



# Technical Assistance Report

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Project Number: 41025  
December 2007

## Nepal: Promoting Private Sector Participation in the Power Sector

Asian Development Bank

## CURRENCY EQUIVALENTS

(as 18 October 2007)

Currency Unit	–	Nepalese rupee/s (NRe/NRs)
NRe1.00	=	\$.01583
\$1.00	=	NRs63.28

## ABBREVIATIONS

ADB	–	Asian Development Bank
BOO	–	build-own-operate
DOED	–	Department of Electricity Development
EA	–	executing agency
EIA	–	environmental impact assessment
MOWR	–	Ministry of Water Resources
MW	–	megawatt
NEA	–	Nepal Electricity Authority
PPP	–	public–private partnership
PSP	–	private sector participation
SARD	–	South Asia Department
TA	–	technical assistance

## TECHNICAL ASSISTANCE CLASSIFICATION

<b>Targeting Classification</b>	–	General intervention
<b>Sector</b>	–	Energy
<b>Subsector</b>	–	Hydropower generation
<b>Themes</b>	–	Sustainable economic growth; governance; and private sector development
<b>Subthemes</b>	–	Public-private partnerships

## NOTES

- (i) The fiscal year (FY) of the Government of Nepal ends on 15 July.
- (ii) In this report, "\$" refers to US dollars.

<b>Vice President</b>	L. Jin, Operations 1
<b>Director General</b>	K. Senga, South Asia Department
<b>Director</b>	T. Kandiah, Energy Division, SARD
<b>Team Leader</b>	N. Tas Anvaripour, Senior Finance Specialist (Energy), SARD

## I. INTRODUCTION

1. During the discussions for the Country Operations Business Plan 2007–2009, the Government of Nepal requested technical assistance (TA) from the Asian Development Bank (ADB) to enhance private sector participation (PSP) in Nepal's power sector. ADB conducted a fact-finding mission 21–26 September 2007 and reached an understanding with the Government on the TA's objective, scope, cost estimates, financing, implementing arrangements, and consultants' terms of reference. The design and monitoring framework is in Appendix 1.<sup>1</sup>

## II. ISSUES

2. ADB's country strategy for Nepal addresses poverty reduction through sustainable economic growth, social development, good governance, environmental management, and private sector development. In particular, hydropower development for export can play a vital role in generating employment and supporting income growth, human resource development, capacity building, and sustainable management of natural resources.

3. Nepal's power sector is characterized by undelivered potential, as estimates place its commercially exploitable hydropower potential at around 43,000 megawatts (MW). A significant economic opportunity for Nepal exists in electricity export, especially in the context of the South Asia region, which possesses a net power deficit. In particular, India's ever-growing demand for power means that it could be a major purchaser of power from its neighboring countries. However, this potential remains largely untapped, and Nepal is a net importer of electricity from India—during the December 2006 winter peak, Nepal imported peak power of 94 MW from India.

4. Government resources in Nepal are not available to finance large export-oriented hydropower projects or those for its power-deficit domestic market. For this reason, PSP is an integral part of the Government's development framework to achieve its medium- and long-term economic growth and poverty reduction objectives. PSP will facilitate Nepal earning foreign exchange from electricity exports while addressing the domestic power deficit. In addition, a major increase in fiscal revenue will fund service delivery and basic infrastructure in the fields of health, education, and other social sectors.

5. With a view to unlock the power sector's potential, the Government has taken some steps to attract private investment. However, with the exception of some run-of-river hydropower plants funded by domestic investors, little private investment has occurred. Reasons include (i) lack of transparency and accountability in the licensing process, (ii) incompatibilities and inconsistencies in legal and regulatory frameworks, (iii) difficulties in raising non-recourse finance, (iv) issues over the transparency of buy-back rates for hydropower projects, (v) inadequate transmission and distribution networks to evacuate and deliver power, (vi) lack of cogent power export policy, and (vii) political risk.

6. Build-own-operate-transfer is the main modality used for power generation. The main rationale for adopting this approach in hydropower is that the hydropower resource, e.g., the river site, should not be given to a private party in perpetuity. Leasing is another modality being used for PSP; however, as a modality, it has limited appeal as it does not remove the Government's burden to provide capital for investment. Therefore, consideration must be given to other modalities, such as license renewal granted on a performance basis, which would give

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<sup>1</sup> The TA first appeared in *ADB Business Opportunities* on 16 October 2007.

independent power producers and developers an added incentive to invest further in the asset and maintain it during the initial licensing period.

