achieve its vision of becoming a middle-income country and reaching the Sustainable Development Goals by 2030, Nepal will have to bridge an investment gap of Rs 585 billion annually. It could be a realistic and viable way to assist in this to increase FDI.

### The existing policy lacunae and constraints of PPP in Nepal via FDI

Although it has such potential, Nepal has not been able to realize a significant percentage of global FDI. Foreign investment generally streams towards more economically advanced or more developed emerging markets. In contrast to nations such as China and India, Nepal is much behind in attracting sustained foreign capital.

Several barriers hinder Nepal from receiving foreign investors. These include political instability, complex regulatory mechanisms, inadequate infrastructure, and uncertain policies. While steps have been taken to create a more investor-friendly climate — such as the setting up of high level Investment Board Nepal chaired by hon Prime Minister, enactment of required legislation such as PPPIA 2019, FITTA 2019, IEA 2019 etc. and offering different incentives for promotion of private sector including FDI. However, these need to be stepped up and more effectively implemented to attract and mobilized much needed FDI into country.

To achieve full potential of FDI, Nepal has to focus on building a stable, transparent, and supportive investment environment. This includes streamlining bureaucratic processes, enhancing legal protection for investors, and ensuring political stability. Enhancing infrastructure — specifically in transportation, energy, and digital connectivity — will also be important in terms of attracting long-term investment.

Aside from this, Nepal must showcase its unique value proposition to the globe. All these sectors like hydropower, eco-tourism, and organic agriculture hold tremendous opportunities for sustainable high-impact investments. Collaborative partnership among the government, private enterprises, and the international development sector can allow the establishment of an environment in which foreign as well as domestic investment can flourish.

Institutional readiness is required to handle the complexities of PPP projects. Most government institutions in Nepal that are tasked with handling PPPs are under-staffed and lack technical competence in project appraisal, contract negotiation, and risk management. The Investment Board Nepal (IBN), while established as a one-window system for large projects, still suffers from jurisdictional overlaps with line ministries and local governments.

In addition, the absence of a single, fully empowered PPP unit generates coordination issues, inefficient decision-making, and duplication of efforts. This institutional loophole undermines confidence among investors and leads to delays in the implementation of projects.

Nepal's domestic financial markets are still not sufficiently developed to support large-scale infrastructure projects with finance. Domestic banks possess short loan horizons and risk aversion, discouraging them from participating in PPP financing. This has led to over-reliance on foreign investment for capital-intensive projects.

For foreign investors, currency risk is a serious issue. The absence of currency hedging instruments and foreign exchange rate uncertainty leave them vulnerable to huge losses. Additionally, Nepal does not have standard guidelines for risk-sharing between public and private partners, which results in disagreements over responsibility in land acquisition, delays in construction, and shortfalls in revenue.

### Motivational drivers for foreign investments through JVs in Nepal

Foreign Direct Investment (FDI) plays a central role in the growth of the economy in emerging economies like Nepal. Among all the forms of foreign investment, Joint Ventures (JVs) have become a popular way, and reciprocity is brought to foreign investors and domestic partners alike. The JV model not only allows foreign direct investment but also technology transfer, knowledge sharing, and enterprise development. For Nepal, there are several unique factors and drivers that prompt foreign investors to enter the economy in joint ventures.

Nepal is a growing, comparatively underpenetrated market with increasing urbanization, high youth population, and growing infrastructure, energy, and consumer demand. Foreign investors see joint ventures as a strategic choice to achieve early access to the emerging market at a lower cost of entry risk.

JVs offer the chance to draw on the local partner's familiarity with consumer patterns, legal environments, and bureaucratic processes, which are difficult for foreign organizations to manage independently.

Nepal's geopolitical location between India and China makes it an attractive investment center for companies looking to establish a presence in South Asia. Foreign organizations can establish a regional hub using JVs that connects them to two of the world's largest markets. This strategic advantage is especially attractive for logistics, hydropower, tourism, and trade-focused sectors, where Nepal can be utilized as a transit or production center.

Nepal also enjoys lower operational and labor costs compared with other South Asian economies. Foreign investors are able to access cheap human resources through collaborative ventures while local compliance and more effective operational management are ensured with the local partner.

In addition, Nepal's trainable and young labor force makes Nepal attractive to labor-intensive sectors such as manufacturing, textiles, and services.

### New Sectors for JV-Based Foreign Investment:

#### *Data Centers: Clean Energy-Powered Digital Infrastructure*

As the pace of data usage keeps growing exponentially in the global sphere, and as digitalization accelerates, data centers have become a foreign direct investment destination that is strategic in nature. Nepal's inherent strengths like a cool climate, low seismic intensity in some areas, presence of clean hydropower, and geography between India and China provide an attractive proposition for green data center development. These developments are compatible with sustainable development goals and can allow Nepal to shift towards becoming a regional digital hub.

To attract such investments under the PPP and JV model, the government needs to:

- Ensure reliable power supply through specially dedicated substations operated by hydropower.
- Enable high-speed broadband connectivity through countrywide fiber optic deployment.
- Offer tax exemptions and duty-free import of server and cooling equipment.
- Establish secure, transparent legal frameworks on data privacy and digital sovereignty.
- Mixing foreign know-how with domestic infrastructure companies can synergize the operation and design of world-class, green data center clusters.

### Energy-Intensive Industries: Clean Energy-Based Industrialization

Increasing electricity generation potential in Nepal using clean hydropower presents an excellent opportunity for energy-intensive sectors such as aluminum processing, production of electric vehicle (EV) batteries, agro-processing, and cold storage logistics. They have access to cheap, clean power, ample employment, and export opportunities.

Joint ventures here can assist in technology transfer and help effective industry management coupled with access to Nepal's human resources. In this regard:

- Long-term power purchase agreements (PPAs) should be made standardized and investor-friendly.
- Special economic zones (SEZs) near areas of generation can offer plug-and-play infrastructure.
- Exemptions on duty on capital machinery and infrastructure inputs can add to competitiveness.

By linking energy development policy with industrial policy, Nepal could utilize its natural resources for export-led and inclusive industrial growth.

### Cryptocurrency and Blockchain: Regulating Innovation in Digital Finance

Globally, blockchain and cryptocurrency-enabled services are revolutionizing financial systems, infrastructure financing, and digital identities. Nepal, with its youth population of tech-savvy individuals and emerging fintech ecosystem, has potential to selectively enter this frontier under calibrated regulatory frameworks. Joint Ventures may be formed with global blockchain developers to pilot:

- Smart contracts for PPPs (e.g., milestone-based payment)
- Blockchain-based cross-border remittance

- Tokenized infrastructure investment (e.g., crowd-funding of hydropower projects)
- To facilitate this sector in a responsible way, the government must:
- Implement sandbox environments for the central bank or Securities Board of Nepal (SEBON)
- Establish specific legal definitions for crypto assets and tokens
- Deploy AML/KYC standards for anti-money laundering to avoid illegitimate use

With proper guardrails and policy looking to innovate, Nepal has the potential to be a little but agile player in blockchain and digital asset application, drawing foreign investors with capability while ensuring stability of finances.

**Creating legal Frameworks to enable balanced JV investments**

Joint Ventures (JVs) are now the primary means through which infrastructure and energy projects are being delivered in developing economies like Nepal. With growth in Nepal being looked at to be achieved through foreign investment and private sector participation, the country must ensure that its legal frameworks enable fair, efficient, and sustainable JV structures. A good legal system ensures that the interests of foreign investors and domestic partners are balanced, that national interests are protected, and that a favorable environment for long-term cooperation is created.

In Nepal, developing legal frameworks to enable balanced joint venture (JV) investment in public-private partnership (PPP) projects is necessary to attract foreign investors while addressing national development goals. The Public Private Partnership and Investment Act, 2019 (PPPIA) and its related Public Private Partnership Regulation, 2020 provide a combined legal framework to regulate and evolve PPPs, including JVs with foreign investors. These laws aim to fill infrastructural gaps, ease approval procedures, and ensure equitable risk-sharing. Following are key considerations for making effective laws in Nepal:

1. *Transparent Regulatory Framework:* The PPPIA establishes the Public Private Partnership and Investment Committee (PPPIC) to oversee PPP projects, ensuring transparent project selection, carrying out feasibility studies, and following national priorities. Legal frameworks need to mandate transparent roles for the Investment Board Nepal (IBN) and the PPP Center, which coordinate foreign investment approvals and technical assistance. For instance, the IBN streamlines processes utilizing Expression of Interest (EOI) and Request for Proposal (RFP) mechanisms, enhancing investor confidence.
2. *Investor Protection:* For foreign investment, Nepal's legal framework incorporates protective measures such as remittance of profits, protection from expropriation, and access to international arbitration for dispute resolution. The PPPIA offers fiscal incentives such as tax relief and government guarantees to mitigate risks such as political instability or exchange rate risk. These factors are essential in the development of confidence in JVs, particularly in sectors involving hydropower, roads, and urban infrastructure.
3. *Equitable Risk Distribution:* Effective frameworks distribute risks to the party that is best suited to bear them. For example, regulatory risk can be assumed by the state, while operation risk is assumed by private partners. The PPPIA ensures this through transparent contract frameworks and shareholder agreements that prevent private parties from manipulating profit, such as unjustified subcontractor charges. Provisions within the law need to include veto rights for public partners to guarantee national interests.
4. *Dispute Resolution Mechanisms:* Nepal's systems emphasize mutual agreement for settling disputes, particularly for fixed-asset projects up to NPR 500 million, through the Department of Industries. For larger investments, JVs may incorporate international arbitration into contracts, which provide flexibility and reduce legal uncertainties for foreign investors.
5. *National Goal Alignment:* Legal frameworks must position JVs to align with Nepal's National Development Plans and the 2030 Agenda for Sustainable Development. Projects with high socio-economic value are prioritized by the National Planning Commission (NPC), such as renewable energy and rural connectivity. Frameworks must mandate feasibility studies and stakeholder consultations to validate that projects are value for money and offer public benefit.
6. *Capacity Building and Transparency:* The PPP Center promotes best practices and supports capacity-building

activities to enhance local capabilities to run JVs. Legal structures should impose transparency by mandating public disclosure of project details and harsh sanctions for non-compliance, e.g., contract termination or blacklisting, as specified in the PPPIA.

By integrating these pieces, Nepal is able to weave a robust legal framework that aligns the foreign investor interests and public interests so as to invite sustainable JV investment in PPP ventures. International lessons of PPP success, such as the UK experience of completing projects on time, underscore the wisdom of borrowing ideas from elsewhere but tailoring the frameworks to the unique Nepalese context.

### Government and private sector role to facilitate foreign investor partnerships

Public-Private Partnerships (PPPs) are increasingly essential to Nepal's infrastructure ambitions. There is a limited supply of public funds and growing demands for development—particularly in transport, energy, and urban services—while PPPs offer the strategic path to tapping private sector expertise and foreign direct investment (FDI). For Nepal, government-private partnerships are becoming critical vehicles for bringing large-scale projects from conception to delivery. In ensuring the success of such collaborations, there must be a careful combination of regulatory harmonization, risk-sharing frameworks, and partnership-based governance models.

### Government as the Investment Enabler in Nepal

The Government of Nepal plays a central role in enabling PPPs through policy, facilitation, and institutional capacity. Policy stability is one of the most important expectations from foreign investors. Nepal's evolving legal and regulatory framework—e.g., the Public Private Partnership and Investment Act, 2019—provides a foundation, but greater assurance is needed to maintain investor confidence. Investors are particularly attuned to stable rules on foreign ownership limits, profit repatriation, and open dispute resolution processes.

In answer to perceived risk in Nepal's market—whether political transition, exchange rate fluctuation, or something else—the government can enhance its offering of risk mitigation products. These may include sovereign guarantees for strategically important infrastructure projects, currency hedging instruments, and arrangements with multilateral institutions like MIGA or ADB for political risk insurance. These are central to mobilizing institutional and foreign capital into sectors like hydropower, road, and aviation.

The other ongoing issue with Nepalese PPPs is inadequate project preparation. The vast majority of prospective projects fail to move forward due to a lack of reliable feasibility studies, flawed prequalification exercises, or indistinct tender procedures. The government must then invest in solid project development, ensuring bankable, transparent, and technically feasible proposals get into the market. Initiatives like the Investment Board of Nepal (IBN) and industry-specific PPP cells need to be further strengthened to function as one-stop facilitators for both domestic and foreign investors.

### Private Sector as the Engine of Execution

Whereas the state provides the enabling framework, it is foreign investors, or more precisely the private sector, that provides implementation expertise, technological ability, and financial capabilities. For instance, in Nepal's hydropower sector, foreign joint venture partners introduced advanced engineering techniques, modern project management practices, and linkage to international capital markets—improving both project quality and operational standards.

Private firms are also in a better position to craft complex finance packages and cut costs through value engineering. This efficiency is particularly crucial in Nepal's geographically challenging terrain, where infrastructure creation needs to be modified and frugal. In addition, the private sector's profit motive infuses more discipline into performance monitoring, cost control, and continued asset maintenance—areas where public projects suffer a bottleneck.

### Developing Strong Models of Collaboration

Successful PPPs in Nepal will rest on deep, institutionalized collaboration between the public and private sectors. Hybrid governance structures, such as joint venture boards with balanced public-private membership, can ensure transparent decision-making while safeguarding national interests. These structures also enable swift resolution of operational issues and more harmonized goals.

PPP contracts should be shifted towards performance-based contracts with clear output specifications, measurable KPIs, and a well-balanced reward and penalty regime. Third-party audits at regular intervals can promote accountability and protect public interest.

Effective PPPs must also include stakeholder engagement mechanisms, particularly in the multi-cultural socio-cultural environment of Nepal. Local recruitment quotas, grievance redressal mechanisms, and consultations at the grass-roots level are critical in sustaining social acceptability and preventing resistance.

### New Best Practices in our Context

Nepal is progressively adopting best global practices but in a way that is local. Its digitalization of procurement processes, for instance, is enhancing transparency and fast-tracking bureaucratic timelines. ESG-driven financing structures are progressively finding their way, particularly in climate resilience and green infrastructure investments. Furthermore, monitoring and controlling contingent liabilities framework, critical in the protection of the public finances, is in contemplation among the policy circles.

### Conclusion

Nepal is now at the turning point of its development journey, when aligning foreign investment—chiefly via Joint Ventures (JVs) and Public-Private Partnerships (PPPs)—has the ability to remake its infrastructure, economy, and place on the international map. Despite enormous advancement being made to have in place a legal and institutional foundation for luring in foreign direct investment, vital areas in terms of policy uniformity, institutional capacity, governance, and managing risks persist and are causing retardation in advancements. The future of Nepal's PPP model will subsequently depend on proper government commitment, active private sector engagement, and ongoing reform steps that guarantee transparency, accountability, and mutual value. By linking investment strategy to national development goals and inculcating global best practice within a context appropriate to Nepal, the country can unlock its untapped potential and become an established strong and attractive destination for long-term sustainable investment.

## SNIPPET PPP IN URBAN INFRASTRUCTURE

| Category | Details |
|---|---|
| Key Sub-Sectors | - Urban Water Supply: Piped water systems, treatment plants, and public taps.<br>- Sanitation and Sewerage: Wastewater treatment plants and sewer networks.<br>- Solid Waste Management: Composting, recycling, and waste-to-energy projects.<br>- Housing and Land Development: Affordable housing, land pooling, and urban townships.<br>- Recreational Parks and Convention Centers: Parks, water fronts, and urban convention facilities. |
| Current Investments | - Total urban investment requirement: NPR 2,554 billion for 15 years (~NPR 137 billion annually).<br>- Solid waste management: Overall Nepal, 4,900 tons/day collected; Kathmandu generates 1,200 tons/day.<br>- Sewerage: NPR 2.44 billion allocated for 2023/24. |
| Key Investment Areas | - Urban housing projects (4,200 single units and 15,000 apartments in Kathmandu Valley).<br>- Development of greenfield landfill sites and waste processing facilities.<br>- Private sector partnerships for public amenities (parks, convention centers, bus terminals). |
| Challenges | - Infrastructure Gaps: Lack of urban transport integration, limited solid waste processing.<br>- Financial Constraints: High reliance on public funds.<br>- Environmental Risks: Pollution from improper waste disposal practices. |
| Future Growth Areas | - Smart Cities: Integration of ICT for urban management.<br>- Waste-to-Energy Plants: Biogas, briquette, and electricity generation from organic waste.<br>- Cross-Sectoral Integration: Combining urban infrastructure with tourism, transport, and recreation. |
| Notable Initiatives | - Kathmandu Skywalk Tower: NPR 2 billion private investment.<br>- National Urban Development Strategy: Focus on sustainable and green urban growth.<br>- Land Pooling: Development of 690 hectares into 29,918 service plots across Kathmandu Valley. |

## REINSURANCE SECTOR IN NEPAL

# A Pillar of Economic Stability and Growth

**Ms. Upasana Poudel is the first female CEO in Nepal's insurance and reinsurance sector, currently leading Himalayan Reinsurance Company Ltd., the nation's first public-private reinsurance company. Previously, she headed United Insurance Ltd., becoming the only woman to lead a non-life insurer in Nepal. An MBA graduate from Delhi University's FMS, she has over a decade of leadership experience across Nepal, India, and global markets, working with firms like ICICI Lombard, Bharti AXA, and Vodafone. Under her leadership, Himalayan Re achieved regional expansion, profitability, and became the first to go public within three years. Recognized among Nepal's top 50 influential women in 2024, she has received several national and international awards for corporate transformation and leadership excellence.**

In the world of insurance, managing risk is the name of the game. Insurance companies take on the responsibility of protecting individuals and businesses from financial losses, but the question remains: how do insurers protect themselves from potentially devastating losses, especially in countries prone to natural disasters? The answer lies in reinsurance, a sophisticated mechanism that enables insurers to transfer part of their risk to other insurers, known as reinsurers. This practice not only stabilizes the financial health of insurance companies but also strengthens their ability to pay claims, particularly in a country like Nepal, where the threat of earthquakes, floods, and landslides is ever-present.

### Understanding Reinsurance

Reinsurance can be seen as "insurance for insurers." It is a risk management strategy wherein insurance companies purchase coverage from reinsurers to protect themselves from the financial burden of large or catastrophic claims. By sharing the risk with one or more reinsurers, the original insurer (called the ceding company) limits its exposure to loss, allowing it to stay financially stable even when faced with significant claims.

For instance, when a major natural disaster strikes—such as the 2015 Gorkha earthquake in Nepal or the recent damages caused by unexpected flood—the financial impact on insurers can be overwhelming. The claims from policyholders could run into billions of rupees, far beyond what a single insurance company can handle. In such cases, the role of reinsurance becomes vital. Through reinsurance agreements, the ceding company (insurance) retains only a portion of the risk, with the reinsurer assuming responsibility for the rest. This sharing of liability ensures that the insurance company can continue to operate, pay claims, and provide coverage to new policyholders, even after a disaster.

The reinsurance sector in Nepal has emerged as a critical component of the country's economy and its broader insurance industry. Over the past few years, the reinsurance landscape in Nepal has transformed, driven by rapid economic growth, regulatory changes, and the increasing exposure to catastrophic events such as earthquakes and floods. As the insurance industry grows in both capacity and scope, the need for robust reinsurance support has become more vital than ever.

**The Changing Reinsurance Market in Nepal**

Nepal's reinsurance market has undergone significant changes in recent years. As the country experiences steady economic development, the exposure to larger and more complex risks has grown. Alongside this, evolving regulations and increasing investments in infrastructure have prompted insurers to seek greater risk management solutions. At the same time, natural disasters—particularly earthquakes and flood —pose substantial risks to the insurance sector, highlighting the need for a solid reinsurance framework to manage potential claims surges.

As of FY 2023/24, the insurance industry in Nepal consists of **two reinsurance companies**, **14 non- life insurance companies**, **14 life insurance companies**, and **7 microinsurance companies**. The total equity capital deployed across these companies amounts to approximately **NPR 109 billion**. Life insurance accounts for 50% of this capital, with the remaining half split between non-life insurance, microinsurance, and reinsurance companies.

During FY 2023/24, the industry's gross premium totalled **NPR 197 billion**, an 8% increase compared to the previous fiscal year (FY 2022/23). This growth underscores the increasing demand for reinsurance capacity, as insurance companies look to manage their risks effectively while expanding their product offerings and market reach.

