# CH –VI CONTEMPORARY ISSUES IN ENGINEERING

**Globalization and Cross Cultural Issues**

**Public Private Partnership**

**Safety, Risk and Benefit Analysis**

**Development and Environment**

**Conflict and Dispute Management**

# Public private partnership

- Co-operation between the public authorities and private businesses to guarantee the financing, construction, renewal, management
- Definition of 'Public-Private Partnerships '
- A business relationship between a private-sector company and a government agency for the purpose of completing a project that will serve the public.
- Public-private partnerships can be used to finance, build and operate projects such as public transportation networks, parks and convention centers.
- Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.

# PPP

- **Public-private partnerships often use private-sector investments to finance a public project when sufficient public funding is not available. For example, a city government might be heavily indebted, but a private enterprise might be interested in funding the project's construction in exchange for receiving the operating profits once the project is complete.**
- **Public-Private Partnerships (e.g. concession, BOOT).**
- **Management and lease contracts**
- **Restructuring and privatization of state-owned enterprises**
- **Upstream advisory work (regulatory, legal)**
- ***BOOT** (build, own, operate, transfer) is a **public-private partnership**(**PPP**) project model in which a private organization conducts a large development project under contract to a public-sector partner, such as a government agency.*
- **Concessions, Build-Operate-Transfer (BOT) and Design-Build-Operate (DBO) Projects**
- A **Concession** gives a concessionaire the long term right to use all utility assets conferred on the concessionaire, including responsibility for operations and some investment. Asset ownership remains with the authority and the authority is typically responsible for replacement of larger assets.

# What is PPP?

- **A public private partnership is a legally-binding contract between government and business for the provision of assets and the delivery of services that allocates responsibilities and business risks among the various partners. In a P3 arrangement, government remains actively involved throughout the project's life cycle.**
- **The private sector is responsible for the more commercial functions such as project design, construction, finance and operations.**

# What are the benefits of P3s for government and taxpayers

- **P3s provide an opportunity to:**
- **Improve service delivery by allowing both sectors to do what they do best.**
- **Government's core business is to set policy and serve the public. It is better positioned to do that when the private sector takes responsibility for non-core functions such as operating and maintaining buildings.**
- **Improve cost-effectiveness. By taking advantage of private sector innovation, experience and flexibility, P3s can often deliver services more cost-effectively than traditional approaches. The resulting savings can then be used to fund other needed services.**

## What are the benefits of P3s for government and taxpayers

- **P3s provide an opportunity to:**
- **Improve service delivery by allowing both sectors to do what they do best.**
- **Increase investment in public infrastructure. Investments in hospitals, schools, highways and other provincial assets have traditionally been funded by the Province and, in many cases, have added to levels of overall debt.**
- **P3s can reduce government’s capital costs, helping to bridge the gap between the need for infrastructure and the Province's financial capacity.**

## What are the benefits of P3s for government and taxpayers

- **P3s provide an opportunity to:**
- **Improve service delivery by allowing both sectors to do what they do best.**
- **Reduce public sector risk by transferring to the private partner those risks that can be better managed by the private partner. For example, a company that specializes in operating buildings may be better positioned than the government to manage risks associated with the changing demands of commercial real estate.**
- **Deliver capital projects faster, making use of the private partner's increased flexibility and access to resources.**

## What are the benefits of P3s for government and taxpayers

- **P3s provide an opportunity to:**
- **Improve service delivery by allowing both sectors to do what they do best.**
- **Improve budget certainty. Transferring risk to the private sector can reduce the potential for government cost overruns from unforeseen circumstances during project development or service delivery. Services are provided at a predictable cost, as set out in contract agreements.**
- **Make better use of assets. Private sector partners are motivated to use facilities fully, and to make the most of commercial opportunities to maximize returns on their investments. This can result in higher levels of services.**

# Background and PPP experience in Nepal

1. Poor infrastructure has been one of the hindrances in Nepal's competitiveness
2. The Global Competitiveness Report 2009/10 produced by World Economic Forum put Nepal's position in infrastructure at 131 out of 133 countries surveyed throughout the world.
3. There is clearly a need for increased investment in infrastructure and other basic services.
4. However, only the government's investment and involvement in infrastructure and public services is not enough implying the need for a greater role of the private sector.