7. The Government currently proposes a provision for the licensing of transmission lines on the principle of build-own-operate (BOO) for 30 years with a condition to renew the license. Consideration is also being given to applying this modality to power distribution, particularly in urban areas. Under the BOO modality, the Nepal Electricity Authority (NEA) or a successor company would continue to build distribution networks and then lease them out on an operating basis to private entities. The local distribution networks would be leased out to community-based organizations, as is already occurring through NEA's Community and Rural Electrification Department.

8. The power sector, with its significant potential to contribute to economic development, must be effectively managed to maximize its role in poverty reduction. To this end, the Government recognizes that it should focus on planning, structuring, and regulation while the private sector should specialize in investment, construction, financing, and management. In addition, because PSP is needed to meet the power sector's critical need for rehabilitation and expansion, the Government must improve the existing framework to encourage PSP toward sustainable sector development. The institutional arrangements for designing, implementing, and managing the public-private partnerships (PPP) and suitable PPP modalities must be reexamined.

9. The challenge for the Government is to ensure that PSP in the power sector leads to efficient sector development. For this objective, it intends to review existing policies and regulations and to introduce new legislation to create and maintain an enabling environment for PSP. The Government has requested ADB assistance in this regard.

### **III. THE TECHNICAL ASSISTANCE**

#### **A. Impact and Outcome**

10. The TA will assist the Government in (i) formulating investor-friendly PSP policy, (ii) enforceable regulations that will be tailored to the market's needs, and (iii) building capacity to design and appraise PSP. As a result, increased PSP in the power sector will facilitate efficient sector development. Nepal will earn foreign exchange from electricity exports and address the domestic power deficit. In return, a major increase in fiscal revenue will fund service delivery and basic infrastructure augmentation.

#### **B. Outputs**

11. Specific outputs expected from this TA include:

- (i) a PSP framework for domestic and export-oriented hydropower projects, identifying institutional responsibilities and the basis for seeking PSP;
- (ii) a set of draft PPP competitive bidding guidelines for approval by the sector's regulator, including draft standard PPP bidding documents, pro forma requests for proposals, and requests for quotations for competitive bidding processes;
- (iii) capacity building and training and workshops in bid process management, PSP policy framework, and the requirements for successful implementation of private sector investments; and

- (iv) A methodology for environmental impact assessment of private sector hydropower projects.

### **C. Methodology and Key Activities**

12. The TA will review the legislative and regulatory environment for PSP and assess the current status of PSP in generation, transmission, and distribution. It will then create a comprehensive PSP framework in domestic and export-oriented hydropower projects, identifying institutional responsibilities and the basis for seeking PSP. It will recommend changes to legislative, regulatory, and procedural PSP frameworks and processes, and assist the Government with their implementation. It will also assist in the promotion of specific PSP opportunities, the preparation of tender documents, and the evaluation of tenders.

13. Key activities will include:

- (i) reviewing and analyzing current obstacles to PSP;
- (ii) providing and analyzing PPP models in terms of risk mitigation and cost sharing;
- (iii) recommending revisions and updates of policies, legislation, and regulations related to PSP;
- (iv) proposing institutional arrangements for designing, implementing, and managing the PPPs;
- (v) capacity building and guidance to Department of Electricity Development (DOED) staff and relevant stakeholders, through on-the-job training and workshops, on PSP policy frameworks and the requirements for successful promotion and implementation of private investment projects in the power sector;
- (vi) preparing draft competitive bidding guidelines for approval by the sector regulator, including draft standard bidding documents for competitive bidding processes, pro forma requests for proposals, and requests for quotations;
- (vii) training the Government in bid process management, including preparation of tender documents, evaluation of tenders, and negotiation of contracts for specific PSP projects;
- (viii) reviewing relevant environmental legislation, and outlining a methodology for undertaking strategic environmental assessment of energy sector programs that would facilitate meaningful stakeholder participation and interaction; and
- (ix) assisting the Government in preparation of tender documents, evaluation of tenders, and negotiation of contracts for specific PSP projects.