**The Evolution of Nepal's Reinsurance Sector**

The history of reinsurance in Nepal began in 2014 (2071 B.S.) with the establishment of **Nepal Reinsurance Company Limited** (Nepal Re), marking the country's first entry into the reinsurance market. Nepal Re's formation was a significant milestone, providing much-needed domestic reinsurance capacity and reducing the reliance on foreign reinsurers. Prior to its establishment, most reinsurance premiums were paid to foreign markets, leading to a substantial outflow of capital from Nepal.

The landscape of Nepal's reinsurance industry further strengthened in 2021 (2078 B.S.) with the introduction of **Himalayan Reinsurance Limited** (Himalayan Re). This new entrant into the market enhanced the domestic reinsurance sector's capability and helped position Nepal as a player in the global reinsurance market. Ensuring that there is minimal currency outflow in the economy. the company has also provided the reinsurance capacity as per its appetite for PPP projects like Arun-3 which is 900 MW capacity hydropower project along with other highway construction projects, factories. hotels etc. Notably, Himalayan Re also contributed to an increased inflow of foreign currency by establishing its presence in international markets, thereby generating new revenue streams for the country.

*In NPR billion*

| Particulars | FY 21/22 | FY 22/23 | FY 23/24 |
|---|---|---|---|
| Market Premium (Insurance Companies) | 178 | 183 | 198 |
| Reinsurance Premium (Insurance Companies) | 27.6 | 28.8 | 27.9 |
| Retention of Risk (Insurance Companies) | 84.5% | 84.3% | 85.9% |
| Total Premium (Reinsurance Companies) | 13.2 | 13.9 | 18.7 |
| % Share of (Reinsurance Companies) | 48% | 48% | 67% |

We can see as per the above table that even though there is no much significant growth in reinsurance premium being paid by the insurance companies in past 3 years, the reinsurance premium retained by the domestic reinsurance companies has increased to 67% in FY 23/24 as compared to 47% in FY 21/22. This in turn has retained ~NPR 19 billion within the country instead of the ~NPR 13 – NPR 14 billion in FY 21/22 and FY 22/23 simultaneously. This has not only aided in retaining the business within the country but has ensured that the money generated from the business is retained within the country and is contributed to the country's economic growth.

Today, the two reinsurance companies —Himalayan Re and Nepal Re — are playing a pivotal role in supporting the domestic insurance market. They have significantly boosted the capacity of Nepalese insurers, enabling them to retain more risk domestically and reducing the outflow of reinsurance premiums to international markets. This shift has not only strengthened the financial position of Nepal's insurers but also fostered greater stability in the local market.

### Strengthening the Economy Through Reinsurance

The growth of Nepal's reinsurance sector is having a positive ripple effect on the country's economy. By retaining more reinsurance premiums within Nepal, the industry is reducing the outflow of capital, which was previously directed to foreign reinsurers. This shift is vital for Nepal's economic stability, as it keeps funds circulating within the national economy, allowing for greater investment in local projects and development initiatives.

Moreover, the presence of strong domestic reinsurers like Nepal Re and Himalayan Re is fostering confidence in the broader insurance sector. With these companies providing a solid reinsurance backbone, insurers in Nepal can confidently offer coverage for large and complex risks, including those related to infrastructure development, agriculture, hydropower projects, and tourism. This capability not only supports the growth of key economic sectors but also promotes resilience against financial shocks caused by natural disasters or other large-scale events.

The entry of Nepalese reinsurers into international markets, facilitated by companies like Himalayan Re, is also contributing to the inflow of foreign currency. As these reinsurers grow their global footprint, they bring new revenue into Nepal, supporting the country's foreign exchange reserves and enhancing the overall stability of the financial sector.

### The Economic Impact of Reinsurance in Nepal

The **economic benefits** of a strong reinsurance sector extend far beyond the insurance industry. By retaining more reinsurance premiums within Nepal, the sector has reduced capital outflows, which has been critical for maintaining the country's foreign exchange reserves. Additionally, the reinsurance industry has provided a **safety net** for insurers, allowing them to continue operating even in the face of significant claims, such as those resulting from natural disasters.

Furthermore, domestic reinsurers like **Himalayan Re** have expanded into international markets, generating **foreign currency inflows** through their international operations. This helps strengthen Nepal's economy by contributing to its foreign exchange reserves and providing a stable source of revenue from abroad.

The presence of a robust reinsurance market also **encourages investment** in other sectors of the economy, such as infrastructure, agriculture, hydropower, and tourism. Investors are more likely to fund large projects when they know that the risks associated with those projects are being managed effectively through reinsurance. This fosters confidence in the broader economy and supports long-term development goals.

### Challenges and Opportunities

While the growth of Nepal's reinsurance market is promising, there are several challenges that the sector must address. One of the primary challenges is the **increased exposure to catastrophic risks**, particularly given Nepal's vulnerability to earthquakes and floods. As these risks grow in both frequency and severity, the demand for reinsurance will continue to rise, putting pressure on reinsurers to maintain adequate capital reserves and risk management practices.

Additionally, the sector faces the challenge of keeping pace with **global best practices**. As Nepal's reinsurance market grows, it will need to adopt more sophisticated risk modelling tools, improve regulatory frameworks, and attract more international expertise to ensure its continued development.

However, with these challenges come opportunities. As Nepal continues to develop economically, the demand for insurance products will rise, which will further drive the need for reinsurance. The **increasing urbanization** and **infrastructure development** in Nepal offer significant opportunities for reinsurers, particularly as new risks emerge from large-scale projects and a growing middle class.

### The Future of Reinsurance in Nepal

Looking ahead, the **future of reinsurance in Nepal** is filled with potential. The introduction of new reinsurers, coupled with a supportive regulatory environment, has positioned the sector for continued growth. As Nepal's economy grows and diversifies, the reinsurance sector will play an increasingly critical role in managing risk, supporting insurance companies, and contributing to economic stability.

In the coming years, we can expect to see further **integration**

**of Nepal's reinsurance market into the global reinsurance landscape**, with companies like Himalayan Re and Nepal Re continuing to expand their international presence. At the same time, the sector will likely adopt new technologies, such as data analytics and artificial intelligence, to improve risk assessment and management.

## Conclusion

The reinsurance sector in Nepal is playing a transformative role in shaping the future of the country's insurance industry and economy. Over the past few years, reinsurance has evolved from being a relatively nascent industry to a key pillar of financial stability, supporting both domestic insurers and the broader economy. With the introduction of new reinsurance companies like Himalayan Re and the continued growth of Nepal Re, the sector is better equipped to manage the increasing risks posed by natural disasters and other large-scale events.

As Nepal's insurance industry continues to grow, so too will the demand for reinsurance. The sector's ability to adapt to changing market dynamics, regulatory requirements, and growing risk exposures will be essential in ensuring that Nepal remains resilient in the face of both natural and man-made challenges. By retaining more premiums within the country and expanding its global presence, Nepal's reinsurance sector is poised to play an even more critical role in the country's economic development and financial stability in the years to come.

# VfM and Contingent Liability for Resilient and Sustainable PPP Concessionaires in Nepal

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## 1. Introduction

Public-Private Partnerships (PPPs) have become a cornerstone of infrastructure financing and development in Nepal. Given the country's need for high-quality infrastructure in energy, transport, health, and urban services, PPPs allow the government to tap into private sector innovation, finance, and efficiency. However, the success of PPPs depends heavily on their ability to deliver Value for Money (VfM) and appropriately manage Contingent Liabilities (CLs) that may arise throughout the project lifecycle.

Nepal's developmental needs are immense, with infrastructure gaps estimated to be in the billions of dollars. The country faces limited public finance and a growing demand for services due to urbanization and economic transformation. Consequently, PPPs are seen not only as a financing tool but also a mechanism to enhance service delivery. Yet, unless these partnerships deliver measurable value and mitigate fiscal risks, they can impose long-term burdens on public finances.

The post-COVID recovery, increasing climate vulnerabilities, and Nepal's commitments under the Sustainable Development Goals (SDGs) further underscore the necessity of embedding resilience and sustainability in infrastructure development. Therefore, evaluating VfM and managing CLs are not just financial concerns but strategic imperatives to ensure fiscal prudence, operational integrity, and long-term service reliability.

## 2. Understanding Value for Money (VfM) in PPPs

*2.1 Conceptual Overview*

Value for Money refers to the optimum combination of whole-life cost and quality to meet user requirements. In PPPs, this means not just obtaining services at the lowest cost but ensuring that public investments yield better performance, innovation, and efficiency than traditional procurement. VfM is achieved when the benefits of using the PPP approach—risk sharing, innovation, and life-cycle maintenance— outweigh the higher costs associated with private financing. It also includes indirect benefits such as capacity building, economic spillovers, and enhanced service reliability.

*2.2 Methodologies*

Value for Money assessments form the core of sound PPP decision-making. They offer an evidence-based approach to determining whether a proposed PPP will provide better outcomes than conventional public sector procurement. In countries like the UK and Australia, VfM assessments are mandated at multiple stages: project selection, procurement, and post-implementation. These assessments not only inform go/no-go decisions but also help allocate risks efficiently and transparently.

In Nepal's context, where public investment efficiency has historically been low and project delays are common, adopting robust VfM methodologies becomes even more critical. Additionally, Nepal's increasing reliance on donor support and concessional finance necessitates a transparent system for project evaluation to reassure stakeholders of fiscal prudence and developmental alignment.

Tools to assess VfM include:

- **Public Sector Comparator (PSC):** Simulates the risk-adjusted cost of delivering the project through traditional procurement. If the PPP proposal provides better value, it is pursued.
- **Cost-Benefit Analysis (CBA):** Measures socio-economic impacts including environmental and distributional effects. It captures non-financial benefits like time savings, pollution reduction, and social inclusion.
- **Qualitative Assessment:** Complements quantitative tools by assessing alignment with strategic priorities, innovation, and risk transfer.
- **Lifecycle Costing:** Ensures total project cost, including design, construction, operation, and maintenance, is considered.

*2.3 Importance for Nepal*

In Nepal, project appraisals often focus on the capital cost of infrastructure while neglecting the broader value delivered over the asset's lifecycle. This short-sighted approach has led to instances of suboptimal investments, maintenance deficiencies, and early obsolescence. A well-integrated VfM framework can help avoid these pitfalls by emphasizing long-term sustainability and operational efficiency over immediate cost savings.

Moreover, the growing engagement of Nepal with international financial institutions and development partners places added pressure on the country to improve its governance mechanisms for public investment. Integrating VfM assessments into the PPP process can help achieve:

- **Better planning and project selection:** VfM analysis ensures that only economically viable and socially beneficial projects are prioritized.
- **Optimized risk sharing:** It enables a more effective allocation of risks between the public and private sectors, improving project sustainability.
- **Improved investor confidence:** A transparent, methodical approach to project evaluation builds trust among investors and lenders.
- **Stronger development outcomes:** When properly conducted, VfM assessments ensure that infrastructure projects contribute to poverty reduction, economic growth, and inclusive development.

Adopting VfM principles can thus transform Nepal's PPP ecosystem into one that supports resilient infrastructure while ensuring accountability in the use of public resources.

*2.4 VfM Challenges in Practice*

Despite the theoretical benefits of VfM in PPPs, Nepal faces significant practical barriers that hinder its effective application:

- *Limited institutional capacity:* Most government agencies lack personnel trained in financial modeling, economic evaluation, and PPP structuring. This gap reduces the quality and consistency of VfM appraisals.

- *Weak data systems:* Reliable data on construction costs, lifecycle benchmarks, user demand, and environmental impacts are often unavailable or outdated, hampering the accuracy of VfM estimates.
- *Political economy risks:* Project selection in Nepal has frequently been driven by political considerations rather than economic rationale, undermining the credibility of VfM analysis.
- *Insufficient regulatory mandates:* Although some guiding documents exist, there is no binding legal requirement for comprehensive VfM assessments, allowing many projects to proceed without robust scrutiny.
- *Post-contract complacency:* VfM is often treated as a pre-contract requirement. Once the project is awarded, there is minimal monitoring or re-evaluation to ensure that promised value is actually delivered over time.

Addressing these challenges will require a multipronged strategy, including capacity development, regulatory reform, institutional strengthening, and investment in data and digital tools. A sustained effort in these areas will enable Nepal to adopt VfM as a standard practice, fostering a more resilient and effective PPP landscape.

## 3. Contingent Liability in PPPs

*3.1 Definition and Relevance*

Contingent liabilities (CLs) are future obligations that materialize only when specific events occur. In the PPP context, they arise from government guarantees, demand shortfalls, breach of contract, and unexpected cost escalations.

**Types of CLs in PPPs include:**

- *Demand Risk Guarantees:* Minimum revenue guarantees for toll roads, power purchase agreements, etc.
- *Political Risk Guarantees:* Compensation for adverse government actions.
- *Termination Payments:* Due upon early contract termination.
- *Force Majeure Compensation:* For events like natural disasters.

*3.2 Risks from CLs*

Improperly managed CLs can cause budget shocks, reduce fiscal space, and damage public credit ratings. A cascade of triggered guarantees across projects may overwhelm the treasury, particularly in times of economic downturn or natural disasters.

In Nepal's case, projects with high foreign investment, such as hydropower plants, may have foreign exchange risk clauses. The lack of local currency financing exacerbates this risk. Without robust monitoring, these exposures can remain hidden until they become liabilities.

*3.3 Tools for Management*

Internationally accepted tools include:

- PPP Fiscal Risk Assessment Model (PFRAM): A tool co-developed by the IMF and World Bank to assess fiscal exposure.
- Fiscal Risk Statements: Annually published reports that disclose CLs in a transparent manner.
- Contingent Liability Ceilings: Legal or policy limits on exposure.
- Budgetary Provisions: Dedicated funds (e.g., Viability Gap Fund, Guarantee Funds) to meet potential obligations.

*3.4 Nepal's Readiness*

Nepal's fiscal risk management practices are evolving, but the absence of standardized templates and institutional mandates often leads to inconsistent reporting. The Ministry of Finance has started incorporating PPP-related risks into its Medium-Term Expenditure Framework (MTEF), yet detailed project-level assessments remain sporadic.

Strengthening the Auditor General's oversight and equipping the Office of the Financial Comptroller General (OFCG) with tools to track and simulate CLs is essential.

## 4. Legal and Institutional Framework in Nepal

*4.1 Legal Provisions*

The Public-Private Partnership and Investment Act, 2075 (2019) is Nepal's principal legislation governing

PPPs. It outlines the responsibilities of public entities, the role of Investment Board Nepal (IBN), bidding procedures, and risk-sharing provisions.

**The Act allows:**

- Competitive bidding as a norm.
- Use of VfM tools for project screening.
- Government support through VGF and revenue guarantees under specific criteria.

However, the law lacks detailed secondary legislation to guide execution, especially in areas like fiscal risk assessment and sustainability appraisal.

*4.2 Institutional Set-up*

- Investment Board Nepal (IBN): Manages national-level PPP projects and foreign investments.
- Line Ministries & Local Governments: Implement sectoral and local PPPs.
- Ministry of Finance: Oversees fiscal impacts, including contingent liabilities.
- National Planning Commission (NPC): Aligns PPP projects with national plans.

Despite having multiple institutions, the absence of a central PPP unit with technical, legal, and financial experts leads to fragmented decision-making.

*4.3 Key Gaps*

- Lack of standardized VfM guidelines.
- Limited technical staff in line agencies.
- Absence of a national PPP database for monitoring and evaluation.
- Minimal integration of ESG or resilience metrics in feasibility studies.
- No formal mechanism to assess and approve government support measures based on fiscal risk.

## 5. Resilience and Sustainability in PPPs

*5.1 The Need for Resilience*

Nepal ranks among the most disaster-prone countries. The 2015 earthquake and frequent floods underscore the need for robust infrastructure. PPPs, if not designed with resilience, may collapse under environmental or operational stress, causing service disruption and financial loss.

Resilient infrastructure must:

- Withstand natural shocks.
- Enable rapid recovery.
- Incorporate redundancy and flexibility in design.

Climate-resilient PPPs can reduce lifecycle costs and increase investor confidence. This is crucial for sectors like hydropower and transport.

*5.2 Sustainability Considerations*

Sustainability extends beyond environmental protection. It includes:

- Environmental sustainability: Low-emission construction, efficient energy use.
- Social sustainability: Community consultation, equitable access.
- Governance sustainability: Transparent procurement, accountability mechanisms.

Nepal has piloted green financing tools but lacks integration in PPP guidelines. Mainstreaming ESG in VfM assessments and procurement scoring could improve project quality.

*5.3 Gender and Inclusion in PPPs PPP*

Frameworks often overlook gender and marginalized group impacts. Inclusive project design ensures broader benefits and reduces social risks. Applying Gender Equality and Social Inclusion (GESI) principles can improve service uptake and project success.

## 6. Case Studies from Nepal

*6.1 Upper Trishuli-1 Hydropower Project*

This 216 MW project is a notable PPP supported by international donors. Competitive bidding, due diligence, and multi-stakeholder involvement helped achieve VfM. However, environmental clearance delays and local opposition affected timelines. The project highlights the importance of early stakeholder engagement and regulatory clarity.

*6.2 Kathmandu Valley Waste Management*

PPP Aimed at improving urban sanitation, this PPP faced operational inefficiencies and public resistance.

The lack of performance benchmarks and unclear responsibilities led to service failures. It underscores the need for enforceable service-level agreements and real-time performance monitoring.

*6.3 Gautam Buddha International Airport*

The airport's operations model highlights challenges in demand forecasting and revenue sharing. While developed through public funds, future concession models for O&M could benefit from strong VfM and CL screening.

**7. International Best Practices**

*7.1 United Kingdom*

The UK uses PSC and whole-life costing extensively. Institutions like the National Audit Office oversee VfM. CLs are disclosed in government accounts and regularly stress-tested.

*7.2 Chile and Colombia*

These countries have centralized PPP units with financial modeling tools and CL monitoring systems. Chile maintains a contingent liabilities fund to meet potential PPP obligations.

*7.3 Lessons for Nepal*

- Establish independent VfM review panels.
- Build capacity for financial modeling and risk analysis.
- Adopt digital platforms for project monitoring.
- Align PPPs with green infrastructure and climate finance.
- Promote long-term performance-based incentives.

**8. Policy Recommendations for Nepal**

A resilient and sustainable PPP framework in Nepal demands more than sporadic project-level success. It requires systemic changes, embedded across all levels of government and project cycles. In recent years, as infrastructure priorities have grown and fiscal space has narrowed, the need for a coherent policy approach has become critical. Nepal has undertaken several PPP initiatives with mixed results demonstrating the potential, while delays and fiscal burdens reflect underlying weaknesses in project appraisal, contract management, and risk oversight. To address these issues, this section outlines comprehensive policy measures across four strategic pillars:

*8.1 Strengthening VfM Mechanisms*

- Make VfM assessments mandatory for all PPPs above a defined threshold.
- Develop user-friendly toolkits for line ministries.
- Set up a public database of VfM studies to encourage transparency.
- Engage third-party auditors to validate VfM outcomes.

*8.2 Managing CLs Proactively*

- Include CL estimates in project appraisals.
- Use sovereign guarantee ceilings to avoid overexposure.
- Train officials on the use of PFRAM and fiscal reporting.
- Create a rolling contingent liability register accessible to MoF, OAG, and IBN.

*8.3 Promoting Resilience and Sustainability*

- Make ESG screening a part of feasibility reports.
- Provide fiscal incentives for green PPPs.
- Integrate resilience in PPP evaluation scores and contract enforcement.
- Include disaster risk insurance in project design.

*8.4 Institutional Reforms*

- Create a **PPP Centre of Excellence** with multidisciplinary experts.
- Build a national PPP dashboard for public access and investor confidence.
- Encourage collaboration between academia, government, and private sector.
- Mandate inter-agency coordination for high-risk PPP projects.

**9. Conclusion**

Public-Private Partnerships (PPPs) are an indispensable part of Nepal's strategy to bridge its vast infrastructure deficit. However, the promise of PPPs can only be realized if these partnerships deliver Value for Money (VfM) while adequately managing Contingent Liabilities (CLs). As Nepal confronts fiscal constraints, climate vulnerabilities, and growing development needs, embedding resilience and sustainability within its PPP framework is no longer optional—it is imperative.