# Background and PPP experience in Nepal

1. The Government of Nepal envisages the use of PPP for procuring and financing infrastructure and services in the country.
2. In spite of the acceptance of PPP at the country level, major PPP infrastructure projects or other national level PPP initiatives are yet to emerge.
3. Despite the positive overtures of the government and political leaders alike, the private sector in Nepal has not entered into PPP in a big way.
4. There may be several reasons why PPP projects have been slow to develop to date, including the recent emergence from conflict.

# Background and PPP experience in Nepal

1. The overwhelming feeling is that while the government may be open minded and inviting of private involvement in the public arena, nothing concrete has been laid on the table.
2. There is still lack of confidence and trust between the public and private sectors.
3. There is a need of clear policy guidelines on PPP by the government.
4. The existing legal and policy framework as well as institutional arrangements are not encouraging for flourishing PPP development initiatives in Nepal.
5. It in this context that the government has prepared a policy document on public private partnership.
6. This document clarifies the government's view regarding PPP and proposes a clear road map of concrete future actions.

# objectives

**The specific objectives of PPP policy are to**

1. **Provide the concept and definition of PPP in Nepal**
2. **Spell out the principles of partnership with private sector for undertaking projects related to infrastructure and public services, including the provision of PPP enabling environment**
3. **Propose institutional arrangements for PPP growth in Nepal, including need of a PPP centre**
4. **Recommend appropriate financing policies and mechanisms for PPP financing in Nepal**
5. **Establish a clear cut regulatory framework and mechanism/guideline for PPP contracts procurement**
6. **Ensure a balance between risk and reward for both government and private sector, with an appropriate risk sharing mechanism**

# Concept of PPP

1. **PPP refers to the blending of resources and assets from both public and private sectors for the benefit of all the parties and with an objective of providing a more efficient and cost effective means of the service at a saving to the public.**
2. **Such partnership includes the design, construction, financing, operation, and maintenance of public infrastructure and facilities or the operation of services to meet pubic needs.**
3. **Benefits include reduced cost, better quality of service, greater productivity, and better leverage of the limited government resources to fulfill high cost, high need projects**

# common elements defining PPP in Nepal includes

1. **A contractual agreement between a public entity and private entity**
2. **A substantial transfer of appropriate risk to the private party**
3. **Focus on service delivery to meet public service or infrastructure needs**
4. **Private parties have investments at risk, although private capital investment is not required in all PPPs**
5. **Value for money is demonstrated**
6. **Remuneration of the private party may be directly from user charges, by payments from public agencies in the case of availability based PPPs, through exploitation of other assets or rights, or through some combination of these.**

# Risk issues

1. **Risk transfer is one of the major components through which PPP projects can generate better value-for-money.**
2. **Without sufficient transfer of appropriate risks from the public to the private sector, it is unlikely that a PPP project will achieve better value for money than traditional public procurement and delivery.**
3. **In principle, risk in a PPP should be allocated to the party who is best able to mitigate and manage that risk.**
4. **As PPP Projects normally last for a long period of time (full lifecycle), the project and project parties are exposed to different risk over a considerable period.**
5. **As such, risk should be correctly identified and allocated between parties during the procurement of the PPP project with consideration of the implications of these risks over the full project life.**

# Typical risks related to PPPs include

1. **Public risks : political, administrative practices, change in laws and regulations, dispute resolution and enforcement;**
2. **Economic and financial risks: interest rate levels, macro events and development;**
3. **Market risks: demand forecasts, technology change;**
4. **Construction risks: timely completion, hazards, geology, force majeure;**
5. **Operations and maintenance risks: operation and life cycle cost;**
    1. **Environmental risks;**
    2. **Exchange rate and interest risk;**
    3. **Acceptability of user fees: e.g. price elasticity and willingness to pay.**

# Types of PPP

**There are three basic models of PPPs that will be applicable in Nepal, namely revenue based, availability based and hybrid types.**

**1. Revenue-based PPPs are PPPs**

**where the private party receives revenues solely from the direct collection of user charges. Revenue-based PPPs are expected to be applied in sectors where direct and clear user charges can be applied and collected, such as transport and similar infrastructure and services**

**2. Availability-based PPPs are PPPs**

**where the private party receives revenues from payments from the public partner or other government body.**

**Availability-based PPPs are expected to be applied in sectors where direct user charges are either impossible or undesirable (social sectors like health or education) or where the government itself is effectively the user (such as accommodation projects for government buildings, etc.).**

**3. Hybrid PPPs are PPPs**

**where the private party receives revenues through some combination of user charges and availability payments, and/or may obtain revenues by exploiting other assets or right.**

# Eligible Partners and their Roles

**The public and private partners are the eligible partners , which enter into PPP arrangements. The important role of citizens and civil society is also defined.**

**a) Public Partners**

**PPP arrangements under this policy framework are to be applied at the central and local levels in Nepal.**

**The public partners that are eligible to enter into PPP arrangements are :**

**National level ministerial and government departments individually or in inter-ministerial arrangements.**

**Public bodies, namely entities having majority shareholding of the government, e.g. Civil Aviation Authority, Electricity Authority etc.**

# Eligible Partners and their Roles

Federal/Regional level offices of the Government of Nepal.