14. No major risks are associated with the TA, and the Government has expressed its strong support.

### **D. Cost and Financing**

15. The total cost of the TA is estimated at \$700,000 equivalent. ADB will finance \$600,000 on a grant basis from ADB's TA funding program. The Government will finance the remaining \$100,000 equivalent in-kind through the provision of office space, office equipment, and local transportation in Kathmandu. The details of cost estimates are in Appendix 3.

## E. Implementation Arrangements

16. The Executing Agency (EA) will be the Ministry of Water Resources (MOWR), which will establish a steering committee consisting of senior staff from the Ministry of Finance and MOWR. The committee will meet on a quarterly basis to oversee TA activities. DOED will be the Implementing Agency, which will appoint a senior staff member as the project director. In addition, a project management office will be established in DOED, which will be responsible for the day-to-day management of the TA and coordination with all government and nongovernment stakeholders. This office will also oversee consultants' activities and facilitate ADB's TA administration.

17. The EA and DOED will provide (i) office accommodation and facilities, Internet access, and secretarial support; and (ii) land transportation within Nepal for consultants. The EA, DOED, and other agencies concerned will also provide the consultants with existing data, preliminary analysis, and reports, and will guide consultants in data collection through liaising with other ministries and agencies. MOWR, DOED, other relevant agencies, and consultants will jointly organize dissemination workshops for counterpart staff and other stakeholders. The EA will ensure close coordination with consultants of various ongoing TAs of ADB or other development partners and will incorporate lessons from past TAs of ADB and other development partners in the power sector. The consultants will organize workshops, seminars, and meetings to brief stakeholders and receive feedback on the policy update, PPP guidelines, and the proposed PPP models in collaboration with ADB, MOWR, and DOED. The consultants will be accountable to both ADB and the EA.

18. The TA will finance the services of international consultants for a total of 17 person-months and national consultants for a total of 17 person-months. A consulting firm or consortium of firms will be engaged by ADB in accordance with its *Guidelines on the Use of Consultants* (2007, as amended from time to time). Recruitment of consultants will be under the quality- and cost-based selection process, and simplified technical proposals will be requested. A standard quality–cost ratio of 80:20 will be used.

19. The TA will commence in March 2008 and will be completed by the end of July 2009. The international consulting team will consist of the following experts: (i) power sector development expert, (ii) project financing expert, and (iii) institutional development expert. They will be supported by a national consulting team consisting of (i) legal counsel, (ii) power sector development specialist, and (iii) environmental specialist. The outline terms of reference for the consultants are in Appendix 4.

20. The consultants will prepare monthly status reports for their specific scope of work, highlighting any issue that could become critical for the TA's timely implementation and completion. An inception report, which summarizes the current obstacles to PSP, and a time-bound action plan, which details recommendation to overcome these obstacles, will be submitted 2 weeks after the commencement of their services. The inception report will also include the consultants' proposed action plan. An interim report will be submitted within 6 months after inception, and a draft final report will be submitted within 10 months after inception. The first tripartite meeting in Kathmandu between the Government, ADB, and consultants will review the inception report within 3 weeks of receiving it. An interim report will describe the TA's progress, person-months utilized, problems encountered, and proposed revision of the work plan, and will incorporate detailed reports on completion of the current policy analysis. A draft final report will detail consultants' findings and recommendations. The second tripartite meeting will review the interim report, and the third tripartite meeting will review the draft final report. The

consultants will organize (i) two workshops after the second and third tripartite meetings to brief stakeholders and receive their feedback on the policy update, PPP guidelines, and models; and (ii) a seminar at the conclusion of the TA to disseminate the findings. The final report will be submitted within 4 weeks after the tripartite review of the draft final report.

21. The power sector development expert will assist the Government in preparation of tender documents, evaluation of tenders, and negotiation of contracts for specific PSP projects on an intermittent basis; therefore, this expert's responsibilities will continue after the final report. The power sector development expert will maintain monthly reporting on his/her activities until the completion of the TA.

#### **IV. THE PRESIDENT'S DECISION**

22. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$600,000 on a grant basis to the Government of Nepal for Promoting Private Sector Participation in the Power Sector, and hereby reports this action to the Board.