This article has explored how VfM and CL considerations form the foundation for credible, transparent, and results-driven infrastructure investments. While global best practices offer methodological tools like Public Sector Comparators, lifecycle costing, and probabilistic risk analysis, Nepal must tailor these approaches to its own institutional realities. Current bottlenecks such as weak technical capacity, inconsistent project appraisal standards, and politically driven project selection have hindered effective PPP implementation. Overcoming these challenges will require a strategic blend of policy reform, institutional capacity building, legal enforcement, and cross-sectoral coordination.

Crucially, the long-term sustainability of PPPs must go beyond financial metrics. In a country like Nepal, where infrastructure is vulnerable to natural disasters and climate shocks, resilience must be mainstreamed into project planning, design, and operations. This means aligning PPP investments with broader national goals like the Sustainable Development Goals (SDGs), the National Climate Change Policy, and medium-term fiscal frameworks.

Contingent liabilities, if ignored, pose a silent yet serious threat to fiscal stability. The adoption of proactive risk management tools, including caps, reserves, and transparent disclosure mechanisms, will be key to ensuring that the government's financial commitments do not jeopardize public finances in the long run.

The future of PPPs in Nepal rests not only on attracting private investment but on creating an ecosystem that guarantees accountability, fiscal prudence, and developmental impact. A resilient and sustainable PPP regime—rooted in the principles of VfM and prudent CL management—can serve as a powerful catalyst for inclusive growth, environmental stewardship, and national resilience.

To this end, the path forward is clear: strengthen institutions, enforce robust appraisal methodologies, improve data systems, and integrate sustainability metrics throughout the project lifecycle. With sustained political will, collaborative governance, and support from development partners, Nepal can evolve its PPP framework into a model of effective public investment for the region.

## References


ADB. (2020). Public-Private Partnership Monitor: Nepal. Asian Development Bank.

IMF & World Bank. (2016). PPP Fiscal Risk Assessment Model (PFRAM) User Guide.

Investment Board Nepal. (2023). PPP Projects Database and Annual Reports.

Ministry of Finance, Nepal. (2019). Public-Private Partnership and Investment Act, 2075 (2019).

World Bank. (2017). PPP Reference Guide Version 3.0.

OECD. (2022). Green Infrastructure in Emerging and Developing Economies.

UNESCAP. (2021). Sustainable Infrastructure in Asia-Pacific: Principles and Practice.

Nepal Planning Commission. (2020). Fifteenth Plan (2019/20–2023/24).

National Audit Office UK. (2021). Lessons from Major Projects Authority Reviews.

IBN Nepal. (2024). Guideline on VfM and Risk Allocation for PPP Projects.

UNDP. (2022). Financing Resilient Infrastructure in South Asia.

## A YEAR IN REVIEW

# National and Global Developments in Public-Private Partnerships

### Nepalese Context

**1. Nepal's First PPP Transmission Line Project Launched**

Nepal initiated its first public-private partnership (PPP) in the energy sector by launching the Tamor-Dhungesanghu 220 kV transmission line project. This 32 km line, costing approximately Rs 3.8 billion, is being developed under a Build-Operate-Transfer (BOT) model. The project signifies a strategic shift to involve private entities in achieving the government's ambitious target of generating 28,500 MW of electricity by 2035.

*Cited Source: New Business Age (2024)*

**2. First Electricity Exports via India's Grid**

Nepal began exporting power to Bangladesh (40 MW) and India's Bihar state (80 MW) in mid-June 2025, under a tripartite agreement enabling cross-border trade via Indian infrastructure. This marks a major milestone in Nepal's domain of private/public partnerships in energy trading

*Cited Source: Reuters (2025)*

**3. ADB Supports Nepal's Energy Infrastructure Overhaul**

The Asian Development Bank approved a $311 million loan to modernize Nepal's electricity transmission and distribution networks. The project includes upgrading 290 km of transmission lines and installing 8 MW of solar photovoltaic systems across various provinces, aiming to enhance energy reliability and support sustainable economic growth.

*Cited Source: Adb.org (2024)*

**4. India-Nepal Railway Connectivity Project Advances**

The collaborative India-Nepal Railway Connectivity Project made significant strides, with several railway links planned or under development, including the Jaynagar-Bardibas Railway and the Raxaul-Kathmandu Railway. These projects aim to enhance trade, tourism, and regional integration by improving cross-border transportation infrastructure.

*Cited Source: Millenium Post (2025)*

**5. Karnali Province Hosts PPP Workshop**

In January 2025, Karnali Province officials participated in a workshop conducted by the Commercial Law Development Program (CLDP) focusing on Public-Private Partnerships. The workshop aimed to enhance understanding and implementation of PPPs at the provincial level, promoting infrastructure development through collaborative efforts.

*Cited Source: CLDP (2025)*

**6. Nepal Seeks Indian Investment for Hydropower Projects**

Nepal is actively seeking Indian investments to enhance its hydroelectric power generation capacity, aiming to achieve a generation capacity of 28 gigawatts within the next 10 to 12 years. Indian private companies, including the Adani Group, are involved in ongoing projects, reflecting Nepal's openness to foreign investment in its energy sector.

*Cited Source: Reuters (2024)*

**7. Nepal Investment Summit 2024: Bridging Vision with Investment Reality**

Nepal hosted the Nepal Investment Summit (NIS) 2024 on April 28–29 at The Soaltee Hotel, Kathmandu, attracting over 2,500 participants from 55 countries, including nearly

800 foreign delegates. The summit aimed to bolster investor confidence and promote foreign direct investment across key sectors like hydropower, tourism, IT, and manufacturing. Key developments included the Investment Facilitation Ordinance to reform eight laws enhancing the investment climate, and approvals of NPR 9.13 billion for four diverse projects. Over a dozen MoUs were signed, including a strategic agreement between NAPPP and WAPPP to strengthen PPP frameworks in Nepal.

*Cited Sources: NewBusinessAge, Nepal Economic Forum (2024)*

### 8. MCC Infrastructure Projects Suspended

In February 2025, the United States suspended funding for two major infrastructure projects in Nepal, following an executive order pausing foreign development assistance. The $500 million projects, supported by the Millennium Challenge Corporation (MCC), included a power transmission line and road improvement efforts, creating uncertainty about their future.

*Cited Source: Reuters (2025)*

### 9. 'Take-and-Pay' Policy Controversy

In June 2025, the government's inclusion of take-and-pay terms in the national budget (meaning NEA would not be required to purchase all generated power) sparked major backlash. The Independent Power Producers Association (IPPAN) warned this could derail ~17 GW worth of hydropower investments that depend on bankable PPP contracts. Energy Minister acknowledged the issue and pledged to correct it

*Cited Source: Kathmandu Post (2025)*

### 10. Sudurpashchim Investment & Development Summit (Dhangadhi)

The Foreign Minister of Nepal, Dr Arzu Rana Deuba, participated in a pre-investment event at Dhangadhi Airport, emphasizing investor interest and provincial reforms from June 3-5, 2025. The main summit is scheduled for September 17–18, 2025.

*Cited Source: risingnepaldaily.com*

## Global Context

### 1. UK Seeks Global Green Investors with Windfarm Cash and Planning Policies

The UK government is launching a strategic initiative to attract global green investors amid growing concerns over the instability of US clean energy policies under Donald Trump. With £300 million earmarked for offshore windfarm development and a 60-country energy summit held in London, the UK aims to reassert its leadership in low-carbon energy. Energy Secretary Ed Miliband and Labour leader Keir Starmer emphasized Britain's long-term commitment to clean energy and investment stability, contrasting with Trump's anti-renewable stance and policy volatility, which recently led to the halt of a major US windfarm project. Labour's £8.3 billion pledge to public-private clean energy collaboration adds further weight, though fiscal constraints cast some uncertainty. While welcomed by the renewables sector, proposed planning policy reforms—reducing early public consultation—have sparked concern among wildlife and environmental groups. Critics argue that focus is also needed on domestic measures, such as home insulation, to reduce reliance on fossil fuels. Experts agree that reducing gas dependence will lower electricity costs, reinforcing that the UK's path to net-zero remains economically viable and strategically essential.

*Cited Source: AP News (2025)*

### 2 IDB Promotes Public-Private Partnerships to Attract Investment and Close Infrastructure Gaps

In 2024, the Inter-American Development Bank (IDB) contributed to closing $2.95 billion in five key infrastructure projects, in addition to initiating contracting processes worth $1.9 billion to modernize infrastructure services in several countries. In recent years, the IDB has supported more than 50 PPP projects in the region, with the potential to mobilize $18 billion in high-impact investment.

*Cited Source: Devdiscourse (2025)*

### 3. Partnership for Global Infrastructure and Investment

The Partnership for Global Infrastructure and Investment (PGII) is a collaborative effort by Group of Seven (G7) to fund infrastructure projects in developing nations based on the trust principles of the Blue Dot Network. It is intended to be the bloc's counter to China's Belt and Road Initiative and a key component of the "Biden Doctrine". Over the next five years, the G7 governments and its private business sector will invest $600 billion. It aims to offer an alternative to China's estimated $1 trillion infrastructure investments worldwide over the past decade.

*Cited Source: Archives, The White House (2022)*

**4. Global Gateway Initiative**

The Global Gateway Initiative is a strategy by the European Union to invest in infrastructure projects worldwide. The project was initiated by the EU Commission under the leadership of Ursula von der Leyen. Over the period 2021–2027, the EU will invest €300 billion. Investment into Africa is the regional priority of the initiative, as half the funds are allocated to projects on the continent. They aim to improve the green transition, digital transition, sustainable economic growth, health care, and education in Africa.

*Cited Source: European Commission (2024)*

**5. Financing Asia's Transition Partnership**

Financing Asia's Transition Partnership (FAST-P), was implemented by the Monetary Authority of Singapore as a protocol designed to unite both private-public partnerships in the sphere of decarbonization and climate change resilience, first unveiled to the public at COP.

*Cited Source: EDB Singapore (2024)*

**6. UNESCAP Boosts PPP Capacities in LDCs**

In 2024–25, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) convened a major regional collaboration event as part of its ongoing initiative to strengthen public-private partnerships (PPPs) across Least Developed Countries (LDCs) in Asia and the Pacific. The event was held under the umbrella of the Infrastructure Financing and PPP Network and brought together senior government officials, development partners, and private sector stakeholders from across the region. The event focused on scaling up blended finance and improving regulatory environments for sustainable infrastructure. Special emphasis was placed on aligning national PPP strategies with the Doha Programme of Action for LDCs (2022–2031) and leveraging partnerships to address financing gaps in transport, energy, water, and health infrastructure. Participating countries shared best practices and progress updates, while UNESCAP presented findings from its upcoming Asia-Pacific Countries with Special Needs Development Report 2025, which evaluates how regional PPP frameworks can support inclusive growth and SDG implementation.

*Cited Source: UNESCAP PPP Network and Special Needs Development Report Meeting Documents (2024–25)*

**7. World Sustainable Development Summit (WSDS) – New Delhi, India (March 5–7, 2025)**

Organized by The Energy and Resources Institute (TERI), WSDS 2025 emphasized "Partnerships for Accelerating Sustainable Development and Climate Solutions." The summit underscored the critical role of PPPs in achieving climate goals and sustainable development, bringing together global leaders, policymakers, and industry experts to discuss actionable strategies.

*Cited Source: Wikipedia – World Sustainable Development Summit (2025)*

**8. International Summit: Unlocking Investment Through PPP – Nicosia, Cyprus (March 26–27, 2025)**

Organized by Invest Cyprus, the World Association of Investment Promotion Agencies (WAIPA), and the World Association of PPP Units & Professionals (WAPPP), this summit convened policymakers, investors, and PPP professionals to discuss strategies for mobilizing private capital in infrastructure projects. Key discussions centered on regulatory reforms, risk mitigation, and fostering investor confidence in emerging markets.

*Cited Source: IMH Business Events (2025)*

**9. WAPPP Global Summit 2024 Held in Abu Dhabi: Advancing People-First PPPs**

The **World Association of PPP Units and Professionals (WAPPP)** hosted its **Global PPP Summit 2024** in **Abu Dhabi** in March 2024, bringing together leading public and private sector professionals, multilateral agencies, and development finance institutions to deliberate on the future of People-First PPPs. The summit centered on integrating resilience, sustainability, and inclusivity in PPP delivery models and emphasized alignment with the UN Sustainable Development Goals (SDGs). Key themes included innovative financing, blended capital strategies, and local capacity-building frameworks for PPP units globally. A standout feature was WAPPP's institutional collaboration with Nepal, where a Memorandum of Understanding (MoU) was signed with the **Nepalese Association of PPP Professionals and Practitioners (NAPPP)** during the Nepal Investment Summit 2024. This partnership is aimed at reinforcing capacity development, policy harmonization, and project bankability in Nepal's growing PPP ecosystem. WAPPP also unveiled a **Global PPP Knowledge Exchange Portal**, aimed at improving transparency and sharing best practices between countries pursuing transformative infrastructure through PPPs.

*Cited Source: WAPPP Official Reports (2024), NepalNews (2024)*

**10. UK Launches New 10-Year Infrastructure Strategy**

The UK government unveiled its £725 billion infrastructure strategy, with a notable shift toward renewed private sector involvement in projects like healthcare, education, and transport. It features a new agency, NISTA, and plans to reintroduce modernized PPP models (avoiding the criticized PFI scheme)

*Cited Source: Financial Times (2025)*

**11. Launch of 2025 Theme: "Mobilizing Blended Finance for PPPs"**

WAPPP unveiled its 2025 focus—blended finance—highlighting strategies to combine public, private, and concessional/philanthropic funding for PPPs in developing countries. The launch event in February featured technical sessions with Convergence Blended Finance and partners such as UNECA, EBRD, and AfDB.

*Cited Source: WAPPP website (2025)*

## SNIPPET PPP IN MANUFACTURING

| Category | Details |
|---|---|
| Key Sub-Sectors | - Agro-Based Manufacturing: Food processing, beverages, and bio-agriculture. |
| | - Industrial Goods: Cement, steel, and chemical production. |
| | - Consumer Goods: Textiles, leather, furniture, and FMCGs. |
| Current Investments | - Contribution to GDP: 4.6% in 2022/23. |
| | - 3,393 registered manufacturing industries. |
| | - 10 operational industrial districts employing over 18,000 workers. |
| Potential Projects | - Development of Special Economic Zones (SEZs) in key locations (e.g., Simara, Damak, Bhairahawa). |
| | - Industrial Districts expansion in all provinces. |
| | - Assembly plants for electronics and electric vehicles. |
| Key Investment Areas | - Export-Oriented Industries: Pharmaceuticals, textiles, carpets, and processed food. |
| | - Cement and Steel: Expansion to meet domestic and regional demands. |
| | - Greenfield Projects: Renewable energy-driven manufacturing. |
| Challenges | - Limited access to advanced technology and skilled labour. |
| | - Inadequate infrastructure for transport and logistics. |
| | - Dependence on imported raw materials for production. |
| Future Growth Areas | - Integration into global supply chains for industrial and consumer goods. |
| | - Export diversification with a focus on high-value products (e.g., pharmaceuticals, electronics). |
| | - Promotion of PPPs for industrial infrastructure and SEZ development. |
| Notable Initiatives | - Establishment of SEZs: 14 SEZs planned. 7 under development. |
| | - Nepal Furniture Market: Estimated investment of USD 2.31 billion. |
| | - Renewable energy integration in manufacturing processes. |

# Through PPP, we can mobilise Private Sector Investments in Public Infrastructure

**MR. SUSHIL GYEWALI,**
CEO, Investment Board Nepal

**Mr. Sushil Gyewali is CEO of Investment Board Nepal. Previously, he had served as the member of the National Planning Commission—apex planning body of the government. Prior to that, Gyewali served as the Chief Executive Officer of Nepal's National Reconstruction Authority (NRA). In this capacity, he was responsible for overseeing the reconstruction and rehabilitation efforts following the devastating earthquake of April 2015, which severely impacted the central hilly region of Nepal. Since his appointment on 16 August 2018, he successfully led and completed the government's reconstruction initiatives with significant and remarkable progress in reconstruction of the country. Before joining the NRA, Mr. Gyewali served as the Executive Director of the Town Development Fund (TDF) for nearly six years. During his tenure, he played a key role in increasing financial and technical assistance to municipalities for developing their infrastructure projects. Gyewali shared his insights with PPP Paradigms as follows:**

**Could you please briefly outline the mandate and institutional evolution of Investment Board Nepal?**

This institution is initiated and established with an objective to attract large scale investments, mainly foreign direct investment (FDI) in Infrastructure. Prior to that, the infrastructure financing was mainly confined on the government budget and bi-lateral and multi-lateral cooperation. The Department of Industry and Industrial Promotion Board under the Ministry of Industry, Commerce and Supplies was looking into the FDI approval, however that remain insignificant. Investment Board Nepal was envisioned as an instrument of attracting FDI. That was the need of that time, which created a sensation and conveyed message towards Nepal's initiative of reform in investment regime. In the initial days, the institution was quite new and it was grappling with the multiple challenges such as developing legal framework, project preparatory level works and fulfilling the human resource gap among others. Despite of these challenges, the institutional gradually taken forward some of the crucial projects such as Arun-3 in public private partnership; Hongshi Cement and Huaxin Cement in direct investment among others. Initial days were learning phase and it has taken an approach of learning and institutional strengthening. In 2019, the institutional reshaping was done with amendment of law. The Public Private Partnership and Investment Act, 2019 has envisioned to moblise the fund from both foreign and domestic private sector. Initially, there was a concept to develop a separate entity for PPP and policies/legal frameworks were designed accordingly. Later the government come to the conclusion to strengthen the Investment Board Nepal as the PPP and investment promotion agency. Despite of that, the institutional reform couldn't move forward. There was a huge gap of human resources to perform as per its mandate and hindered its functions as mandated by the law. For example, One Stop Service was defined core objective of IBN, however, it couldn't function properly though there were frequent attempts to make it functionable. The nature of OSS is not just bridging with other concerned entities; it has to provide a complete service from there. Moving forward, we were focused on creating enabling environment through amendments in laws, procedural and institutional reforms. Legal reform for the enabling environment envisions of amending concerned laws not only the Public Private Partnership and Investment Act, 2019. Some of the investment related laws were amended through ordinance just before the Nepal Investment Summit 2023 and further amendments were done very recently. From the recent amendments, OSS is equipped with staffs with authority. IBN is being strengthened with legal framework and expanded the scope over the period.

**How would you like to assess the achievements/ progress achieved by the institution since the establishment?**

The performance of the IBN can't be judged in isolation. The overall development process, investment regime affects this institution. Overall development pace remained moderate and the IBN couldn't make accelerated progress. There could be various reasons on it, which will be reviewed over the period of time. However, there were lots of potential, which remained untapped. Performance of such independent/autonomous entities depends on the how supportive are the ministries and departments. Concerned ministries request to take forward the projects in PPP and Investment Board Nepal's approach to ministries for this is equally important to gain the momentum. Secondly, there is lack of PPP project pipeline. Though we've developed pipeline of few projects, but most of the study are confined in the concept note phase. Thirdly, the developer can be urged for the detailed study through Unsolicited with Swiss Challenge and there is provision of law for this. However, it has not been implemented properly. On the brighter side, it has developed the standarized document of PROJECT DEVELOPMENT AGREEMENT based on the international best practice for the energy sector and some of the projects achieved completion and some are under construction such as Arun-3 and its cascade, Lower Arun Project. Operation of big cement manufacturers such as Hongshi Shivam Cement and Huaxin Cement have elevated competitiveness in the Nepali cement industry and enhance the quality of cement products.

**Could you elaborate on the sectors where PPP holds the greatest potential for scale up, especially in the current investment climate?**

The government has its vision to achieve the sector-specific targets, such as energy, industry, urban development, ICT and agriculture among others. Unless there would be a sectoral policy, strategy and regulatory frameworks and determined commitment of policy actors towards achieving targets, it can't function in isolation. With coordination among multi-agencies, we had to design the framework for the development of these sectors defining the role of PPP or direct private investment.