– Local level public bodies, specifically district, municipal and VDC level government entities.

**b) Private Partners**

PPP projects require private partners to cover the multiple aspects of a project, potentially including design, construction, project management, financing, operation and maintenance.

The Government of Nepal recognizes the few domestic private parties in Nepal have experience in covering all project related activities, and that experience with fully integrated life cycle PPP projects is limited

It is also recognized that PPP projects are often undertaken by consortiums of private partners who collectivity mobilise the capacity required for the project.

– Private partners eligible to enter into PPP arrangements include:

Private enterprises: domestic or foreign. NGO/INGOs, Community based organizations CBO, Cooperative organizations.

# Sectors Covered for PPP Application

PPPs in Nepal will concentrate on infrastructure (energy, roads, bridges etc.) and public services sectors (i.e. health, éducation, solid waste management etc.).

However, the priority sectors will be as follows:

Physical infrastructure and transportation (roads, bridges, ports of all types)

Energy sector, both large scale hydro-power, rural energy and renewable energy

Information and communication sector

Environment sector, like solid waste management and water and sanitation

Basic services sector, like health and education

# Institutional and Management Arrangements

An appropriate institutional framework is required to advise and for the identification, appraisal, approval, monitoring and financing of PPP Projects at the different tiers of government, and across different sectors.

In this context, the institutional framework for PPP Projects in Nepal will be as follows:

**National, Federal-Regional Level and Public Bodies**

To facilitate and support the PPP activities of the national government, federal-regional governments (regional and departmental offices of the GoN) and for public bodies (Civil Aviation Authority, Electricity Authority, Nepal Tourism Board etc.), the following institutional arrangements will be made:

National PPP Coordination Committee (NPCC)

PPP Unit in PMO

PPP Cells in relevant line Ministries and implementing agencies

An independent PPP Centre

PPP Cell in the NPC

# Financial Measures to Promote PPP

There are several challenges in Nepal that impact on the financing of PPP projects.

Among other, the general economic weakness of Nepal with low income levels and relatively high proportion of the population living within or marginally above poverty levels means that many PPP projects will lack the market (user charge) revenues to be commercially viable business cases.

Similarly, the Government of Nepal itself has limited public resources due inter alia to the comparatively small focus in the country.

The domestic financial sector in Nepal lacks experience in providing project based financing, and general financial sector conditions limits the availability of domestic long term debt appropriate for project financing.

# Financial Measures to Promote PPP

For larger PPP projects, availability of sufficient domestic equity is also considered a limitation.

At the same time, the generally small size and underdeveloped nature of the Nepali infrastructure and services market and generally high risk perceptions (especially during the conflict period), has meant that few international commercial investors or debt providers are active in the market.

The role of international development financing institutions has been greater and is expected to play a key role going forward.

# Financial Measures to Promote PPP

Given these conditions, the Government recognises that additional government and public support may be required for PPP projects.

Such support can be provided in various (combined) ways, including subsidies, viability gap funding, performance guarantees, etc.

Such support is aimed to ensure PPP projects become financially viable to reduce the transaction cost burden of developing pathfinder PPP projects using good quality transaction advisors for line ministries and local government and to fill or bridge the gaps that exist with regard to long term finance currently being unavailable for infrastructure projects.

# Financial Measures to Promote PPP

In this context, the Government will further assess in consultation with domestic and international stakeholders the potential scope, feasibility and outline design of financial measures to promote and support PPPs.

This may come in the form of direct subsidies and/or viability gap funding for PPP projects, a project preparation facility and developing financing facilities that can provide for longer term financing.

# Procurement Procedures for PPP Projects

PPP projects will be procured in an open, public, transparent and competitive manner.

The procurement process for PPP projects will follow a two stage process, with pre-qualification of bidders, and procurement by qualified bidders.