## DESIGN AND MONITORING FRAMEWORK

<b>Design Summary</b>	<b>Performance Targets/Indicators</b>	<b>Data Sources/Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
<p><b>Impact</b></p> <p>Increase in fiscal revenue funds, service delivery, and basic infrastructure in the fields of health, education, and other social sectors</p> <p>Economic development</p>	<p>Per capita gross domestic product increasing by at least 6% per year by 2010</p>	<p>Government economic reports</p> <p>ADB estimates</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Government's commitment to improve governance</li> <li>• Restoration and maintenance of law and order in the country</li> <li>• Complementary development of other infrastructure</li> </ul>
<p><b>Outcome</b></p> <p>Increased PSP in power sector</p>	<p>Private sector contributing 30% of cumulative capital investment in the power sector, 2009–2015</p>	<p>DOED and Government annual reviews and reports</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Availability of public funds for co-investment</li> <li>• Timely approvals by public offices in accordance with regulatory frameworks</li> </ul>
<p><b>Outputs</b></p> <ol style="list-style-type: none"> <li>1. Policy, legislative, and regulatory framework for PSP in domestic and export-oriented hydropower projects</li> <li>2. Draft competitive bidding guidelines, including draft pro forma bidding documents and requests for proposal and quotations</li> <li>3. Capacity building in bid process management, PSP policy frameworks, and implementation of private sector projects</li> <li>4. Methodology for EIA of private sector projects</li> </ol>	<p>Successful negotiation of at least 1 pilot PPP project, in accordance with revised frameworks, bidding documents, and EIA methodology</p> <p>A pipeline of at least 3 realistic medium- to large-scale private sector hydropower transactions</p>	<p>TA final report</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Required public consultations and disclosures completed in a timely manner</li> <li>• Willingness and ability of private parties to enter contracts</li> </ul> <p><b>Risk</b></p> <ul style="list-style-type: none"> <li>• Political interference in revision of regulatory and legislative frameworks</li> </ul>

<b>Activities with Milestones</b>	<b>Inputs</b>
<ol style="list-style-type: none"> <li>1.1 Review and analyze current obstacles to PSP 2 weeks after the commencement of consultant services.</li> <li>1.2 Provide and analyze PPP models in terms of risk mitigation and cost-sharing by April 2008.</li> <li>1.3 Recommend revisions and updates to relevant policy, legislation, and regulations by June 2008.</li>   <li>2.1 Undertake capacity building, and provide guidance to DOED staff and relevant stakeholders, through on-the-job training and stakeholder workshops, on PSP policy frameworks and the requirements for successful promotion and implementation of private investment projects in the power sector throughout the TA's duration.</li> <li>2.2 Prepare draft competitive bidding guidelines for approval by the sector regulator, including draft standard bidding documents for competitive bidding processes, and pro forma requests for proposals and requests for quotations by July 2008.</li> <li>2.3 Provide training to the Government in bid process management, including preparation of tender documents, evaluation of tenders, and negotiation of contracts for specific PSP projects throughout the duration of the TA.</li> <li>2.4 Review relevant environmental legislation, and outline a methodology for undertaking strategic EIA of energy sector programs that would facilitate meaningful stakeholder participation and interaction by September 2008.</li> <li>2.5 Provide assistance to the Government for preparation of tender documents, evaluation of tenders, and negotiation of contracts for specific PSP projects throughout the duration of the TA.</li> </ol>	<ul style="list-style-type: none"> <li>• ADB: \$600,000</li> <li>• Government: \$100,000</li> </ul>

ADB = Asian Development Bank, DOED = Department of Electricity Development, EIA = environmental impact assessment, PPP = public-private partnership, PSP = private sector participation, TA = technical assistance

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DIRECTOR, SAEN

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DIRECTOR GENERAL, SARD

## INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title:	Nepal: Promoting Private Sector Participation in the Power Sector		
Lending/Financing Modality:	ADTA	Department/Division:	South Asia Department/ Energy Division

### I. POVERTY ISSUES

#### A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

1. The ADB Country Strategy and Program for Nepal addresses poverty reduction through sustainable economic growth, social development, good governance, environmental management, and private sector development. In particular, hydropower development for export will play a vital role in achieving the Government's goals to generate employment and support income growth, human resource development, capacity building, and sustainable management of natural resources.