**Have you found clarity in the ministries regarding leveraging PPP or direct private investments?**

Immediately after assuming office, I've realized that there must be a clarity in ministries regarding leveraging PPP or direct private investment. Why we are trying to leverage PPP is fundamental to be understood in development framework. Through PPP we can mobilize private sector investments in public infrastructure considering the limited resources with the government. Ministries and IBN have clarity about nature of projects they enforce. Energy projects above 200 MW or projects above Rs. 6 billion investments are in the jurisdiction of IBN. Secondly, we engage private sector and execute PPP project for the efficiency. The IBN is formed to expedite the PPP and direct private investment projects for the timely completion and operation as the investors are more concerned to their return and the cumbersome bureaucratic process can't serve them efficiently. Efficiency, innovation and technology embedded with the foreign/domestic private investments and these are required to Nepal. IBN as special entity has been making its earnest efforts to attract investments by assuring to serve investors. When the ministries and other government agencies develop their capacity to execute large scale projects, IBN's jurisdiction can be defined to look into only mega projects by amending the law in the future. Except the energy sector, there are sorely lacks of large scale projects above Rs. 6 billion. Considering all these aspects, what we've discussed in the Board of IBN to bring the list of projects to be taken forward by the IBN under PPP and direct private investments. To demarcate the list of projects; Ministry of Finance, National Planning Commission and concerned ministries have to decide projects going to be implemented by the government, to be implemented in PPP or direct private sector investment. Following the instruction of Board, identification, prioritization and list of the project will be decided to from the mechanism convened by the Minister for Finance, Vice-Chairperson of the IBN, Ministers of the concerned ministry, Vice Chairperson of the National Planning Commission and CEO of the IBN. And this mechanism will recommend the projects to be implemented through the IBN.

**Investment is mainly concentrated in energy, why the other sectors are not in the limelight for leveraging PPP and direct private investment? What will IBN do to ensure predictable market and return on investments in other sectors?**

The Energy sector has been highly incentivized in different ways. The energy crisis prevention action plan of the government not only incentivized the energy projects but also guaranteed the revenue stream, which lured private investment. There was assurance of market and investors don't have to worry about selling their projects. Nepal Electricity Authority—the sole power off taker ensured purchase of electricity. Only the fund arrangement and construction capacity were sufficient for the development of energy projects. There have not been such generous policies in other sectors. In regard to forge partnership with private sector for the development of concerned other sectors were lacking of such policy atmosphere. Concerned ministries and IBN haven't exercised for such policy framework in the past. Recently, we are taking forward 9 different thematic areas where IBN is mandated to work on. To take it forward, project identification is one of the ways, second is study of the project (at least pre-feasibility study by IBN or concerned entity) and third one is unsolicited window. We'll accept the unsolicited proposals submitted by the potential investors. After calling for the unsolicited proposals, interests are lodged in ICT and urban sector projects. Based on these proposals, private sector themselves carry out the detailed studies utilising their new technologies, innovations, knowledges and capital. They better know the recent trends. Following the completion of study, we check the competitiveness through Swiss Challenge and take forward to the process. This has given a solution to diversify the projects mainly in industry, agriculture, ICT, urban sector and transport projects among others. The unsolicited route opened up new avenues. Within next 1-2 years we will have projects in all nine sectors.

**How is IBN leveraging bilateral and multilateral partnerships and stakeholder relations to bring in foreign investments and partnerships?**

I've talked about collaboration with government agencies, mainly ministries and subnational governments. We still have lack of clarity regarding the execution modality, such as Budhigandaki Hydel Project. There were multiple modalities under discussion. To avoid such inconsistencies, political consensus is must. To forge the political consensus, we've proposed the political advisory council, which can advise the IBN Board; where parliamentary party leaders of the major political parties representing in the parliament are members. Formation of the mechanism will help us to obtain consensus, advice and guidance from the major political parties. We've created a forum for the continuous dialogue forum with investors, which is led by the CEO of the IBN to understand their issues. Further, thematic committees can be formed by the Board as per the requirement if intensive discussion is required. The thematic committees will be led by the concerned minister based on the theme of project. Moreover, the platform for the dialogue with private sector, experts and development partners is led by the CEO of IBN. We've been openly discussing with the multilateral and bilateral development partners for the collaboration. In addition, investment promotion at the international level requires a continuous dialogue. Investors can avail first hand information from our diplomatic missions abroad before coming to Nepal. we'd a discussion with Nepali diplomatic mission abroad in a virtual manner in convenorship of the Ministry of Foreign Affairs. All the concerned mission will establish an economic diplomacy desk, which is mandated for the investment promotion. We've been fostering partnerships with investment promotion agencies and PPP agencies, namely, World Association of Investment Promotion Agencies (WAIPA) and World Association of PPP professionals and practitioners (WAPPP). All these approaches create an effective mechanism for coordination. For the local and provincial governments, we are thinking over inviting them in the Board or bringing them into the thematic committee based on the specific nature of the project.

**How is IBN addressing investors concerns related to the regulatory predictability, entry, exit and dividend repatriation among others?**

The issue of repatriation is no longer remain an issue. It has been well facilitated. However, there are concerns from the investors regarding hedging. Other concerns of the investors are mainly, local issues. For the smooth implementation, we must have to start the dialogue and orientation to local communities from the project preparatory phase. This avoids complexities of local issues. Recently, I visited to Muktinath Cable Car project site with IBN team and consulted with locals, Chief District Officers, representative of political parties and elected representatives of the local governments. The concerns of local can be addressed in a timely manner if we initiate discussions/dialogues with local communities and stakeholders.

**How does IBN coordinate with provincial and local governments to harmonise investment facilitation and project execution?**

There has been an important announcement through fiscal budget 2025/26 and also provisioned in the Act, that is to establish the PPP Directorate. The PPP Directorate at the IBN oversees the projects above Rs. 6 billion investments. IBN holds a mandate to promote the PPP culture by providing technical expertise to take forward projects below the threshold of Rs. 6 billion. Province and local governments should align their laws with PPP and Investment Act, 2019, which is umbrella act for PPP. We offer technical advisory services and support to the subnational government through developing model policies, laws, institutional framework and procedurals so that subnational government internalize it with their local context and implement following the endorsement from the provincial assembly and local assemblies. Further, we provide handholding support to them for the preparation of projects, procurement guidelines among others. Thus, there will be a compatible policy among the three tiers of the government. By the next fiscal year 2025/26, we will provide support to at least 50 projects at the local level and 7 province (one is each) that are identified by the concerned local government and provinces. Against this backdrop, private sector investment will be mobilised in infrastructure development and service sector under the PPP modality.

**There has been debate regarding separate entities for investment promotion and PPP or developing IBN as infrastructure authority. Which one do you consider?**

In fact, we're not considering both. IBN will function as both IPA (investment promotion agency) and national PPP agency. In the long term if we've numerous projects to be facilitated by the IBN, in that scenario, we can raise the threshold to Rs. 10 or Rs. 15 billion. Though our laws are dynamic but we aren't considering anything right now beyond the legal framework. In the long run, IBN will minimize project implementation load. However, IBN is determined to facilitate the project to its whole life-cycle. Based on the nature of projects, we established the sectoral desk by arranging adequate staffs. The staffs will be deployed from the ministries and both the ministries and IBN develop the expertise while facilitating projects for the entire project cycle. Thus, knowledge will be transferred to the concerned ministry as they will have institutional memory. After developing the expertise, IBN can handover projects for the further implementation and facilitation to the ministries (based on their proactiveness) following the financial closure in the long run, however, one stop service centre related entire facilitation will be done by the IBN. Further, the IBN will have own cadre up to under secretary level as the Act has mandated us to recruit own cadre, which will ensure the sustainability of the institution. Despite of that we request concerned ministries to deploy the staff to look into the thematic project desk. We provide equal treatment to its own cadre and staffs deployed from ministries. We implement result-based incentive model by developing specific KPIs (key performance indicators) for the performance evaluation.

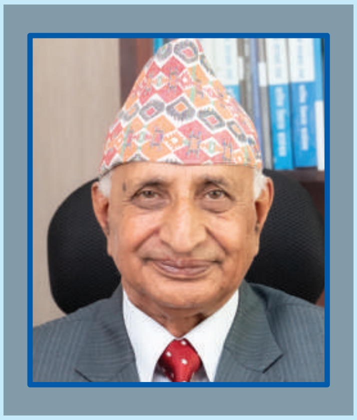
**Success of the IBN depends on the role of other actors to create an enabling environment for investment. How can we create such enabling environment for the investments?**

The entire government system should drive investment friendly environment. This is why the Board is formed under the chairmanship of the Right Hon'ble Prime Minister. In my opinion, all the ministries should establish PPP desk to take forward projects below Rs. 6 billion by the ministries themselves. This will gradually enhance capacity of the ministries to execute PPP distinctly from the government's regular works. Considering the government's limited capacity to spend resources for the development, we must have to promote PPP. If we see 16th five-year plan, which envisioned to mobilise Rs. 11,200 billion and the government will spend Rs only Rs. 3400 will be invested by the government and Rs. 7400 billion by the private sector. To mobilise the huge investment from the private sector, the government should have to provide enabling environment from their mechanism. IBN gives the strategic direction and provides support— technical, policy support and resolution of issues—to support the concerned ministries, department and subnational governments. This will create an ecosystem for taking forward the ecosystem. IBN provides strategic directions for making the projects commercially viable by packing all commercial incentives to developers and allow developers to invest for access road and basic facilities (with approval to deduct the amount from benefit sharing with the government after operation of projects). Moreover, we've to mobilise land acquisition fund for fast-tracking the land acquisition. Further, there would be separate desk for resolving and dealing into forest related affairs.

**Lastly, what is your message to the foreign investors?**

Nepal is attractive investment destination and evolving very promisingly due to its potential in different sectors including energy, agriculture, ICT, manufacturing and tourism among others. Nepal has high number of youth bulge, its demography, climate, hospitality and serene beauty and easier to work and ensure better return due to low production cost and high competitiveness. The government of Nepal values the investments and provide protection (through change in law and non-nationalization treatment) to it and offer effective facilitation so that investors can secure high profit. Through robust policy environment, legal and procedural reforms, we've improved the investment climate. The investment facilitation agency, IBN is given proper authority. The government has incentivized investments compared with regional competitors and peer economies. Recently, the first ever country rating is carried, which revealed Nepal is least risk destination for investment. Any investors wishing to invest in any sector can lodge unsolicited proposals to the IBN. Nepal is a market of not merely 30 million, there is potential to cater 3 billion population of India and China considering Nepal's geographic location. we've created the favorable environment for investment, in which investors can rely upon or keep trust. IBN is always ready to provide any needful support to our valued investors.

# Role of Local Governance in Infrastructure Development through Public Private Partnership



**Mr. Ganga Datta Awasthi, Hon'ble member of the National Planning Commission is a seasoned governance and development expert with over 40 years of experience in local governance, decentralization, development administration, and federalism institutionalization in Nepal. He currently serves as a member of the National Planning Commission. Mr. Awasthi holds a Master's in Development Administration from the University of Birmingham (UK), an MA in Economics, and a Bachelor of Law. His extensive career spans policy formulation, local-level planning and budgeting, fiscal decentralization, gender and social inclusion, social mobilization, and public financial management. He has also contributed significantly to the development and implementation of Public-Private Partnership (PPP) policies at the municipal and local government levels.**

## 1. Background and Concept of Public Private Partnership:

The role of local governments is placed of high importance for socio-economic development of the nation. Especially the local governments (Rural Municipalities and Urban Municipalities) are basically and easily accessible to local people and are heavily engaged in local development and service delivery as per local community priorities. So, they are mostly under public pressure to deliver services, carrying out local development activities in a responsive, responsible, accountable and transparent way as per local citizen's priority. Accordingly, the present constitution of Nepal has assigned exclusive rights and shared responsibilities to local level governments. The constitution of Nepal has also laid priority to achieve economic objectives by maximum utilization of available resources and means through the participation of cooperatives, public and private sector for sustainable development. The Constitution has also authorized the local level governments to enact law, make annual budget, make necessary decisions, formulate policies and plan, and implement them regarding the assignments related to the fiscal power mentioned in their respective authorized powers (Government of Nepal, 2015).

The Local Government Operation Act 2017 (LGOA) (Government of Nepal, 2017) has further elaborated roles and responsibilities as per constitutional provisions. However, most of the budget allocation of LGs are prioritized on physical infrastructure development. It is very difficult for local governments to respond to community demand due to limited resources for capital investments. Although Local governments (LGs) are endowed to raise their own source revenue through tax and non-tax sources. However, most LGs have very limited potential to raise their own source revenue due to limited economic activities at local level especially in rural areas. Recent trends in migration of people to search for better opportunities moved to urban areas, especially local urban municipalities are also under high pressure to manage their urban basic services to serve the people within their jurisdiction. Similarly, Local communities also play an important role in participating in the development initiatives undertaken by respective local government by contributing land, labor and cash.

The Public-Private Partnership and Investment Act, 2019 (Government of Nepal, 2019) is enacted to mobilize the national or international private sector investment in the areas of infrastructure development and service sector for enhancement of national economic prosperity and to manage public private partnership (PPP) projects systematically at all three levels of governance structures. This act is also supportive to create PPP investment friendly environment, strengthening fiscal and institutional governance, enhancing management capacity for operation and management of infrastructure projects, risk management, and provisions to attract private sector investors by providing financial and non-financial incentives and provisions to safeguard investors investments. Similarly, the Sixteenth Plan has also acknowledged the increased role of private and non-governmental sector by engaging heavily in the areas of production, supply, construction, service sector and foreign trade in recent years. Private and non-governmental sectors are developing partnerships by adopting a collaborative approach with government for enhancing economic activities of the state. Banking Institutions also play an important role in boosting up private sector for investments on feasible projects. The provincial and local government periodic plans also lay emphasis to mobilize private, nongovernmental and community partnerships in the areas of capital investments, service sector including community empowerment and partnership.

### *1.1 Concept and Objectives of Public Private Sector Partnership:*

Under the Public Private Sector, an agreement is conducted between the public and private sector for development, operation and management of public goods and services. Under this agreement the private sector agrees to invest to build, develop, operate and manage the infrastructures and service related activities by maintaining quality standards within stipulated timeline and risks and benefits are shared by both of the parties based on work performance and contractual agreement.

The objectives of PPP at local level: Ther main objective of the PPP is to facilitate easy access to infrastructure and goods services to the local citizens. The specific objectives are to utilize investment, knowledge and new innovative ideas as well as to increase efficiency and effectiveness in service delivery.

### *A. State of PPP in Local Governance:*

Most of the Local governments lack financial resources to finance capital investments especially in the areas of infrastructure development and service sector. The National Natural Resource and Fiscal Commission (NNRFC) is responsible to recommend the equalization and conditional grants to the Government of Nepal (GoN) and GoN also provides complementary and special grants on the recommendation of National |Planning Commission(NPC) on the basis of approved procedures by GoN. The resources are also available there at local and provincial level through own source revenue as well as through revenue sharing mechanisms provisioned in the constitution and Inter Governmental Financial Management Act, 2017 (IGFMA) (Government of Nepal, 2017). Also, Government of Nepal has not yet issued any parameters for LG's and provinces for borrowing to finance the investment projects at respective levels. However, the Town Development Fund (TDF) is financing LGs, especially to Urban Municipalities for development of capital investment projects and service facilities. Mostly these funds encourage to mobilize private sector for creation of these facilities. This initiative is also not fully meeting the demands of all the municipalities. The Rural Municipalities are unable to access to TDF resources. Somehow this type of support also demands a special Bank or Funding agency to finance the provincial and Local Governments to meet the financial gap at the subnational level. Due to lack of investment resources, they are unable to enhance production and productivity from farm, non-farm and service sectors initiatives to meet the increased local citizen's priorities. It is a good opportunity for Local Governments (LGs) to contextualize the related provisions of the federal level policies and legal arrangements related to PPP at local level to attract private sector investments within their jurisdiction.

Most of the Local Governments have not yet developed their PPP policy and Act to attract and safeguard private sector investments within their jurisdiction. It is a good opportunity for them as there is a conducive environment created by the constitution, national policies and federal Acts. The Local Governments may customize and adapt to localize legal and institutional infrastructure created by the Federal Government. This will create a good opportunity for local governments to address the local priorities, to make local government credible for mobilizing private sector investment and will contribute to boosting confidence of private sector to motivate them for investments at local area. It is also supportive to create a legal base to secure local investments and incentives to investors in the areas of infrastructure and service sector development and management. The legal base at the local level will support to create good governance and will contribute to transforming strategic, structural and system-based development to enhance capacity of local governments.

## 2. The Potential Areas for Investments under PPP are as Follow:

The LGOA has identified the following key areas in social, economic and environment and infrastructure sectors which are crucial for developing and service management:

*2.1 Basis for Project Selection:*

The following are main basis for project selection under PPP:

1. The projects /programs must be identified as the priority sector
2. Possible to invest in such projects/programs by respective LGs/Private sector
3. Feasible in terms of investment, cost or expenditure
4. The expected returns must be guaranteed as continuous source of income
5. Maximum use of local resources
6. Feasible in terms of economic, social and environmental
7. May be beneficial to adjoining LGs as well
8. Have possibility of expansion
9. The private sector is capable to mitigate the possible risks

*2.2 Role demarcation of Public and Private sectors: Basic principles*

| Infrastructure Development | Business, Economic Services and Commercial Activities | Tourism |
|---|---|---|
| ▪ Local Road, Agriculture Road, bridges<br>▪ Water mills,<br>▪ Small hydro projects and transmission lines<br>▪ Public transport<br>▪ Infrastructures related to basic urban services<br>▪ Cable car and ropeway<br>▪ City Bus | ▪ Industrial Village<br>▪ Micro, small and cottage industries<br>▪ Entrepreneurship development and vocational education promotion<br>▪ Information communication (internet, software development and Artificial Intelligence)<br>▪ Hospital and basic health facilities development and maintenance<br>▪ Agriculture and \|Livestock farm Development and operation<br>▪ Collection of local Agriculture products and Marketing<br>▪ Herbal collection, processing and sales<br>▪ Organic Farming, agro- forestry development, biogas and solar energy<br>▪ Operation and management of local guest houses<br>▪ Cold store operation and management<br>▪ Solid waste management and compost manure production | ▪ Cultural and religious heritage infra-structure Development and rehabilita-tion<br>▪ Home stay promotion, guest houses and non-star hotel standardization<br>▪ Trekking, rafting, adventure tourism spot development and promotion |

*2.3 Factors to be considered while selecting the local level projects under PPP:*

1. The project requires to be completed within the given timeline
2. The capacity of the private sector, resource mobilization and availability of technology and willpower of the potential project beneficiary must be taken into consideration
3. The private sector is competent enough to take the burden of project design, investment, construction, operation and maintenance
4. Full acceptance and commitment of potential investors
5. The beneficiaries are also committed to pay the user charges
6. The lending agency must be included in their scope of priority lending
7. Expected risks and bearing capacity of the potential project venture
8. Prior determination of sharing of project benefit and risks
9. Possibilities of employment opportunities for residents during the construction period and after the completion of the project at the local level

*2.4 Projects discouraged under PPP:*

1. The projects that cannot be implemented which are not able to bear the fiscal, technical or operational risks
2. Commercialization of public sector entity by creating ventures of public sector ownership and only the private sector activities get the profits out of created project
3. Possibility of negative effect by the venture on the public responsibility of the respective LG sector
4. Privatization of public property and liability
5. The project against national interest and security
6. The project that directly affects environmental conservation, human rights, inclusion and public health
7. The possibility of the project that may receive resources like grant, donation or gifts
8. If the projects that are enrolled as public sector investment only

*2.5 PPP prerequisites for Private Sector:*

1. The private sector must be registered under the prevailing law as company, business enterprise, bank and financial institution
2. Representative association of private sector industrial enterprise
3. Nongovernmental organizations/Academy registered under prevailing law having the objective of business motive
4. Cooperatives registered under cooperative law
5. Registered community-based organization and users' organization
6. Entrepreneur or professional person While contracting natural person under PPP the following conditions must be fulfilled.
   a. If his/her property is used for PPP, his/her family members' consent is required and submitted
   b. The property is not kept as mortgage in any bank or financial institution
   c. The letter of Land Administration Office is required for clearance

| Public Sector | Private sector | Obligation of both Parties |
|---|---|---|
| Determine the quality standard of services | Delivery of services adopting new innovative technologies or design | Contractual agreement based on outcome and performance |
| All Legal related risks | Commercial risks | Contract should be of long term and comparatively cost, and benefit is often high and value for money is based on the returns |
| Benefitted by having access to new innovative technologies | High returns based on competition | |
| Cost effectiveness in service delivery | Maintenance responsibility | Partnership among public/private sectors for nation building |
| Regulation as per law and agreed provisions | Investment and management in innovative infrastructures and service areas | |

*2.6 PPP types/ methods applicable as per the nature of the project*

1. Implementation of any type of infrastructure projects
2. Use of public property or public service management

*2.7 PPP contractual methods applicable under Local Governance*

a. Build and transfer
b. Build, own, operate and transfer

c. Design, develop, operate and transfer
d. Lease, build, operate and transfer
e. Rehab, operate and transfer
f. Management contract for use of public property
g. Management contract for public services, or

Any other mode arranged by respective LGs (Government of Nepal, 2019)

While implementing the agreement of the project phase such as construction, ownership, operation, rehabilitation, maintenance or expansion under PPP, the respective LG may apply any of the methods given above in one or more than one method.