For some PPP projects the procurement process may comprise a competitive dialogue component, in which a dialogue will take place between the procuring agent and private bidders concerning the project.

Unsolicited bids may be submitted to any line ministry, public body or municipality. On receiving an unsolicited bid, the ministry, public body or municipality will follow the procedures for procuring the PPP project as outlined in this proposal, with the exception that:

# Procurement Procedures for PPP Projects

Aspects of the unsolicited bid which are deemed confidential or proprietary by the contracting agency may be excluded from the procurement documentation provided to all bidders

The party which submitted the unsolicited bid may take part in the procurement.

The final approval of the large scale PPP projects will be done by the PPP Unit under PMO and other projects will be approved by the concerned ministries. The federal and local level approval authorities are to be decided later on.

# Implementation Aspect of the PPP Policy Framework

The Government of Nepal has established a Road Map for further development of the enabling framework of PPP projects in Nepal.

Within this context, the Government intends to work in an aligned way with key domestic and international stakeholders to further progress infrastructure and service delivery in Nepal through PPP.

The following measures will be undertaken immediately to initiate implementation and to further support PPP projects:

**i) PPP Projects**

Government of Nepal will undertake a process to identify priority PPP projects within the priority sectors identified,

Priority treatment will be given to priority PPP projects following provisions and procedures with possible direct support for development of identified PPP projects while wider institutional and other arrangements are being established.

# Procurement Procedures for PPP Projects

**ii) Legislative/regulatory initiatives**

Preparation of National PPP Policy and Guideline as per the framework,

Revision of the Private Financing in Build and Operation of Infrastructure (PFBOI) Act and/or preparation of a new PPP Act providing further basis for the provisions of this Policy frame work.

The existing legislative/regulatory provisions will be examined and analyzed, suggesting necessary revisions in the existing provisions or prepare a new PPP Act itself if necessary.

Revision of the Local Bodies Financial Administration Regulation 2064 (2007) to provide procurement procedures of PPPs.

**iii) Institutional Initiatives**

Establishment of the National PPP Policy Committee in the NPC,

Preparation of a business plan for, and subsequent establishment of and independent PPP Centre, Development of appropriate capacity within the Ministry of Finance,

Continuation of current PPP institutional arrangements at local level,

# Procurement Procedures for PPP Projects

**iv) Financial Initiatives**

Development of a business plan for a Viability Gap Fund, including funding and operational arrangements,

Development of a business plan and funding for a Project Preparation Facility,

Further review of financial sector conditions and definition of appropriate measures to promote financing of PPP projects.

**v) Training and Institutional Support**

Establishment of required training and institutional support for implementation of PPP projects.

# Constraints

Lack of institutional structure of public, private and cooperative sector partnership in the local bodies and lack of the provisions and clear policy to invest approach in the existing financial acts and regulations.

Lack of provision of investment by this approach in the institutional financial institutions.

Lack of conducive environment to attract the foreign investment,

Problems of capital accumulation because of weak capital market, and

Lack of a center to assist technically to the public and private sectors.

# Recent Initiatives

Recently, the GoN has established PPP Cell at the NPC and has planned to establish PPP Units in concerned ministries.

In the near future some small and do able PPP demonstration projects are going to be selected to implement the PPP projects

Furthermore, the GoN has decided to implement three big projects in Public Private and Peoples Partnership (PPPP) model :

- 1. Kathmandu- Hetauda Tunnel Road Project (60 Km)
- estimated cost 330 million US $,
- 2. Kathmandu- Tarai Fast Track Expressway Road (78 Km)
- Estimated construction cost 1 Billion US $ and
- 3. Budhi Gandaki Hydro Power Project.
- 4. Pokhara Cable Car Project.

# Conclusion

In spite of the acceptance of the PPP concept within the country, and progress with PPP projects at the local level, national level PPP projects and major PPP infrastructures projects are yet to emerge in Nepal.

Existing legal arrangements for private financing of infrastructures have to date not been successfully used.

The positive overtures from the government, the Nepali business community, and the international community with regard to PPPs are not being translated into tangible PPP projects.

The government acknowledges that both the public and private sectors in Nepal lack experience with structuring, procuring and managing PPP projects. It is therefore necessary to improve the enabling environment through the review of PPP procurement procedures and other related legislation in Nepal, the introduction of clear, consistent and transparent procedures and development of strong contractual arrangements. These will help build the PPP market in Nepal and to achieve market conditions and levels of confidence in which significant PPP projects can be implemented involving potential domestic and international operators and investors.