To date, however, the potential remains largely untapped, and Nepal is a net importer of electricity from India—during the December 2006 winter peak, Nepal imported peak power of 94 MW from India.

Government resources are not available to finance large export-oriented hydropower projects. PSP will facilitate Nepal earning foreign exchange from electricity exports, which will provide a major increase in the fiscal revenue needed to fund service delivery and basic infrastructure in the fields of health, education, and other social sectors.

#### B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention    Individual or Household (TI-H);    Geographic (TI-G);    Non-Income MDGs (TI-M1, M2, etc.)

2. Explain the basis for the targeting classification:

This TA will assist the Government in formulating investor-friendly PSP policy and enforceable regulations that will be tailored to the market's needs. PSP will be increased in Nepal's power sector, and this will facilitate the efficient development of the power sector. No direct impact on poverty is foreseen.

#### C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed?

2. What resources are allocated in the PPTA/due diligence? This is not a PPTA.

3. If GI, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross subsidy, pro-poor governance, and pro-poor growth)?

Impacts on the poor are expected in the long term, as the Government will benefit from increased capacity. This will facilitate the efficient development of the power sector and will benefit different sectors of society. In particular, the poor will benefit directly as they will have access to more reliable electricity, and indirectly as the economy will increase its productivity and better social infrastructure.

### II. SOCIAL DEVELOPMENT ISSUES

#### A. Initial Social Analysis

Based on existing information:

1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project?

The Government is the primary beneficiary of the project. The poor and the socially excluded will benefit from the project in the long term, when the increased capacity will improve the access to better and more reliable quality of energy to the entire population.

2. What are the potential needs of beneficiaries in relation to the proposed project? None.

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them? N/A

**B. Consultation and Participation**

1. Indicate the potential initial stakeholders. The Government and private sector companies.
2. What type of consultation and participation (C&P) is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations and community-based organizations, etc.)? N/A
3. What level of participation is envisaged for project design?  
 Information sharing     Consultation     Collaborative decision making     Empowerment
4. Will a C&P plan be prepared?  Yes     No    Please explain. Not needed, it is ADTA.

**C. Gender and Development**

1. What are the key gender issues in the sector/subsector that are likely to be relevant to this project/program? None.
2. Does the proposed project/program have the potential to promote gender equality and/or women's empowerment by improving women's access to and use of opportunities, services, resources, assets, and participation in decision-making?  
 Yes     No.
3. Could the proposed project have an adverse impact on women and/or girls or to widen gender inequality?  
 Yes     No.

**III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS**

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
<b>Involuntary Resettlement</b>	None	No impact	<input type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input type="checkbox"/> Resettlement Framework <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Indigenous Peoples</b>	None	No impact	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Labor</b> <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	Only indirectly as a result of the increased capacity.		<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Affordability</b>	None	No impact	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Other Risks and/or Vulnerabilities</b> <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human Trafficking <input type="checkbox"/> Others (conflict, political instability, etc.), please specify	None	No impact	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain

**IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT**

1. Do the TOR for the PPTA (or other due diligence) include poverty, social and gender analysis and the relevant specialist/s?  
 Yes       No    Given the nature of the project, no Poverty specialist is required.
2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social and/or gender analysis, and C&P during the PPTA/due diligence?     Yes       No    This is an ADTA.

ADB = Asian Development Bank, MW = megawatt, PSP = private sector participation, TA = technical assistance.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

<b>Item</b>	<b>Total Cost</b>
<b>A. Asian Development Bank Financing<sup>a</sup></b>	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	370.0
ii. National Consultants	70.0
b. International and Local Travel	55.0
c. Reports and Communications	10.0
2. Seminars, Workshops, and Training	30.0
3. Miscellaneous Administrative Costs	20.0
4. Contingencies	45.0
<b>Subtotal (A)</b>	<b>600.0</b>
<b>B. Government Financing<sup>b</sup></b>	
1. Office Accommodation and Transport	60.0
2. Remuneration and Per Diem of Counterpart Staff	20.0
3. Other	20.0
<b>Subtotal (B)</b>	<b>100.0</b>
<b>Total</b>	<b>700.0</b>

Source: Asian Development Bank estimates.

a The technical assistance amount will be financed from ADB's technical assistance funding program.

b The Government's contribution will be in the form of office space, transportation, and counterpart staff.