**3. Alternatives, Responsibilities and Timeline under PPP:**

has spelled out the revenue raising and fiscal transfer system among the three levels of government (Government of Nepal, 2017). The Public Private Partnership and Investment Act also has provisioned to contextualize PPP policy and legal base by enacting at the local level as well. As per the provision of the Federal, provincial and local level (coordination and interrelation) Act 2077(2020) has demarcated the roles and responsibilities of each level of Government and institutional mechanisms for creating better understanding, cooperation, coordination among the three levels of Government (Government of Nepal, 2020). As PPP is related with shared responsibility of all three levels of governments and it demands cooperation, coordination of all three levels and private sector agencies to play act as per their comparative advantages. This type of intergovernmental relation will create opportunities for Local Governments to

| PPP Contract Instrument | Average Contract Term | Provides the Service or the Management | Provides the Working Capital | Receives the Net Income or Covers Net Loss | Provides Long-Term Finance | Legally owns the Assets | Provides Sectoral Planning & Regulates Services |
|---|---|---|---|---|---|---|---|
| Corporatization & Private Market Finance | In perpetuity | Public | Pub./Priv. | Public | Pub./Priv. | Public | Public |
| Service Contract | 2-3 years | Private | Public | Public | Public | Public | Public |
| Management Contract | 2-5 years | Private | Public | Public | Public | Public | Public |
| Lease/Affermage | 7-15 years | Private | Private | Private | Public | Public | Public |
| BOT/PFI | 20 - 30+ years | Private | Private | Private | Private | Public | Public |
| BOO | 20 - 30+ years | Private | Private | Private | Private | Private | Public |
| Concession | 20 - 30+ years | Private | Private | Private | Private | Public | Public |
| Divestiture & Asset Sales | In perpetuity | Private | Private | Private | Private | Private | Public |

*Source: Power Point presentation (Mahat, 2022)*

**4. Opportunities and challenges to Implement PPP:**

*4.1 Opportunities:*

The constitution of Nepal has spelled out exclusive and concurrent responsibilities of the local governments. The constitution has also given the opportunity to build partnership among the three main actors such as cooperatives, public and private sector to mobilize their potentials and resources for sustainable development (Halesi Tuwachung Municipality, 2025). The LGOA, has further detailed out the roles and responsibilities of the Local governments. Similarly, the Inter-governmental financial management act 2017(IGFMA) mobilize investment for enhancement of production and productivity as well as economic activity, creating physical infrastructure facilities and service sector entrepreneurship to create employment generation and income of the local people. The urban population is increasing and about 60 percent population resides in municipal areas. Huge remittances is flowing within the country and there is an opportunity to invest this huge amount in the productive sector. Similarly Banking and financial institutions including infrastructure Bank are exploring their over-deposited cash liquidity in cheaper rate of interest in business promotion and enterprise development. The private sector has experience and expertise and knowledge to build and operate PPP projects. The PPP policies and legal atmosphere are also conducive for International and national investments.

*4.2 Challenges:*

It is really a challenge for local governments to create an investment friendly environment at the local level to build confidence of investors. The LGs lack technical and institutional capacity to manage PPP project effectively at local level. The local Governments have yet to enact their PPP policy, Acts and laws and set standards to create an investment friendly climate within their jurisdictions. They also are facing resource constraints. The federal governments have also required to create legal base and institutional arrangements for public borrowings to invest LGs in capital investments. The LGs are also facing regulatory constraints and bureaucratic procedures also hurdles for them. It is really challenging to convert LGs as bankable and credit worthy so that private sector can easily invest their resources in innovative projects to serve the people at local level. They have yet to enlist the projects where private sector can invest their resources and potentials. Single door delivery is also equally important for multilevel and multi actors to play easily for investments. For this multi-level stakeholders and inter agency coordination, collaboration and cooperation is important for sustainable development at local level. Similarly, use of ICT is also equally important for the development of close ties among stakeholders. The mobilization of resources from local community to build community partnership as well.

**5. Role of National Planning Commission for PPP promotion in Local development:**

1. Framing macro level policies for enhancement of public and private sector resources
2. Develop and circulate draft model PPP policy/Act/By law guidelines for Local governments and provide technical support for framing the policies and relevant laws with cooperation and collaboration of Ministry of Federal Affairs General Administration (MoFAGA) and respective LGs Associations such as Municipal Association Of Nepal (MUAN) National Association of Rural Municipalities in Nepal (NARMIN) and Association of District Coordination Committees of Nepal(ADCCN) [7].
3. Facilitate intergovernmental relations
4. Supportive to frame the policies for private sector mobilization
5. Supportive to facilitate private sector and banking and financing institutions for investment
6. Policy formulation for complementary and special grant funds to promote private sector involvement for quality infrastructure development and commercialization of farm and off-farm-based industries

. Monitor evaluation of the PPP projects

**6. Way forward and role of LGs for boosting confidence in PPP.**

The local governments must play a crucial role in framing PPP-related policies and laws. Federal level agencies such as MoFAGA (Federation of Nepalese chamber of commerce and Industries (FNCCI) and related Development Partners (DPs) may support framing favorable policies and mobilization of technical support and private sector resources and they also can identify sources and potential of local revenue mobilization and framing training and piloting the programs for wider replication. The federal government especially Ministry of finance and Nepal Rastra Bank also can facilitate by formulating borrowing policy for LGs and has to take steps to create a special bank in which the present Town Development Fund can also be merged to finance potential local governments. Local governments should be aware of mobilizing private sector resources on potential areas by creating inventory of the feasible projects for private sector investment. The respective LGs also may establish a PPP committee in which Private sector, Bank and Financial Institutions, cooperative and community representatives may be represented and the expert of PPP may also be invited. The roles and responsibilities of such a committee may be defined. That committee should be made responsible to steer and mobilize public and private sector resources and prepare a roster of the feasible projects. LGs have not to depend on only intergovernmental transfers they have also to explore and take initiative to mobilize local own source revenues from tax and non-tax bases and explore borrowing channels as well to develop autonomy and self-reliant local government.

**References**

Government of Nepal. (2015). The Constitution of Nepal. Kathmandu: Ministry of Law, Justice and Parliamentary Affairs, Law Book Management Committee.

Government of Nepal. (2017). Intergovernmental Fiscal Management Act, 2017. Kathmandu : Government of Nepal.

Government of Nepal. (2017). Local Governance Act, 2073 (2017). Kathmandu : Government of Nepal.

Government of Nepal. (2019). Public Private Partnership and Investment Act, 2019. Kathmandu: Government of Nepal.

Government of Nepal. (2020). Federal, Provincial, and Local Level (Coordination and Interrelation) Act, 2020. Kathmandu : Government of Nepal.

Halesi Tuwachung Municipality. (2025). Public Private Partnership Policy. Halesi Tuwachung Municipality. Halesi Tuwachung : Halesi Tuwachung Municipality.

Mahat, M. S. (2022). सार्वजनिक निजी साझेदारी (SANISA) अवधारणा: सानिसा अन्तर्गत स्थानीय तहका आयोजना कार्यान्वयनमा देखिएका अवसर तथा चुनौतिहरू , प्रभावकारी स्थानीय सेवा प्रवाहका लागि सार्वजनिक निजी साझेदारी. Economic Policy Incubator, Nepal Urban Resilience Project. Retrieved February 12, 2025, from https://www.slideshare.net/slideshow/ppp-concept-opportunities-and-challenges-at-local-level-maniram-singh-mahat-pptx/272920764

## SNIPPET PPP IN AGRICULTURE

| Category | Details |
|---|---|
| **Key Products** | - High-value crops: Ginger, turmeric, cardamom, tea, coffee, and large cardamom.<br>- Cash crops: Sugarcane, tobacco, jute, and oilseeds.<br>- Dairy and livestock products: Milk, meat, poultry, fish.<br>- Medicinal and aromatic plants (MAPs): Yarsagumba, chiraito, jatamansi, essential oils. |
| **Key Projects** | - Agriculture Development Strategy (ADS): NPR 50 billion annually for 10 years.<br>- Irrigation Expansion Projects: NPR 2.6 billion for 1.8 million hectares in Terai.<br>- Agro-Processing and Storage Projects: NPR 10 billion for cold storage and processing hubs.<br>- Livestock and Fisheries Development: NPR 15 billion for commercial farms and processing.<br>- Integrated Agro-Processing Zones: NPR 10 billion for centralized agro-industrial zones. |
| **Current Investments** | - NPR 50 billion annually under ADS.<br>- Ongoing investments in irrigation and cold storage infrastructure.<br>- Expansion of export-focused value chains for spices, tea, and coffee. |
| **Future Opportunities** | - Expansion of irrigation systems and electrified lift irrigation in hills and mid-hills.<br>- Investments in MAP processing hubs and herbal medicine production for global markets.<br>- Establishing export-oriented agro-industrial parks for food processing and certification.<br>- Livestock-focused initiatives: Modern dairy farms, meat processing, and aquaculture hubs. |
| **Challenges** | - Dependency on monsoon for irrigation.<br>- Limited mechanization and poor access to global markets.<br>- Post-harvest losses due to inadequate storage and processing facilities. |
| **Potential Growth Areas** | - Contract farming models for high-value crops.<br>- Climate-smart agriculture practices to increase resilience.<br>- Private sector collaboration for mechanization and export enhancement. |

PUBLIC PRIVATE PARTNERSHIPS

# Private sector perspective in Energy Projects

**Mr. Ganesh Karki is a distinguished businessperson, entrepreneur, and a prominent leader in Nepal's hydropower sector, currently serving as President of the Independent Power Producers Association of Nepal (IPPAN) and Honorary Consul of Mauritius. With over a decade of experience, he has led numerous hydropower projects, including Upper Solu Khola (19.8 MW), Hewa Khola A (10 MW), and Super Khudi (26.5 MW). He is involved in companies like BG Pvt. Ltd., Baibhav Power Nepal Pvt. Ltd., Cream Hydel Pvt. Ltd., and many more. Actively engaged as respected figure in various associations including the Nepal Chamber of Commerce's Energy Committee, the Nepal Hydropower Association and Nepal Mumbai Chamber of Commerce, Mr. Karki has received honors including the Jana Sewa Shree from the President of Nepal. His work reflects a commitment to energy independence, economic resilience, and sustainable development, making him a key figure in Nepal's energy and business landscape.**

It has been more than three decades since independent power producers entered Nepal's energy sector. After the establishment of multi-party democracy, the power was opened to the private sector for investment and production after the power act came into force in 2049 BS. The private sector started commercial production in Nepal in 2057 BS. From the same year, an umbrella organization of energy producers, Nepal (IPPAN) was established to raise the issues of the private sector, advocate for the formulation of investment-friendly policy laws and to protect and promote private sector investors.

With more than 600 power generating companies as its members, IPPAN's main objective is to advocate for policy arrangements that are easier for energy producers. Whatever policies, rules, guidelines, procedures and other policy tools are available to regulate the energy sector, IPPAN has been advocating, is still advocating for it and will continue to advocate for it in the days to come.

### Energy Challenges in Energy Generation

In recent times, many projects have not been able to generate the prescribed amount of electricity due to the decrease in the water level in the rivers due to climate change. The PPA agreement signed with The Nepal Electricity Authority (NEA) states that if the electricity generation schedule of almost all the events smaller than 10 MW of the private sector is affected, then there was a lot of lobbying to cancel the hydrology penalty. Later, the Electricity Regulatory Commission came up with a policy prohibiting hydrology penalties on projects smaller than 10 MW and it has given relief too many projects. The financial condition of the projects was becoming problematic due to the situation of paying fines. There was a situation to pay the interest by selling the house and farm.

Now this problem has been seen not only in small but also in big projects. Not only in the private sector but also in government projects. The weather changed, there was no rain, and there was no snow, the water in the stream decreased. Electricity generation dropped to one-third. In such a situation, the provision of paying hydrology fine has to be removed even in projects above 10 MW.

There is also a need to amend the provisions of PPA with the Electricity Authority. It has been stated that the deadline for starting commercial power generation (RCOD) can be extended only if the construction of a project is delayed due to an out-of-control situation. But the situation beyond control is focused only on the situation where floods and landslides have obstructed the construction. While disruptions in the import of explosives to date have delayed the construction of the project, the Russian-Ukraine or Israel-Palestine War has also delayed the construction of the project. The construction of the project has also been delayed due to protests by the locals. The forest ministry has not given permission to cut trees, but there has been a delay in the construction of the project due to exemption of land ceiling and delay in land acquisition. There have been instances of many projects being delayed even when the loan amount from the bank did not come on time. The AUTHORITY does not consider the delay due to these reasons as force majeure and they start imposing fines for not completing the project on time. Considering these things as force majeure, the private sector has been raising its voice that the RCOD period of all under-construction projects should be extended by at least two years.

Similarly, the government has given license to the private sector for hydropower projects for 35 years, which should be 50 years as per the Electricity Act, 2049 BS. A total of 31 projects were damaged due to floods in July last year, while 51 projects were damaged due to floods in July and September. More than a dozen of these projects were closed for nearly a year. The promoter had to take additional loan to pay the bank's interest and repair the project. But considering it as force majeure, the license should be extended for the period of closure. The private sector has also been raising its voice for this.

In the past, customs exemption was also available on maintenance, but this exemption has been removed for the last two years, due to which the flood-affected projects could not bring goods at customs exemption. IPPAN has repeatedly appealed to the Prime Minister, Finance Minister and Energy Minister for this, but no decision has been taken in this regard.

The electricity bill registered in the parliament should not be regressive as in 2049 BS, it should be wider and should involve the private sector in transmission, distribution and trade along with production. The private sector is now raising its voice in this regard. A law should be enacted to protect billions of rupees of investment in the energy sector. According to the bill, if the government wants, hundreds of projects in the hands of the private sector can be directly taken under its control and handed over to themselves or foreigners. This is wrong. Such a bill does not attract the private sector, it creates a situation for the promoters engaged in this sector to flee.

**Risks and Challenges**

IPPAN has also been cautioning its members about the risks to be borne in the future while making the project now. Promoters who have entered this sector by looking at a policy brought by the government in the past are falling as a prey to the policy changes that occur when the government changes quickly. Policies change only when the ministers in the government and those who lead the bureaucracy get angry. The entire region will have to bear the brunt of this. The facilities provided by the Electricity Act, 2049 are also being gradually reduced. The morale of the private sector cannot be high in such policy instability. If the hydropower project is to be constructed by looking at the laws and facilities of the construction of the project, on the basis of this, the private sector invests by analyzing the profit and loss, but if that changes, it will have to bear the direct brunt of it. There is still a huge fluctuation in the interest rate on bank loans, which has also pushed the project construction towards instability. Although the construction will not be completed at the stipulated cost, the PPA rate of the Electricity Authority has remained stable for 25 years. Due to the increased cost of the project, expensive and increasing cost of maintenance, the stable PPA rate has made it difficult for the private sector and millions of people involved in it to provide the return of the share investment.

Projects are also being affected by the risk of climate change, so the project should plan in the beginning. Floods and landslides are increasing the damage every year. Not only structural damage, but human damage is also increasing. To avoid this, all the promoters should move forward from installing early warning system to making the structures of the project a little away from the surface of the river and in a safe place accordingly. Structures should not be constructed in such a way that they are affected by floods and landslides in the hope of producing more. Recent floods and landslides have taught a lesson that if the structure is protected from floods and landslides, the regular production it provides will benefit more than that.

**Private Sector Network and Global Investment**

The network of independent power producers in Nepal is gradually increasing. When there was no experience in the early days of entering the private sector in energy production, some of the leading promoters deliberately stepped into this field, fought, read and learned to take the sector forward.

Starting with 4-5 promoters, more than 600 companies have been building and operating energy projects in the region over the past three decades. Some foreign companies have also been made partners in this project. Some projects are owned by 100 percent foreign companies. In recent times, the world's largest financial institutions such as IFC, Korean Exim Bank, ACN Infrastructure Investment Bank, Asian Development Bank, etc. have invested in Nepal's hydropower projects. The 216 MW Upper Trishuli-1 hydropower project has received loan investment from the World Bank Group to ACN and the European Bank.

Indian company SJVN is constructing 900 MW Arun III. Indian investment is also expected to come in Upper Karnali and West Seti. This has given a message that there is a friendly investment environment in Nepal. For this reason, an environment has been created for the private sector to bring foreign investment in other projects. However, foreign investment has not come to Nepal.

The private sector is also taking initiatives to bring investment through various bonds including foreign climate bonds, green bonds, and pension bonds. There should be some initiative from the government for this.

**Government and private sector**

Whatever targets the government has set for power generation, the private sector has been continuously cooperating in achieving all those targets. The contribution of the private sector in achieving the goal is increasing. The presence of private sector is more than 80 percent of the target of electricity generation. Nepal's total installed capacity is around 3,600 MW and 2,900 MW of electricity is being generated with the participation of the private sector. In this, the government itself has constructed two projects of 22 MW Chilime, 456 MW Upper Tamakoshi, 111 MW Rasuwagadhi, 102 MW Madhya Bhotekoshi and 57 MW Sanjen under public-private partnership (PPP) model. Big projects like 1061 MW Upper Arun are also going to be taken up on PPP model. The general public has been made shareholders in these projects, but the private sector has not been directly involved in Nepal. It is dominated by government agencies. The reason for this is that the private sector should not be directly involved. The government needs to move forward by analyzing the leaps and experience gained by the private sector in power generation.

Whether it is to meet the government's goal of electrification or to increase the role of energy in sustainable economic development by ending load shedding, the private sector has a strong presence. While the government is currently exporting electricity to India and Bangladesh, electricity from private sector projects is also being exported there. As a result, the private sector has been very supportive in achieving almost every target taken by the government. However, the project construction framework has not been prepared with the direct participation of private sector entrepreneurs.

**PPP and private sector**

The PPP model is very important in a country like Nepal which is moving towards a development-oriented country. It is also essential to move the country forward on the path of economic prosperity through domestic capital circulation in a country where development expenditure and investable funds are low. At present, the government has put forward the Energy Development Roadmap-2081 with a target of generating an additional 25,000 MW within 10 years. About $46.5 billion is required for this. Out of this, 90 percent of the cost will be provided by the private sector, non-resident Nepali, foreign investment and banks and financial institutions. To achieve this goal, the project needs to be taken forward on PPP model. Not only this, another $1.2 billion required for the construction of transmission lines and distribution lines. Both the government and the private sector need to move forward together as it is difficult for the Government of Nepal to invest a lot of these investing amount in the next decade. The government cannot immediately provide all the budget for the construction of big projects.

Even now, The Nepal Electricity Authority (NEA) has to import about 1,000 MW in winter, the main reason for this is that the reservoir-based projects are not being built. The government has made plans and targets for the construction of many reservoir-based projects, but it has not been implemented. It is possible to build a reservoir-based project if the government facilitates it and invests in the PPP model with equitable benefits through some low supply fund (VGF) and the rest of the private sector invests. With the support of the government, the private sector can build projects up to 1,000 MW with domestic investment. For this, Nepali companies with good experience in energy projects should be given investment opportunities.

An environment should be created to invest in PPP model not only in production but also in distribution, transmission, trade, etc. At present, the Ministry of Energy, Water Resources and Irrigation has forwarded this pattern on one transmission line, but many other transmission line projects have financial management problems. It is difficult to proceed with the construction of the transmission line if foreign aid is not received, while the construction work of the project has been hampered due to the withdrawal of some foreign investments. Although some projects are in a state of production, the instability of the construction of transmission lines has resulted in wastage of electricity. If the transmission line is constructed by involving the private companies of the area where the project is being constructed, it can solve many problems. For this, the government will move forward for policy facilitation as well as protection of investment and provide necessary concessions, VGF etc. after analyzing the fair returns and examining whether the framework for the private sector to invest in the project is appropriate in the present situation. In the past, the government agencies seen in the bill will move fast in the construction of energy projects and the provision of discrimination between private and government agencies will create a situation where large investments will not be raised in energy development. The government and the private sector should also make policy arrangements in the electricity bill to move forward together. Many problems can be solved if the government goes ahead with the construction of the project with less role and the private sector more.