## **OUTLINE TERMS OF REFERENCE FOR CONSULTANTS**

### **A. Introduction**

1. The Department of Electricity Development (DOED) will promote private sector participation (PSP) in Nepal's hydropower sector in order to harness the country's significant hydropower potential. DOED will award projects through a competitive bidding process. Consultants will be engaged to develop and implement a competitive bidding framework for successfully implementing PSP in the hydropower sector.

### **B. Scope of Work**

2. The international power sector development specialist, who will also serve as a technical expert, will be the team leader responsible for the study's overall management. The team leader will coordinate the technical assistance (TA) among all government agencies, Asian Development Bank (ADB), and other development partners to ensure smooth implementation and non-duplication of work, and will ultimately be responsible for all deliverables. Other consultants will assist the team leader in these tasks as specified in the following paragraphs. The team leader will also closely coordinate with the consulting teams of other relevant TAs of ADB and development partners.

3. The consulting firm to be engaged under the TA will provide experts with relevant experience in developing policy for promoting PSP and public-private partnership (PPP), power sector reform, relevant legal and regulatory frameworks, financial structuring, and Nepal's power sector.

4. In close collaboration with the Ministry of Water Resources (MOWR), DOED, other relevant agencies, and the steering committee to be established by the Government, the consultants will undertake, but not be limited to, the following tasks.

#### **1. Power Sector Development Expert and Team Leader (international, 8 person-months)**

- (i) Review and analyze existing power sector policies, including the 2001 Hydropower Policy and various draft policies under discussion, the legal and regulatory environment, enforceability of legal and regulatory documents, and other issues and constraints that private investors and financiers may face.
- (ii) Summarize the policy and regulatory framework related to PSP and PPP in the power sector of developed countries and other developing countries in the region, conduct a comparison analysis, identify best practices, and analyze their applicability to Nepal focusing on the hydropower sector.
- (iii) Consult with various stakeholders, including the Government, its agencies, consumers, potential international and domestic private investors and financiers, and development partners; and examine and summarize their views and suggestions on promoting PSP and PPP in the hydropower sector.
- (iv) Review existing procedures and practices of the Government for processing and implementation of PPP projects to identify measures in improving their efficiency.

- (v) Based on the above analysis, prepare recommendations for updating the 2001 Hydropower Policy, draft Electricity Act 2005, and relevant laws and regulations to promote PSP and PPP modalities in the hydropower sector.
- (vi) Recommend roles and responsibilities of different government departments and power sector entities as well as the organizational setup to promote PSP and implement PPP projects efficiently and effectively.
- (vii) Develop PPP guidelines in line with the suggested draft Electricity Act 2005 and 2001 Hydropower Policy updates to guide relevant authorities in identification, due diligence review, bidding and contract awarding, and implementation of PPP projects. Such PPP guidelines should cover, but not be limited to, the following subjects: (a) clear delineation of responsibilities between the Government and private participants under each PPP structure, (b) bidding procedures and key criteria in selecting private participants, (c) revenue or return sharing and risk allocation mechanisms between the Government and private participants, (d) basis and factors to be considered for project finance, and (e) legal issues that must be considered when drawing up various kinds of agreements and other legal documents governing the relationship.
- (viii) Examine and recommend suitable institutional arrangements for designing, implementing, and managing the PPPs.
- (ix) Recommend a coordination mechanism and implementation process, with references to the PPP guidelines, for preparing, assessing, and implementing PPP projects.
- (x) Organize workshops, seminars, and consultation meetings to brief stakeholders and to receive their feedback on the policy update, PPP guidelines, and the proposed PPP models in collaboration with ADB, MOWR, DOED, and other relevant agencies.
- (xi) Develop draft competitive bidding guidelines and bidding documents that can be adopted by DOED.
- (xii) Prepare a report that summarizes findings on the issues above, and act as a resource for such seminars and workshops in Kathmandu.
- (xiii) Assist MOWR and DOED in preparing tender documents, evaluating tenders, and negotiating contracts for specific PSP projects.

## **2. Project Financing Expert (international, 6 person-months)**

- (i) Conduct diagnostic analysis of all the independent power producers, small power plants, and PPP projects that have been planned or are operating in the power sector since 1991; summarize their scope, financial structure, and issues; and evaluate successes or failures of project design, implementation, and operation.
- (ii) Analyze bottlenecks and constraints at the stage of financial structuring, contract awarding, construction, and operation.
- (iii) Summarize international best practices in financing the structuring of PPP projects in the power sector in both developing and developed countries, including mitigation of a variety related to PPP project and contract award methodologies to avoid unnecessary interventions and improve transparency and competition. Draw any lessons that can be applicable to Nepal.

- (iv) Analyze how products and services of development partners, including ADB, can be utilized in financial structuring for potential PPP projects.
- (v) Provide PPP models, which are suitable for Nepal, in the power sector. Each PPP model should include, but not be limited to, the following items: (a) clear delineation of responsibilities between the Government and private participants under each PPP structure, (b) bidding procedures and key criteria in selecting private participants, (c) revenue or return sharing and risk allocation mechanisms between the Government and private participants, (d) basis and factors to be considered for project finance, and (e) legal issues that must be considered when drawing up various kinds of agreements and other legal documents governing the relationship.
- (vi) In consultation with the relevant power sector entities, prepare a time-bound road map to implement these models for specific projects.
- (vii) Assist MOWR and DOED in preparing tender documents, evaluating tenders, and negotiating contracts for specific PSP projects.

### **3. Institutional Development Expert (international, 3 person-months)**

- (i) Describe the role and responsibilities of the various sector institutions, their relationships, and the relationship to DOED and MOWR as the Executing Agency (EA).
- (ii) Undertake a skills and resource audit of the EA to identify areas that need to be strengthened to implement PSP policies, and design a capacity-building program identifying components such as on-the-job training for DOED staff and stakeholder workshops involving DOED and other institutions.

### **4. Power Sector Development Expert (national, 8 person-months)**

- (i) Assist the international power sector development expert in conducting all the relevant tasks stated previously, especially in collecting relevant data and information and consultations with various domestic stakeholders; and
- (ii) Assist the institutional development expert in interactions with institutions and design of training programs.

### **5. Legal Expert (national, 3 person-months)**

- (i) Draft changes to be incorporated in existing policies, laws, and regulations to facilitate introduction of PPP models.
- (ii) Review and analyze related laws and regulations, with a perspective on the state of crucial laws and their key elements such as those related to property rights, contractual rights, law of associations, and others.
- (iii) Analyze costs of doing business and transactions; the capacity and quality of the public institutions responsible for planning and implementing the policy, laws, and regulations; and perspective on state of crucial laws and their key elements such as those related to property rights, contractual rights, law of associations, and others.

- (iv) Review draft bidding documents from a legal perspective.

**6. Financial Expert (national, 4 person-months)**

- (i) Assist the international power sector development expert in conducting all the relevant tasks stated previously, especially in collecting relevant data and information and consultations with various domestic stakeholders.
- (ii) Assist the international project finance expert in conducting all the relevant tasks stated previously, especially in collecting relevant data and information and consultations with various domestic stakeholders.
- (iii) Review draft bidding documents from a legal perspective.
- (iv) Examine sector-related governance issues, and prepare recommendations.
- (v) Assist MOWR and DOED in preparing tender documents, evaluating tenders, and negotiating contracts for specific PSP projects.

**7. Environmental Expert (national, 2 person-months)**

- (i) Assess national energy policies and programs to improve the environment.
- (ii) Assess the potential environmental impacts of strategic alternatives, including the effects of dam construction on the local populace, with a special emphasis on population displacement.
- (iii) Review environmental standards applicable to the energy sector, and assess actual compliance and steps taken to enhance compliance.
- (iv) Outline a methodology for undertaking strategic environmental assessment of energy sector programs that would facilitate (a) meaningful participation of environmental authorities, nongovernment organizations, and other stakeholders in the preparation of the strategic environmental assessment; (b) identification of potential conflicts among the groups; and (c) systematic efforts to resolve potential environment conflicts relating to the strategic alternatives.