**IPPAN's upcoming role**

IPPAN was born after the entry of the private sector into energy production. However, IPPAN is now playing a leading role in the capacity building of the private sector to fighting the rights battle with the government. It is lobbying for the rights of all the promoters under one umbrella. In the last three decades, the private sector has been able to produce a lot of products by taking huge personal risks, but most of them are river flow based (ROR) projects. At present, semi-reservoir and reservoir projects will have to be constructed to balance demand and supply and also facilitate electricity trade. For this, IPPAN will have to advocate with the government on policy issues such as procedural easing, exemptions and provision of VGF to advance and facilitate the PPP framework. Not only this, IPPAN should encourage all the private sector to build big projects. The private sector is ready for this, but now the government has prepared a concrete framework for this. In almost every public event, government officials say that it is impossible to achieve the goal without the participation of the private sector, but they are not able to attract through the creation of a clear framework to move forward jointly. IPPAN plays its role in moving forward on the PPP model for energy development, but the government also needs to give special priority to it.

CATALYZING CHANGE

# The Role of Investment Promotion Agencies in Advancing SDG aligned Bankable Projects

**Mr. Dushyant Thakor brings over 25 years of experience in investment promotion, facilitation, ICT, and global standards. At WAIPA, he is driven by the belief in 'Building the future. Promote Investments for Good,' championing investment as a catalyst for climate action, sustainability, and inclusive global development. Dushyant is currently leading capacity-building and technical advisory initiatives for investment promotion agencies (IPAs) across various countries globally. He played a key role in the launch of the World Investment for Development Alliance (WIDA), a collaboration of 10 leading global multilaterals. He was a founding member of Invest India and played a key role in establishing gold-standard IPAs across Indian states. He was also part of the core team behind national initiatives such as Make in India, the National Industrial GIS System, and the National Single Window System in India. He has also held leadership roles in ICT and standards bodies. Dushyant holds master's degrees from the Indian Institute of Foreign Trade and the University of Delhi, along with an Advanced FDI certification from the University of Cambridge**

With 2030 fast approaching, it's increasingly clear that many countries—particularly Least Developed Countries (LDCs) and developing economies—are falling behind on both their climate and broader sustainability targets under the Paris Agreement and the Sustainable Development Goals (SDGs). Environmental degradation, biodiversity loss, and mounting inequalities are worsening, even as climate-induced disasters—floods, droughts, wildfires, and rising sea levels—become more frequent and intense. The impacts are no longer future projections—they are unfolding now, disrupting economies, displacing populations, and threatening food and water security. Without urgent, scaled-up action, the window to meet 2030 goals is rapidly closing.

The transition to a low-carbon, climate-resilient, and sustainable economy will require trillions of dollars annually in new investment. Public financing alone—especially in fiscally constrained developing nations—cannot match this scale. Governments will need to work in close partnership with the private sector to mobilize capital at speed and scale. Multilateral development banks (MDBs), bilateral donor agencies, pension funds, sustainability-focused blended finance platforms, and climate-specific vehicles like the Green Climate Fund are all critical sources. But mobilizing these funds requires confidence in project pipelines, transparency, and predictable regulatory frameworks.

Ironically, while global financial institutions and climate funds have increased their climate finance commitments, many of them report a shortage of well-structured, investment-ready, and bankable projects. The problem is not a lack of ideas—but the absence of technical preparation, de-risking, and coordination to convert concepts into viable investments. This mismatch between capital availability and project readiness has become one of the most pressing bottlenecks in sustainable finance, especially in countries where institutional capacities are still evolving.

This is where Investment Promotion Agencies (IPAs) can play a transformative role. In nearly 20% of countries, IPAs are directly mandated to lead PPP development, and in many more, they are the de facto promoters of large-scale infrastructure and public-private partnership initiatives. Their traditional role in investor outreach and facilitation now expands into a more strategic one: that of a consolidator and curator of climate- and SDG-aligned projects. By coordinating across ministries, validating project readiness, and acting as a trusted interface for financiers, IPAs are uniquely placed to unlock the next wave of climate and sustainability investments. They are not only promoters—but system orchestrators standing at the frontlines of global climate action.

Around the world, Investment Promotion Agencies (IPAs) are repositioning themselves as essential actors in the climate and sustainability agenda. More than 50 IPAs have now embedded Sustainable Development Goals (SDGs) into their investment strategies—making sustainability a core element of their value proposition. Many also serve as the first-line responders for foreign investors seeking guidance on national climate priorities and policies, helping decode regulations and identify entry points for green investment. Increasingly, IPAs are aligning their screening criteria with frameworks like the EU Taxonomy and international ESG standards, ensuring projects meet global expectations.

One sector where IPAs have shown remarkable dynamism is renewable energy. From countries in Africa such as Namibia, Uganda, and Mauritius to those in Latin America and the Caribbean (LAC) like the Dominican Republic, Peru, and Costa Rica, there are exemplary cases of investment promotion driving renewable energy transformation. Whether it's billion-dollar wind energy projects, green hydrogen infrastructure, or island communities achieving 100% solar power, IPAs are proving instrumental in shaping national energy transitions.

Beyond renewable energy, we are also witnessing SDG-aligned investments across diverse sectors. From education projects in Comoros, data center development in the Democratic Republic of Congo, life sciences hubs in South Korea, to waste-to-protein conversion initiatives in Costa Rica, IPAs are helping catalyze projects that deliver directly on SDG targets. But the pace and scale remain insufficient—what's needed is hundreds of such projects in every country, backed by a deliberate pipeline strategy, policy coordination, and investment facilitation.

Beyond individual projects, IPAs are also emerging as key actors in strengthening bankability. Many now maintain curated project lists that meet essential technical, financial, and regulatory benchmarks. Through partnerships with Development Finance Institutions (DFIs) and climate-focused platforms, they help refine early-stage concepts into investment-grade proposals. Agencies offer pre-feasibility showcases, host investor roundtables, and conduct international roadshows to ensure visibility and market alignment. Their role extends to Public-Private Partnerships (PPPs) as well: in many countries, IPAs are either mandated to oversee PPPs or collaborate closely with PPP units. They promote pipelines, clarify government guarantees, and support bid processes by engaging legal and transaction advisors. This dual role—of consolidator and connector—makes them uniquely suited to close the gap between public ambition and private capital.

Nepal stands as a country with significant untapped potential. The successful structuring and advancement of large hydropower projects like Arun III and Upper Karnali, led by Investment Board Nepal (IBN), demonstrate how a committed IPA with project consolidation capacity can unlock transformative investments. If the same rigor, coordination, and investment facilitation were applied across other strategic sectors—such as sustainable urban infrastructure, waste-to-energy, eco-tourism, and agriculture—the resulting impact could be profound.

Nepal, as a committed signatory to the 2030 Agenda, has taken important steps to mainstream the SDGs into national planning frameworks. As the country advances its development ambitions, there is an opportunity to accelerate momentum across key sectors such as energy, infrastructure, and climate resilience. Public financing, while foundational, can be significantly complemented through Public-Private Partnerships (PPPs) to meet investment needs. In this journey, Investment Promotion Agencies (IPAs) can serve as key enablers by curating bankable, SDG-aligned projects, fostering inter-agency collaboration, and facilitating structured engagement with investors. By reinforcing their convening power and project preparation capabilities, IPAs can help align national priorities with private sector participation—ensuring faster, more coordinated progress on SDG delivery.

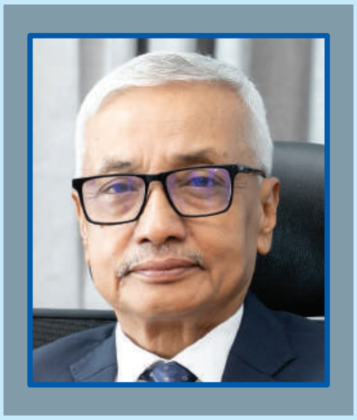
To build on this foundation, Nepal can benefit from a dedicated national climate investment promotion strategy that clearly positions Investment Board Nepal (IBN) and relevant IPAs as central actors in driving sustainable finance. While the country has made notable advances in sectors like hydropower, there is now an opportunity to bring similar coherence and focus across other climate-aligned sectors. National frameworks such as the National Adaptation Plan (NAP), SDG Roadmap, and Climate Resilient Planning (CRP) Guidelines offer strong direction—and embedding these into IPA-led project pipelines can further strengthen investment readiness and alignment with long-term goals. Establishing mechanisms such as a centralized project preparation and bankability window, and enhancing partnerships with DFIs and regional climate finance platforms, will elevate Nepal's visibility in the global green investment landscape. Sectors like climate-smart agriculture, distributed renewable energy, resilient housing, e-mobility, and circular economy present immediate and high-impact opportunities for sustainable private sector engagement.

IBN's Project Bank Guideline, introduced to streamline and standardize the identification, screening, and appraisal of PPP projects, offers a critical tool in this transformation. By aligning investment promotion efforts with the framework of the project bank along with credible projects, Nepal can significantly improve project readiness, and investor confidence. This platform can serve as a dynamic gateway for crowding in private capital across strategic public sectors—ensuring that national priorities are matched with market-ready investment opportunities.

International platforms such as the World Association of Investment Promotion Agencies (WAIPA) are already committed to supporting Nepal—by strengthening institutional capacity, promoting sustainability-aligned investments, and providing technical assistance in project promotion. Through collaboration, innovation, and institutional leadership, IPAs are poised to close the gap between climate ambition and actionable investment. The time for action is now. With less than five years to 2030, Nepal must move from plans to projects, and from policy to implementation. As Nepal expands its focus on climate-resilient development, the central role of its IPA system must be sustained and strengthened to anchor private capital in public priorities.

## STAKEHOLDER AWARENESS AND ENGAGEMENT

# Key to Successful PPPs in Nepal



**Mr. Jayandra Shrestha, Founding Member and Board Director of NAPPP, brings over four decades of experience across public and private sectors. An economist and management professional (MSc. Economics, MBA, LLB) & APMG certified CP³P PPP Professional (Foundation), he has also served as consultant/advisor to the National Planning Commission, multilateral agencies, and international firms. With over 25 years in PPPs—particularly in energy—his journey began at Nepal Electricity Authority, promoting IPPs and contributing to PPA pricing policy and standard PPA document as well as drafting and negotiating first cross-border TL agreement. Post-retirement, he advised private firms and lastly served four years as Technical Advisor at IBN until May 2024, supporting CEO and OIBN Team towards institutionalization of IBN as national PPP and promotion agency. A recipient of the "Prabal Jan Sewa Shree (IV)" in 2081, he is also a life member of MAN and NEPCA.**

Public Private Partnerships (PPPs) are emerging as a linchpin in Nepal's quest for sustainable development and economic growth. By integrating public goals with private sector capital, innovation and efficiency, PPPs can deliver much-needed quality infrastructure and services – from hydropower, connectivity, urban infrastructure to hospitals – that the government alone might struggle to finance, manage and deliver. Though the foundation of PPP model rests on long-term contract between government and private party, global experiences including experiences from Nepal suggests that the success of PPP hinges not just on contracts and capital, but on a strong partnership between government and private sector build on trust and confidence of PPP stakeholders-government, private sector and people. Hence, stakeholder awareness, advocacy, and engagement are critical ingredients determining whether PPP projects thrive or falter. In Nepal's context – with its federal structure and a history of strong community voice, stakeholders' awareness and their engagement in PPP lifecycles is not a mere box to tick, but a fundamental strategy for building public trust along with enhancement of PPP governance, transparency and accountability for successful implementation of PPP in different sectors. This article emphasises on awareness and engagement of multiple stakeholders to have uniformity in understanding of objective and importance of PPP model in addressing development needs and meeting people expectations and wider acceptance that PPP is a viable option to address large shortages in quality infrastructure and its inefficiency and public service delivery.

### Evolution of PPP: Concept, practice and its significance for Nepal

PPP concept and its application as public and private sector collaboration evolved over time and gained prominence in 20th centuries-emerged initially in U.S. -primarily in education and utilities, and later spread over to a wider range of infrastructure development in US, Europe and other parts of the world including developing nations. Infrastructure development as cornerstone for progress and development was once traditionally the responsibility of the government become difficult task for many nations due to ever increasing demand for better infrastructure and constraints on public funds as well as efficiency concerns in traditional procurement methods. Growing understanding by governments of emerging economies and developing nations that infrastructure investments were necessary for sustained economic growth resulted in increased global demand for infrastructure investment. Therefore, countries began looking for alternatives to meet its financing need for infrastructure development. Along with such evolving compulsion in development financing and deregulation of economies and privatization policies followed in many countries, PPP concepts emerged as most desirable and viable alternatives in the late 20th century and saw a surge in PPP projects in late eighties and nineties. PPPs became mainstream approach to infrastructure development in industrialized and developing nations from early 21st century and government and citizens benefited from it as a result of enhanced public services and quality infrastructure. PPP model is gaining momentum lately in emerging economies like India and China along with other nations in Latin America and Asia including Nepal.

The privatization of state-owned businesses initiated particularly in the UK under Prime Minister Margaret Thatcher gained popularity post 1980s worldwide. This movement gradually developed into Private Finance Initiative (PFI) in the UK and evolved later as successful PPP model across Europe and beyond as collaboration and partnership between government and private sector for infrastructure development. PPP model and its success paved the way for private sector to have considerable influence over infrastructure development through their innovation in financing mechanism, technical skill and project management skill to deliver infrastructure projects and its operation and management and demonstrated superior performance in time and cost relative to traditional procurement. Further, PPP collaborations also enabled governments to enhance public infrastructure and public services without placing an undue strain on national treasury and with less critics than straight forward privatization of public assets.

PPPs were widely adopted in industrialized countries such as the United States, Canada, and Australia and delivered billions of dollars worth infrastructure projects. PPP has helped to delivered approximately € 56 billion of private investment in 700 infrastructure projects of UK (PFI Centre of Excellence) while Australia and New Zealand PPP project totalled more than AUD 160 billion from 2021-2023 (Smith, Rosengarten, & Buss, 2025). The UK's Private Finance Initiative (PFI) launched in the early 1990s funded major and large infrastructure projects such as schools, hospitals, and transportation systems, reducing government spending while improving service delivery. PFI as a type of PPP model used to deliver large- scale infrastructure projects characterized by a strong focus on risk transfer to private sector. Whereas, Canada has effectively used PPPs to build transit systems, bridges, and highways based on appropriate risk and benefit sharing mechanism between government and private entities. Canadian PPPs often involved a comprehensive risk assessment and allocation framework, where the government and private partner agree on how different risks will be managed. Canada's PPP model stands out due to its combination of federal, provincial, and private sector collaboration and risk sharing mechanism. Australia used PPP model successfully since the early 1990s to build energy infrastructure, public transportation systems, and road networks. Key factors contributing to Australia's success include a stable political climate, well-defined legal frameworks, and stringent accountability standards. In the US, several states have used PPPs enabling the state to overcome financial limitations and expedite development of transportation projects such as bridges and toll highways. The US has a robust PPP framework, with a variety of models being used across different sectors, including transportation, energy and water.

PPP experience from US, UK, Canada and Australia, which helped to shape the global PPP landscape and setting the standard for private sector involvement in infrastructure, suggested following crucial takeaway for other countries for successfully designing, structuring and implementing PPP projects:

- Adhering to specific performance standards throughout project lifecycle for ensuring quality of services and minimizing infrastructure lifecycle cost;
- long-term sustainability of projects providing value for

money over its lifespan; and

- equitable risk sharing (financial, operational and environmental) between public and private sector for managing uncertainties and rewards

Though some lower volume is seen in these countries in comparison to in past decade, Turkey, India and China and several countries in Eastern Europe, Middle East and Central Asia are aggressively and effectively using PPP model in Transport and other sectors successfully with strong government support along with PPP enabling legal and Institutional Framework.

Our neighbouring countries India and China, emerging as strong economies in the world, have effectively used PPPs to upgrade its transport and urban infrastructure. PPPs have seen significant growth in China since 2014, with the government promoting them as a key financing approach for urbanization and infrastructure development. China central government has established a PPP Fund in 2016 with a registered capital of CNY 180 billion (US $ 26.36 billion) to attract private capital and to reduce financing cost in PPP projects to support PPP initiatives in the country. PPP projects spans various sectors including natural gas, ports, railways and roads. Number of PPP projects in China from 2014 to 2022 listed 10,331with a total investment of 16.5 trillion RMB (approx. US $232.5 billion) (Wang, Gong, Zheng, Han, & Zhang, 2024). Key factor boosting PPP in China include strong support from Central and subnational government, integrated development of Infrastructure PPP model combining with broader urban development goals aligning with national socio-economic goals, sharing of financial burden of PPP projects with private sector and other policy reforms at macro governance level (giving decisive role of market in resource allocation, level playing field for private sector in infrastructure and public service); at medium governance level(reform of administration system, streamlining administrative procedures, strengthening regulation and delegation of power, performance base PPP implementation improving the effectiveness and efficiency in investment encouraging innovation in project management and operation etc) and at micro management or project level (concept of value for money and lifecycle project cost in project selection and preparation, risk sharing and fair competition in procurement ) These reform initiatives supported private investment in PPPs including measures to ensure fair market access and protection of private sector investment.

India has effectively used PPPs to enhance its infrastructure particularly in transport, energy, water and sanitation and social infrastructure. Roads, railways, ports and airports are major focus area of PPPs in India. The National Highways Development Project (NHDP) launched in 1998 (which also included Golden Quadrilateral completed in 2012, connecting major cities already completed), has resulted various successful PPP projects, including development of high-density corridors, expressways and other critical highway stretches. This is a key initiative for boosting connectivity and economic growth and have significantly enhanced the country's transportation network. In essence PPPs have become integral part of NHDP enabling India to expand and modernize national highway network at a faster pace with greater efficiency by bringing in private sector efficiency and innovation including capital. The government has played a decisive role in promoting PPPs with policy decision support in land acquisition, necessary clearances and other facilities (tax incentives, VGF and support for project feasibilities), regulatory support and financial structuring. BOT (toll) and BOT (annuity) and lately BOT (hybrid annuity) is popular and being the main approaches used as PPP model in India. All 3 modes of PPP proven to be effective tool to use bridging fiscal gaps and attracting private sector participation in PPP model. PPP in particular BOT model has enable private companies to invest in, operate national highways often for a fix period, risk sharing and guaranteed government payment mechanism with appropriate compensation for risks. As stated by Gajendra Haldia, broad consensus in India, enabling framework for attracting competitive private investment, the model document, appraisal process, VGF schemes are supporting pillars of a strong and sustainable PPP framework in the highway sector (Haldea, 2013).

In modern world, most of the developing as well as developed countries embracing PPP as a successful model in development strategy and planning, funding and completing and operationalizing infrastructure project including improving diversified public services-from health to education, with increasing focus on ESG which often to refer as sustainability aligning with the SDGs. ESG factors are increasingly being used to make informed decision- "Go" or "No-Go" by investors and stakeholders. The global financial crisis of 2008 and post covid impact resulting in sluggish economic development and decreasing fiscal support from MDBs further highlighted the importance of active role of private sector and leveraging PPP for funding and management of infrastructure development and other public sector assets for introducing innovation, technical knowhow, and management expertise of private sector to introduce and enhance public sector efficiency for availing quality service to public at affordable cost and addressing infrastructure gaps, economic growth, and job creation.

Nepal also embrace PPPs in late Nineties which is driven by necessity and opportunity following a liberalization policy adopted by democratic government established as a result of democracy movement in 1990. Evolution of legal framework for PPP initiated with Hydropower Policy, Electricity Act and Foreign Investment and Technology Act (all in 1992) and BOT Policy on Road Sector in 1991. During 2000-2010, many of legislations enacted and streamlined paving the way for PPP in the infrastructure. Major break-through happened in 2010 to 2020 with establishment of IBN Act 2011 and PPP Policy 2015 leading to establishment of IBN in 2011 and signing of concession agreements for two major hydropower projects (Arun 3 and Upper Karnali) each with 900 MW capacity and with foreign investors (India). Public Private Partnership and Investment Act 2019, (PPPIA 2019) replacing IBN Act 2011, PPP and Investment Regulations 2020 is in place now in Nepal as principal legislation for PPP. In last 3 decades of PPP practice in Nepal, energy sector has seen success in attracting domestic as well as foreign private investors in PPPs, in particular in hydropower sector. However, development of PPP has far lagged behind in comparison to its regional counterparts and other parts of the world. Their experience suggest that Nepal can also benefit by adopting PPP model and leverage PPPs to accelerate infrastructure development by creating enabling PPP environment.

**PPP aspiration and current PPP landscape in Nepal**

Nepal needs to invest at least 10 % of GDP in infrastructure (at present around 4 % only) to bridge the investment gap in infrastructure and meet development target. Financing GAP for achieving SDG is estimated to be USD 18-20 billion annually till 2030. Nepal is first to adopt GRID (i.e Green, Resilient and Inclusive Development) in development approach and has a road map to graduate to middle income country by 2030 and moved to high income level by 2043 achieving net zero by 2045. These are ambitious target and infrastructure remains the key sector essential to achieve these milestones. Due to financial limitations and ineffecient public sector financial management, PPP route has become inevitable for Government of Nepal in mobilizing resources from private sector to achieve development goals to bridge funding gap and introduce efficiency in infrastructure delivery and management by attracting private investment, innovation and management expertise into public projects to enhance efficiency.

Though PPPs have been effective in infrastructure development worldwide helping governments to overcome financial constraints, improve efficiency in public service delivery and reduce corruption, factors such as political instability and policy inconsistency, regulatory obstacles, limited institutional capacity, and a lack of proper understanding of PPP and managing its complexities hindering Nepal from taking full leverage of PPP. The multiple dimension of PPP such as policy and regulatory framework as well as contingent liabilities in public financial management at macrolevel, Institutional capacity and PPP governance framework at medium (government bureaucracy) level for transparent and speedy process and procedures in necessary clearances and facilitation, and development of systems and a standard guideline at project execution level (i.e. PPP project lifecycle cost and value for money analysis in PPP project selection; system for transparency in project procurement along with development of standard documents with required information dissemination to prospective bidders for fair competition and selection of qualified bidder; structuring, drafting and negotiation of PPP contracts with appropriate risk and benefit sharing and award and government and public support during project implementation) are important consideration for creating enabling environment for gaining private sector confidence and facilitating them to take investment decisions thereby establishing foundation for a strong and sustainable public-private cooperation for successful execution of PPP in Nepal. With strategic reforms, uniformity in understanding, institutional capacity building and public awareness and required support from development partners including MDBs, Nepal can definitely leverage PPPs to accelerate infrastructure development by creating enabling environment to attract private sector including international investment, and enhance economic growth.

In fact, Nepal has already explored PPP in various sectors, including energy (hydropower and solar), urban development, transportation, water and sanitation and agriculture. PPP appeared to be successful and playing an increasingly important role in energy sector, particularly hydropower and transmission line projects in attracting private sector investments in BOOT modality- domestic as well as FDI. Tax incentives (10 years tax holiday and 50 % discount on prevailing corporate tax rate thereafter for another 5 years and only 1 % custom duty on importation of electromechanical equipment)) as well as guaranteed market provided through "Take or Pay" provision and standard purchase price and payment guarantee build in PPA documents facilitated signing of major contracts including financing agreements in hydropower sector under the PPP modality for domestic market. Khimti HEP (60 MW), Bhotekoshi HEP (45 MW) with FDI and Chilime HEP (22.5 MW) and Indrawati III HEP (7.5 MW) with domestic investments were early (1 st Generation) PPP projects demonstrating promising potential of private sector involvement in Nepal's hydropower sector. These projects were awarded as unsolicited projects and Power Purchase Agreement including power purchase price were concluded individually negotiated with Nepal Electricity Authority (NEA) -a monopoly public utility in electricity sector. A transparent PPA process put in place with standard PPA document and standard offer price by NEA in late 50s push forward and boosted the confidence of investors including financing institution and substantial number of 2 nd Generation IPPs flooded into the energy supply market. At present, roughly 3,000 MW of capacity and energy generation available through build-own-operate-transfer (BOOT) schemes (Asian Development Bank, 2020).

Around 4000 MW are under construction following financial closure and will be added in near future for domestic market (II). Arun-3 HEP (900 MW) awarded as a major export PPP project being developed by SJVN is in advance stage towards completion. Similarly, Upper Karnali HEP (900MW), Lower Arun HEP (669 MW) , West Seti HEP( 750MW) and SR-6 (450 MW), all with export proposition as Third Generation PPP hydropower projects and awarded and facilitated by Investment Board Nepal (IBN) will enhance cross border power trading for neighbouring countries -India and Bangladesh and could place Nepal in the medium to long run as a regional clean energy hub. Necessary transmission arrangements and agreements are also in place as Nepal and India JV TL PPP (Dhalkebar-Muzzafarpur 400 kV TL). Few more Cross Border TL are already planned and under execution in similar modality. Ever increasing demand within the country for industrialization as well as access to huge potential export market for clean and green energy to mitigate climate change issues will be a promising prospect for exploiting its hydropower potential of 83 GW, PPP success in hydropower sector along with large-scale renewable energy projects is a strong signal of Nepal's determination to leverage private sector partnerships for growth and progress as well empirical and first hand articulation of investor confidence for investing in Nepal. These developments need to be cash in for promoting and marketing Nepal as a favourable investment destination for foreign investment complemented with other necessary policy, legal, administrative and fiscal reforms and making them aware of the same.

Despite promising success in hydropower and energy sector, no PPP success story observed in other sector of Nepal. Though PPP procurement was initiated for Kathmandu-Terai Fast Track Road as 72 km fast track road, and ILFS was selected as qualified lowest bidder in 2015, no contract was signed as qualified bidder demanded for minimum traffic guarantee and payment and VGF was silent in RFP document, Lesson learnt from this failed PPPs is that no foreign investor will be attracted and ready to signed and do PPP project without "ready -to -go" project with clear PPP structuring of risk and return along with responsibilities of parties and without clear procurement and negotiation process. Similarly, another Road Project-Kathmandu-Kulekhani Hetauda Tunnel highway (4 lane 58 km) awarded as unsolicited BOT project to a Nepalese SPV also failed to realized due to lack of credibility and capacity of licensee company to manage financing for projects stressing the need for detail due diligence of PPP developer before awarding the PPP project. Few PPP initiatives are undertaken by Town Development Fund at Urban and Municipal sectors, such as urban transport management of Bharatpur Bus park and Lumbini Bus terminal at Butawal, water supply of Kathmandu Valley Drinking Water Limited, solid waste management project in Dhankutta and and Mechinager. However, proper institutional mechanism and PPP legal framework still not available for these sectors.

Success and failed attempts in the past along with emerging prospects and opportunities in PPP landscape suggests for focusing on several key steps for successful implementation of PPPs in Nepal:

**A. First, Nepal must establish a clear legal and regulatory framework to govern PPP.**

Legal framework outlines the laws and regulations that govern how PPPs are established, structured and implemented ensuring, transparency and accountability in bidding processes, risk-sharing between public and private, and ensuring effective and efficient contract negotiation and award. It includes PPP policies, specific laws and regulations defining PPP process, approval procedures, eligibility criteria and institutional responsibilities. PPPs are also subject to wider legal and regulatory environment, including environmental regulations, land acquisition, contract laws etc.

Public Private Partnership and Investment Act 2019 and Public Private Partnership and Investment Regulations 2020 provide the broader legal framework for PPPs implementation in Nepal along with PPP policy 2075. As per the section 4 of the Act, IBN is authorised and responsible for implementation of projects with cost of 6 billion rupees or above, and for hydropower and energy projects above 200 MW. Implementation of PPP Projects other than energy projects below the indicated threshold shall be responsibility of respective ministry of federal, local and provincial government and as authorized in law. In case of energy projects, implementation of energy projects below 200 MW is authorised to MOEWR. However, necessary PPP framework and legislations for PPP implementation are yet to be drafted and enacted for line ministries, provincial and local government.

Investment Board Nepal (IBN) was established in 2011 as a high-level PPP Institution under the chairmanship of Rt. Hon. Prime minister tasked with attracting and facilitating private investment including Foreign Direct Investment and managing Public-Private Partnership in Nepal [16]. It functions as national PPP unit and investment promotion unit. Act and regulation provide better legal clarity, visible administrative objectivity and often transparency for processing and implementation of PPP projects. Some improvement following enactment of IBN act 2019 are seen in PPP practice including development of IBN Project Bank Guideline aligning with PSAT tool developed by the World Bank. This document provide framework for identification, screening, selection, prioritization and appraisal of PPP projects enhancing its credibility (Bhatta, 2018). It is desirable that similar guidelines are prepared and to be put in place by IBN for preparation of bidding process and bidding document, contract structuring, negotiation and approval and signing of concession agreements for award of PPP project. This will definitely enhance institutional credibility of IBN including its PPP process and shall facilitate to attract credible and qualified bidders-a prerequisite for timely and efficient completion of PPP projects.

**B. Institutional Strengthening of public institutions**

IBN institutional strengthening as a PPP and Promotion unit and other line agencies -in particular Ministry of Energy and Water resource, the Ministry of physical infrastructure and transport and the Ministry of Finance is crucial for effectively managing PPP projects. Recent amendment in the IBN Act following Investment Summit 2024 is crucial initiative of GoN towards institutional sustainability of IBN permitting recruitment of own permanent staff and retention of PPP knowledge and practice in institution. Further, government has already approved establishment of IBN Fund, which is strategic and decisive steps towards institutional development as it provides basis towards financial sustainability and autonomy of IBN. IBN fund, with proper mobilization and allocation, shall be an effective instrument in better project preparation and capacity building and even for VGF and other such provision as necessary in the long run without having strain on government treasury. This need to be further advanced by formulation and approval of respective rules and by-laws.

**C. Creating PPP enabling environment**

Government should encourage private investment by improving procedures in clearances and facilitation including provision of fiscal incentives such as tax reductions, guarantees, and financial support systems (such as VGF) as required by PPP projects considering value for money in project evaluation and PPP structuring.

**D. Awareness of Public and relevant stakeholders**

Increasing public awareness through different mediums including campaigns highlighting the PPPs benefits including economic growth and infrastructure development will help gain broader support for this model.

**E. Uniformity in understanding of PPP and its role in national development**

There are constraints and challenges in deploying and expanding PPP due to inadequate coordination and support of line agencies for PPP projects in Nepal. Procedural delays resulted in slow pace of PPP development and delay in project implementation. It is desirable that necessary dialogue, discussion forum and other awareness campaign are lunched for enhancing understanding and awareness of government and stakeholders about PPP benefit and importance in socio economic transformation of the country there by creating uniformity in understanding between respective line agencies for successful implementation of PPP projects in Nepal.

**F. Strong will and Political Support for PPP development from leadership.**

Finally, countries with successful PPPs in China, India and other industrialized nations evidence a strong will and political support for PPPs. However, due to frequent political changes and lack of common understanding between political leaderships in Nepal causes troubling situation now and then in large scale PPP project. Appropriate PPP governance mechanism, transparency and political accountability and understanding towards development agenda and common ownership shall be fundamental for creating PPP enabling environment in the country.

**PPP stakeholder Imperative: Awareness and Advocacy**

Experience has shown that engineering a PPP deal is only half the battle. Equally important is "stakeholder factor" for winning hearts and minds by of stakeholders and informing them about what PPPs entail, and engaging and addressing their concerns, and aligning the PPP project with their interests. Though understanding of PPPs has grown, an awareness deficit persists about PPP benefits, inadequate supporting policies, and public scepticism equating PPPs with privatization or profit-first motives (NAPPP, 2025). Experts underscore a "pressing need for targeted sensitization efforts" – educating governments and local communities that PPP is not "privatization of public assets" and on how PPPs work and their potential benefits – as essential to dispel misconceptions and build public trust. By fostering a deeper understanding among all stakeholders – including the general public, policymakers, and private investors – Nepal can create a conducive environment for sustained economic growth through strategic partnerships that support the national development agenda (Rai, Shrestha, & Cardinale, 2018).

**Why Engagement Matters**

Large-scale PPP projects including the renewable energy sector, such as hydropower and solar farms, illustrate the high stakes of stakeholder engagement. Nepal's enormous hydropower potential has long been seen as a game-changer for the economy, and PPPs are fuelling its development. Large infrastructure including hydropower projects by nature affect local communities – they require land, can alter river ecosystems, and often involve resettlement or environmental concerns. Without careful consultation and benefit-sharing, local resistance can quickly derail even the most technically sound project.

Engaging communities early and earnestly can make the difference between conflict and collaboration. Nepal has pioneered an innovative mechanism in hydropower PPPs known as "local shares", which offers residents of project-affected areas the opportunity to buy an equity stake (often up to 10%) in the venture. This policy has proven highly popular – it has raised substantial local equity investment and, more importantly, created a sense of community ownership and support for hydropower projects being built and operated successfully. It's a prime example of awareness and engagement translating into public buy-in. Beyond financial participation, inclusive approaches also support garnering inputs from local knowledge in project design and builds a sense of long-term stewardship (The Asia Foundation and VROCK & Company, 2019).

It's not just communities that need to be on board, coordinating different actors -stakeholders, central ministries, provincial authorities, local municipalities, foreign investors, contractors, environmental NGOs, and more, requires clear roles and constant communication. The Office of the Investment Board of Nepal (OIBN), which oversees large infrastructure PPPs, has emphasized the need to engage multiple stakeholders at all steps of PPP project planning and implementation (Investment Board Nepal, 2020).

PPPs in social sectors like education, healthcare, and local infrastructure can be equally impactful with partnership. A partnership between the government and a non-profit organization in Achham transformed a struggling hospital into a thriving institution serving over 100,000 patients annually. The success came from aligning all stakeholders – from local government to communities – around a shared vision of better healthcare and trust (Udayakumar, et al., 2019).

Nepal's shift to federalism has added another dimension to PPP implementation: the need for coordination and advocacy across federal, provincial, and local governments. Under the new system, a large infrastructure project might be facilitated by a federal agency like IBN, licensed by a federal or provincial ministry, and physically executed in a local government's jurisdiction. If any layer of this governance trio is not on board, the partnership can stumble. For example, provincial governments are still clarifying their roles relative to the federal government on big projects, and this sometimes leads to gaps or overlaps in communication (World Bank, 2019). The remedy is a unified approach where all levels of government engage through awareness, advocacy and coordination. When the three tiers of government speak with one voice, it sends a powerful message to the public and private partners alike that the PPP is a national priority with broad support. Such multi-tier engagement with consistent messaging, consistent policy support, and consistent commitment across government reassures investors and citizens that the partnership has staying power beyond political cycles.

## Roles of Key Stakeholders in PPP Success

Different stakeholders bring different strengths and responsibilities to a PPP, and understanding these roles helps in orchestrating effective collaboration:

**Federal Policymakers and Agencies:** Define the legal and regulatory framework, promote investment, and align PPPs with national goals. Their role in communicating the public value of each project is essential (Asian Development Bank, 2020).

**Provincial and Local Governments:** Adapt PPP models to local contexts, ensure effective implementation, and advocate at the grassroots. They must orient citizens, provide feedback channels, and monitor local impacts.

**Private Sector:** Deliver infrastructure and services efficiently while engaging communities, respecting environmental and labor standards, and maintaining transparency. Corporate Social Responsibility is as crucial as technical performance (The Asia Foundation and VROCK & Company, 2019).

**Communities and General Public:** Provide local insights, monitor implementation, and act as partners in service delivery. With access to information and a seat at the table, citizens become champions rather than critics.

**Civil Society and NGOs:** Serve as bridges between communities and government. NGOs facilitate dialogue, monitor social impacts, and amplify the voices of marginalized groups. Their involvement enhances inclusivity and transparency (Udayakumar, et al., 2019). In practice, these stakeholder roles often overlap, and effective engagement means breaking out of silos. A culture of collaboration – where a private company respects local customs, or a community leader sits in planning meetings with engineers – can transform a PPP from a mere contractual arrangement into a truly "public-private-people partnership." Nepal's development partners even advocate a multi-stakeholder approach to PPPs that explicitly includes communities and civil society as part of the model, not as afterthoughts. The more each stakeholder understands and respects the others' roles, the better the partnership works.

**Political Leadership and Bureaucracy:** Strong political ownership with understanding of PPP as a development strategy and devising appropriate policy and legal framework and policy consistency is a precondition for creating PPP enabling environment in the country. Similarly, at public administration, government officials need to demonstrate the transparency and accountability including necessary collaboration with line agency including PPP unit on their part for better service delivery to investors, facilitating efficient implementation of PPP projects. Uniformity in understanding and positive mindset at this strategic level have tremendous impact in a way that affects the adoption and successful implementation of PPP.

**Development Partners and MDBs**: Development partners and MDBs have been strongly supporting development initiatives to developing nations, including Nepal in infrastructure and social sector development. With deepening financial limitation, and efficiency issues in delivery and implementation, their policy and strategy are shifting towards facilitation of private sector investment and promoting PPP in development of infrastructure and service sector. In this regard, their support in three pillars of PPP as stated below has been observed in many countries:

**Pillar I:** Strengthening PPP enabling Environment (Upstream Support)

**Pillar II:** Project Preparation and Structuring, procurement and drafting of contract and negotiation (Mid Stream - Support as Transaction Advisory)

**Pillar III:** Facilitating Financing of PPP projects (Down Stream Support)

The World Bank on June 13, 2025 launched a new 7-year Country Partnership Framework (CPF) for 2025-2031 with a sum of about US $ 2.7 billion-an encouraging initiative of the Bank focusing on creating more investment friendly environment and private sector solutions to drive growth, job creation and investments, fostering connected communities and resilient development.

**Transparency, Advocacy, and Public Trust: Towards Sustainable Development Outcomes**

Underlying all these efforts is a simple truth: *Trust is the "key" to successful PPPs*. And trust is earned through transparency, accountability and consistent advocacy. Transparency and accountability are the key to good governance and generating trust while advocacy, in this context, means continuously communicating the public value of the PPP. Good governance plus advocacy equals credibility: explaining the rationale, showing the safeguards in place, and if needed, responding to the valid concerns of stakeholders. Nepal's journey has shown that winning public trust is an ongoing process throughout the project lifecycle and even beyond. Importantly, robust stakeholder engagement and trust also enhance investor confidence. Private investors are more willing to commit to projects in societies where social risks are managed and political support is broad.

PPPs are not just transactions – they are vehicles for development. When stakeholders are active and trustworthy partners with positive mindset and ownership, PPPs can truly fulfil their promise of combining the best of both sectors to improve peoples' lives. Governance and trust are building block for the same. It builds a reservoir of social capital that makes future PPP collaborations easier – a critical point as Nepal will need many more PPPs to meet its infrastructure needs.

To sum up, stakeholder awareness, advocacy, and engagement are not add-ons to the PPP process in Nepal – they are at its core. They are the practices that build the public trust, legitimacy, and sense of shared ownership without which PPPs cannot thrive. By investing in stakeholder engagement as deeply as in engineering and financing, Nepal can pave the way for PPP

Highlighting the CPF, the World Bank Country Division Director for Maldives, Nepal and Sri Lanka **Mr. David Sislen** said "*Creating job is not just at the heart of our mission, it is also lifeline that can drive Nepal's sustainable and resilient growth, the CPF builds on more than 60 years of partnership between the World Bank Group and Nepal and will leverage development partner collaboration and private sector solutions to drive growth, job creation and investment.*"

**Mr. Imad N. Fakhoury** Regional Director of IFC at South Asia said "*We support Nepal in creating more and better jobs, bolstering disaster preparedness, and contributing to a sustainable future by mobilizing domestic and international capital, public-private partnership and enhancing institutional capacity. CPF will guide our efforts in advancing reforms that will unlock private sector investment and strengthen business environment to make a meaningful difference in the lives of people of Nepal. As a cross cutting priority, the World Bank Group will help strengthen the accountability and effectiveness of public sector's institutions.*"

The World Bank Press Release on May 29, 2025 projects that not only build physical assets, but also build trust as social capital. With such initiation, partnership truly lives up to its name – a public-private partnership that includes the public as an active partner and recipient– driving Nepal's sustainable development forward for generations to come.

**References**


Asian Development Bank. (2020). Public–Private Partnership Monitor: Nepal. Asian Developmet Bank.

Bhatta, S. (2018). Public Private Partnership in Nepal. First Meeting of the PPP and Infrastructure Financing Network of Asia and Pacific. Guiyan, China: UNESCAP/CPPPC.

Haldea, G. (2013). Public- Private partnership in National Highways: Indian perspective. International Transport Forum Discussion Papers. doi:https://doi.org/10.1787/5k46n3z78mwd-en

IBN. (2021). Project Bank Guideline. Kathmandu : Investment Board Nepal.

Investment Board Nepal. (2020). Annual report FY 2019/20. Kathmandu: Investment Board Nepal.

Investment Board Nepal. (2021). Five Year Strategic Plan (FY 2020/21-2025/26). Government of Nepal, Investment Board Nepal. Babarmahal, Kathmandu: Investment Board Nepal.

Ministry of Finance. (2024). Economic survey 2023/24. Kathmandu : Government of Nepal.

NAPPP. (2025, August 24). Need for PPP sensitization in Nepal. (N. A. Practitioners, Editor) Retrieved May 24, 2025, from LinkedIn: https://www.linkedin.com/posts/nepalese-association-of-ppp-professionals-and-practitioners_need-for-ppp-sensitization-in-nepal-public-private-activity-7244185257195831297-DvXQ/

Rai, N., Shrestha, P., & Cardinale, P. (2018). Local Shares : An In-depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects. Energy GP SAR (GEE06). Washington D.C.: World Bank Group. Retrieved from http://documents.worldbank.org/curated/en/557631540818936608

Smith, C. M., Rosengarten, A., & Buss, S. (2025, May 28). PPP trends: Lessons learned from the UK, Australia and Türkiye. Our Thinking. Retrieved June 19, 2025, from https://www.whitecase.com/insight-our-thinking/ppp-trends-lessons-learned-uk-australia-and-turkiye

The Asia Foundation and VROCK & Company. (2019). Public Private Partnerships and Emerging Lessons with Municipal Governments. स्थानिय सरकार सवलिकरण (pp. 1-7). Kathmandu: The Asia Foundation . Retrieved from https://asiafoundation.org/wp-content/uploads/2024/08/Nepal-Policy-Dialogue_Private-sector-and-governance-session-Notes.pdf

Udayakumar, K., Gonzalez-Smith, J., Kadakia, K., Thoumi, A., Maru, D., Basnett, I., . . . Schwarz, R. (2019). Possible Nepal. Case Study, Duke University, Duke-Margolis Center for Health Policy. Retrieved from https://healthpolicy.duke.edu/sites/default/files/2019-11/Case%20Study%20-%20Possible%20Nepal.pdf

Wang, Y., Gong, L., Zheng, S., Han, X., & Zhang, J. (2024). Temporal and Spatial Evolution of Public-Private partnership (PPP) Project Risks in China: 2003-2019. Willey online library. Retrieved June 18, 2025, from https://onlinelibrary.wiley.com

World Bank. (2017). PPP as a tool to use bridging the gap in countries (ppt). 4th South Asia Regional Procurement Conference, 20-23 February 2017. Kathmandu: The World Bank Group. Retrieved June 19, 2025, from https://thedocs.worldbank.org.

World Bank. (2019). Guidance on PPP Legal Frameworks. Global: International Bank for Reconstruction and Development/The World Bank. Retrieved from https://ppp.worldbank.org/public-private-partnership/library/world-bank-guidance-ppp-legal-frameworks

# PPP TOOLKIT GLOSSARY

1. **Availability Payment:** Government pays private partner based on asset readiness/performance, rather than usage.
2. **Build-Operate-Transfer (BOT):** A PPP model where a private entity designs, finances, constructs, and operates a project for a specified period before transferring ownership back to the government.
3. **Concession Agreement:** A type of PPP contract granting a private entity the right to design, build, finance, operate, and maintain a public infrastructure project for a specified period, after which the asset is transferred back to the government.
4. **Contractual Risk Allocation:** Clear delineation of responsibilities and exposures between public and private partners.
5. **Environmental Impact Assessment (EIA):** A study conducted to evaluate the potential environmental consequences of a proposed PPP project and to propose mitigation measures.
6. **Expression of Interest (EOI):** A preliminary document issued by the government to gauge the interest of potential private partners in a proposed PPP project.
7. **Force Majeure:** Unforeseeable events beyond the control of the contracting parties (e.g., natural disasters, political instability) that may impact the execution of a PPP project.
8. **Investment Board Nepal (IBN):** A high-level government body established to facilitate and manage large-scale investments and PPP projects in Nepal, as mandated by the PPPIA.
9. **Market-Led Proposal (MLP):** Private sector–initiated, unsolicited PPP proposals to government; often have a high non-selection rate.
10. **Monitoring and Facilitation Committee:** A committee established under the PPPIA to oversee the implementation of PPP projects, ensuring compliance with agreements and facilitating issue resolution.
11. **Performance Monitoring Framework:** A system designed to evaluate and ensure compliance with agreed performance standards during the operation of a PPP project.
12. **PPP Unit:** A dedicated agency (governmental or semi-independent) promoting/supporting quality PPP projects by ensuring criteria like affordability, VfM, and proper risk allocation.

13. **Project Bank:** A repository of potential PPP projects identified, screened, and prioritized by the government to attract private investment. The Project Bank is managed in coordination with relevant government agencies and the private sector.
14. **Project Development Agreement (PDA):** A contract between the government and a private partner outlining the terms and conditions for the development phase of a PPP project, including roles, responsibilities, and risk-sharing mechanisms.
15. **Project Implementing Agency (PIA);** A government entity responsible for the execution and management of PPP projects, including project identification, preparation, procurement, and monitoring.
16. **Project lifecycle:** The project lifecycle comprises all project stages, including initiation, planning, procurement, construction, operation and decommissioning.
17. **Public Sector Comparator (PSC):** A tool used to assess the value for money of a PPP project by comparing the cost of delivering the project through traditional public procurement versus the PPP route.
18. **Public Sector Comparator (PSC):** Benchmark cost model for a fully public delivery option, used in VfM analysis.
19. **Public-Private Partnership (PPP):** A cooperative arrangement between the Government of Nepal and private sector entities for the development, financing, and operation of infrastructure projects or services, as defined under the PPPIA, 2019.
20. **Public-Private Partnership and Investment Act, 2019 (PPPIA):** The primary legislation governing PPPs in Nepal, outlining the legal framework for project identification, development, implementation, and investment procedures.
21. **Public–Private–Community Partnership (PPCP):** PPPs involving non-profits/community-based organizations to support service delivery in developing contexts
22. **Request for Proposal (RFP):** A formal document issued by a government agency inviting qualified private entities to submit detailed proposals for a PPP project.
23. **Risk Transfer:** Shifting project risks (e.g. cost overruns, delays) to private partners, often at a cost to the government .
24. **Shadow Tolls:** Payments to concessionaire based on usage levels, funded by government not users.
25. **Social Impact Assessment (SIA):** An evaluation of the potential effects of a PPP project on local communities, including social, cultural, and economic dimensions.
26. **Special Purpose Vehicle (SPV):** A legal entity created by a private partner specifically for the implementation and operation of a PPP project, isolating financial risk from the parent company.
27. **Swiss Challenge:** A procurement method where an unsolicited proposal is made public, allowing third parties to submit competing bids. The original proponent is then given the opportunity to match or improve upon the best alternative offer.
28. **Unsolicited Proposal:** A project proposal submitted by a private entity without a prior request from the government, aiming to develop a project under the PPP model. The PPPIA provides guidelines for evaluating and processing such proposals.
29. **User-fee Mechanism:** Revenue model where users directly pay for service (e.g., tolls, tariffs).
30. **Viability Gap Funding (VGF):** Financial support provided by the Government of Nepal to make PPP projects financially viable when user fees alone are insufficient to cover project costs.
31. **Value-for-Money (VfM):** Evaluation comparing PPP bids to a theoretical fully public option, focusing on risk transfer benefits, not just cost

# STEP-BY-STEP PPP PROJECT DEVELOPMENT PROCESS IN NEPAL

**1. Project Identification and Listing**

- **Concerned Agency**: Identifies potential **projects** that may be implemented under **Public-Private Partnership (PPP)**, in line with national priorities and sectoral policies (Section 20, PPPIA).
- The agency prepares a **list of projects**, specifying whether a **Survey** (e.g., preliminary, environmental, or detailed feasibility studies) has been conducted.
- The **Public-Private Partnership Unit (PPP Unit)** provides technical and financial advice during the identification process.

**2. Feasibility Studies**

- A **Preliminary Feasibility Study** is conducted to assess whether the project meets technical, financial, economic, social, and environmental criteria (Rule 15, PPPIR).
- The **PPP Unit** evaluates the study and submits its recommendations to the **Investment Board Nepal (IBN)** or the **concerned agency**.

**3. Approval of Projects**

- By concerned PIA [see table at end]

**4. Publication of Approved Project List**

- Approved projects are published, including:
- Project details.
- Implementation methods (e.g., BOT, BOOT, BTO).
- Cost estimates and **conditions of implementation**.

**5. Expression of Interest (EOI)**

- The **concerned agency** issues a public notice inviting **Expressions of Interest (EOI)**, published in a **national daily newspaper** and online (Section 23, PPPIA).
- EOIs must include:
  - Details of the proponent's **technical and financial capacity**.
  - Proposed business and implementation plans.
  - Relevant supporting documents (Rule 17, PPPIR).

**6. Evaluation and Shortlisting of EOIs**

- An **Evaluation Committee**, constituted by the agency (Rule 30, PPPIR), assesses EOIs based on:
  - Technical capability (30-50% weightage).
  - Financial capacity (20-40% weightage).
  - Experience in similar projects (10-30% weightage).
- A **Shortlist** of up to six proponents is prepared based on evaluation scores (minimum 60% required).

**7. Request for Proposals (RFP)**

- Shortlisted proponents are invited to submit **Request for Proposals (RFPs)**, with a minimum submission deadline of 45 days.
- RFP submissions must include:
  **Technical and financial proposals**.
  - Environmental and social sustainability reports.
  - Business models and revenue-sharing arrangements.
  - Proposed tariff or user charges for consumers (Rules 21–22, PPPIR).
- The **agency head or designated authority** certifies RFP documents prior to issuance.

**8. Proposal Evaluation and Selection**

- Proposals are evaluated based on:
  - **Technical feasibility** (e.g., timeline and standards).
  - **Proposed royalties or tariffs** (Section 27, PPPIA).
  - **Financial sustainability** and risk-sharing.

- The highest-ranked proposal is selected, and the decision is communicated to the proponent.

### 9. Negotiation and Agreement

- A **Negotiation Committee** is formed to finalize the terms of the project, including:
  - **Implementation timeline** and phase-wise plan.
  - **License duration** and transfer conditions.
  - Land acquisition and compensation arrangements.
  - Insurance, tariffs, and royalty provisions.
  - Rights and obligations of both parties (Section 37, PPPIA).
- The finalized **Project Development Agreement (PDA)** is signed, formalizing the terms of implementation.

### 10. Financial Closure

- The private partner is required to achieve **Financial Closure** within the agreed timeline, securing funding through **equity, debt, or other financial instruments** (Section 27, PPPIA).
- The **concerned agency** facilitates this process through its **One-Stop Service Center**, ensuring compliance with necessary legal and administrative requirements.

### 11. Implementation of the Project

- The private partner undertakes the project as per the **Concession Agreement**, which defines:
  - Roles in construction, operation, and maintenance.
  - Monitoring mechanisms for quality and compliance.
  - Revenue collection and management of tariffs (Section 36, PPPIA).

### 12. Monitoring and Facilitation

- The **Monitoring and Facilitation Committee**, led by the Vice Chairperson of IBN, ensures:
  - Regular monitoring of project progress.
  - Coordination with government bodies for issue resolution.
  - Compliance with the terms of the agreement (Rule 33, PPPIR).
  - Non-compliance may lead to **revocation of license** or penalties as per the agreement.

### 13. Project Handover

- Upon completion of the concession period, the private partner hands over the project to the **concerned agency**.
- The project must meet pre-agreed **technical standards** and conditions specified in the agreement.
- Ownership of the project, including assets and facilities, reverts to the government (Section 44, PPPIA).

### 14. Post-Completion Monitoring

- The **concerned agency** continues to monitor the project post-handover, ensuring long-term sustainability and adherence to public service standards.

**Table: Concerned Agency for PPP Project Approval and Implementation**

[Section 4, PPPIA 2019]

| Implementing Agency | Concerned Local Level | Concerned Provincial Govt. | Concerned Ministry of GoN | Investment Board Nepal |
|---|---|---|---|---|
| Jurisdiction /Cost /Capacity | Projects under local-level jurisdiction | Projects under province-level jurisdiction | Projects under federal jurisdiction, cost ≤ NPR 6 billion, except hydropower > 200 MW | Projects under federal jurisdiction, cost > NPR 6 billion, except hydropower > 200 MW |

# SPECIAL PROVISIONS AND LEGAL CONSIDERATIONS IN NEPAL'S PPP FRAMEWORK

## SPECIAL PROVISIONS

1. **Unsolicited Proposals (Section 28, PPPIA)**

- Private proponents can propose projects without government solicitation.
- Such proposals undergo evaluation and may lead to competitive bidding through the Swiss Challenge process.
- If another proponent submits a superior proposal, the original proponent has the right to match it.

2. **Swiss Challenge Method**

- A competitive process initiated for unsolicited proposals to ensure transparency and value for money.
- Third parties are invited to submit competing proposals for the project.

3. **Viability Gap Fund (VGF) (Section 43, PPPIA)**

- A government fund established to support infrastructure projects that are economically beneficial but not immediately financially viable.
- Provides grants or loans for capital and operational needs based on project-specific criteria.

4. **One-Stop Service Center (Section 46, PPPIA)**

- Simplifies administrative procedures for project approvals, including permits, licenses, land acquisition, and environmental approvals.
- Facilitates investor support, including tax registration, foreign currency exchange, and labor permits.

5. **Hybrid Financing**

- Permits combining public and private financing mechanisms, enabling innovative funding solutions for large-scale infrastructure projects.
- Encourages collaboration between the government, private sector, and international financing institutions.

6. **Performance Bond Requirement (Section 31, PPPIA)**

- Proponents must provide a performance bond during project agreement execution to ensure compliance with timelines and deliverables.

## LEGAL CONSIDERATIONS

1. **Land Acquisition and Compensation (Section 50, PPPIA)**

- Investors may request government support for acquiring private or government land for project purposes.
- Compensation to landowners is paid by the investor or through a government-managed acquisition fund.

2. **Security and Protection of Investments (Section 47, PPPIA)**

- Investments are protected from nationalization during the project concession period.
- Legal, administrative, and policy changes during the concession period do not retroactively affect projects.

3. **Foreign Investment and Currency Repatriation (Section 48, PPPIA)**

- Foreign investors are guaranteed the right to repatriate profits, dividends, loan payments, and royalties in foreign currency.
- Exchange services are facilitated for foreign investors.

4. **Monitoring and Facilitation Committee (Section 9, PPPIA)**

- Ensures project compliance through regular monitoring.
- Facilitates issue resolution and provides recommendations for incentives or penalties.

5. **Risk Allocation and Force Majeure (Section 37, PPPIA)**

- Risks are allocated to the party best able to manage them.
- Provisions for force majeure events are included, ensuring flexibility in case of unforeseen circumstances (e.g., natural disasters, political unrest).

6. **Cancellation of Agreements (Section 38, PPPIA)**

- Agreements can be revoked for non-compliance with terms, failure to meet deadlines, or significant deviations from agreed plans.
- Cancellation follows due process, and investors may not claim compensation unless stipulated in the agreement.

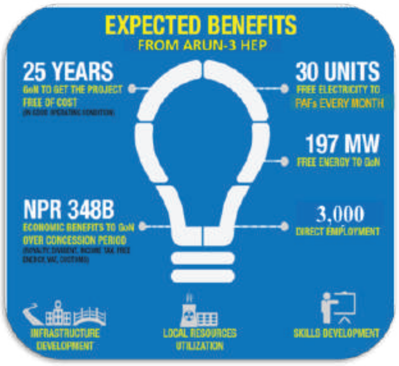
| SPECIAL PROVISIONS | LEGAL CONSIDERATIONS |
|---|---|
| 7. **Direct Negotiations for Exceptional Cases (Section 29, PPPIA)**<br><br>○ If a competitive process fails to select a proponent after two attempts, direct negotiations may be undertaken.<br><br>○ Also applicable for projects involving unique technology, national priorities, or projects that inherently lack competition.<br><br>8. **Priority Projects and Sectoral Emphasis (Section 19, PPPIA)**<br><br>○ Projects aligned with national and provincial development priorities are given special emphasis and expedited processes. | 7. **Incentives for Early Completion (Section 44, PPPIA)**<br><br>○ Financial or non-financial incentives are available for developers who complete projects ahead of schedule, reduce costs, or enhance quality through modern technology.<br><br>8. **National and Sub-National Implementation**<br><br>○ Viability Gap Funding (VGF) for provincial or local-level projects requires Ministry of Finance approval.<br><br>9. **Dispute Resolution (Section 37, PPPIA)**<br><br>○ Disputes are resolved through pre-agreed mechanisms, including mediation, arbitration, or judicial processes, ensuring efficient resolution.<br><br>10. **Annual Performance Contracts for IBN Officials (Rule 26, PPPIR)**<br><br>○ Officials, including the Chief Executive Officer, must sign annual performance contracts detailing their deliverables and timelines |

# SJVN PROJECTS IN NEPAL

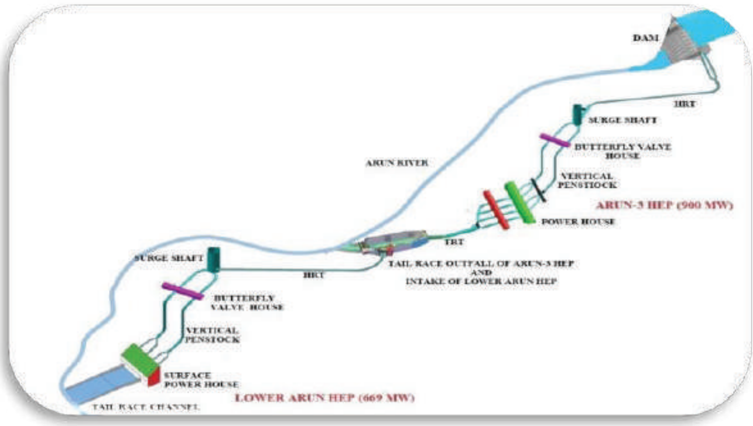
## About Us


SJVN Arun-3 Power Development Company Pvt. Ltd. (SAPDC) and SJVN Lower Arun Power Development Company Pvt. Ltd. (SLPDC) are wholly owned subsidiaries of SJVN Limited, a Navratna CPSE under the Ministry of Power, Government of India. SAPDC was incorporated on 25 April 2013 and SLPDC on 26 May 2023 under Nepalese Companies Act 2063. Project Development Agreements under BOOT model were signed with the Investment Board of Nepal for the 900 MW Arun-3 HEP and 669 MW Lower Arun HEP. SJVN intends to develop 490 MW Arun-4 HEP in JV mode with Nepal Electricity Authority (NEA).

The principal objective of companies is to Plan, Promote, Organize and Execute Hydro electric Projects in Nepal.







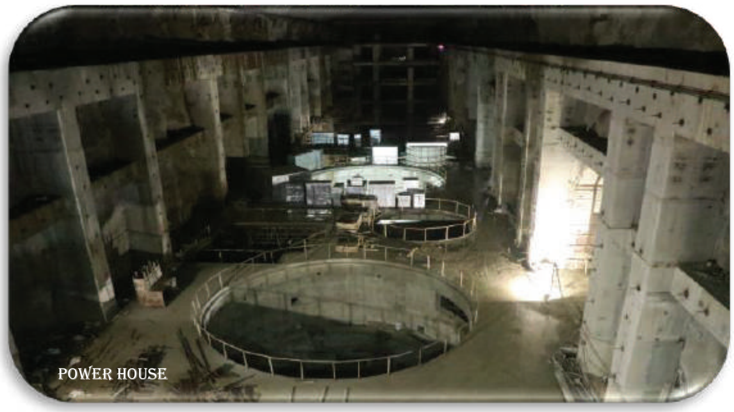

## Major Projects

**Under Development**

1. Lower Arun Hydro Electric Project (669MW)
2. Arun 4 Hydro Electric Project (490MW)- (JV with NEA)

**Under Construction**

1. Arun 3 Hydro Electric Project (900MW)
2. 400kV Transmission Line


## Contact Us

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**Co-ordination & Liaison Office:**

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