

## **Private Sector Hydropower Development Project – 2 (PSHDP-2)**

USAID-HMGN•SO6 - Increased Private Sector Participation in Environmentally  
and Socially Sustainable Hydropower Development

### **SEMI-ANNUAL REPORT #8**

July 1, 2005 through December 31, 2005

**Prepared for:**

**USAID Mission to Nepal**

**Contract No. 367-C-00-02-00011-00**

**International Resources Group**

DOED Building, Anam Nagar

Kathmandu, Nepal

Advance Draft, October 26, 2005

Final Draft January 31, 2006

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**Contract No:** 367-C-00-02-00011-00

**Reporting Period:** July 1, 2005 through December 31, 2005

## Acronyms and Abbreviations

ACN	AC Nielson -Marg Nepal Pvt. Ltd
ADB	Asian Development Bank
AIP	Activity Implementation Plan
BPC	Butwal Power Company
CLIN	Contract Line Item
CTO	Cognizant Technical Officer
DFC	Draft Finalization Committee
DOED	Department of Electricity Development
EA	Electricity Act
EIA	Environmental Impact Assessment
ETFC	Electricity Tariff Fixation Commission
HMGN	His Majesty's Government of Nepal
ICIMOD	International Centre for Integrated Mountain Development
IPP	Independent Power Producer
IPPAN	Independent Power Producer's Association of Nepal
IR	Intermediate Result
IRG	International Resources Group,
MOEST	Ministry of Environment, Science and Technology
MOFSC	Ministry of Forest and Soil Conservation
MOLD	Ministry of Local Development
MOWR	Ministry of Water Resources
NCL	Nepal Consult Limited, JV
NEA	Nepal Electricity Authority
NERC	Nepal Electricity Regulatory Commission
NHMS	Nepal Hydropower Management System
PDF	Power Development Fund
PIC	Public Information Center
POP	Public Outreach Program
PPA	Power Purchase Agreement
PSHDP-2	Private Sector Hydropower Development Project - 2
RFP	Request for Proposal
RFQ	Request for Qualification
SO	Strategic Objective
SOT	Strategic Objective Team
TA	Technical Assistance
TL	Transmission Line
USAID	U. S. Agency for International Development
WEC	Water and Energy Commission
WP	Work Plan, 2005

## **SECTION I – Contractor’s Report**

### **I.1. Summary and Highlights of Activities**

#### **A. Introduction**

Primary objective of International Resources Group’s (IRG) contract is to provide technical assistance and associated training services to the Department of Electricity Development (DOED) of the Ministry of Water Resources (MOWR) and other agencies of the His Majesty’s Government of Nepal (HMGN) to increase private sector participation in hydropower development, in support of US Agency for International Development (USAID) – HMGN Strategic Objective 6 (SO6).

The current contract is referred to as Private Sector Hydropower Development Project – 2 (PSHDP-2). The scope of work under PSHDP-2 comprises 26 interrelated activities to support SO6. To facilitate management and improve resource use efficiency, IRG has divided these 26 activities under the following six broad categories:

- Policy, Legal, Regulatory, and Institutional Strengthening;
- Power Marketing;
- Project Finance;
- Public Outreach;
- Environmental (and Social) Impact Assessment; and
- Training Support.

In order to manage these activities, IRG developed 13 Activity Implementation Plans (AIPs). As agreed to with USAID and DOED, we used our AIP system to develop our work plan for 2005 (WP, WP 2005). We have reported our progress in this report using the same AIP system. We have related 26 contract activities to the AIPs for ease of reference to our contract requirements.

A summary of major accomplishments during the reporting period is provided below in Section B. Section I.2 provides details of the expected results and progress indicators under PSHDP-2. Section I.3 provides functional description of actions undertaken during the reporting period to achieve our goals. In Section I.4, we discuss our progress during the reporting period under each of the 26 contract activities. Project personnel, cost, and performance data is presented in Section I.5. Section II includes USAID Cognizant Technical Officer’s (CTO) report covering the reporting period.

#### **B. Summary of major accomplishments during reporting period**

Major milestones, activities, and events during the reporting period are listed below:

- Prepared and submitted draft outline documents for NEA Board reform to DOED on September 16 [WP item 8.1.1; AIP 1.1]
- Provided comments to DOED on the revised draft Electricity and NERC Ordinances prepared by MOWR’s Working Team; organized logistics for meetings of MOWR’ Draft Ordinances Finalization Committee (DFC), September 15-16; provided support to daily meetings of the DFC during September and October 2005; reviewed the draft prepared by the DFC and provided comments to DOED for further revisions; facilitated briefing meetings with the Assistant

Minister and Secretary of Ministry of Water Resources on draft Electricity and NERC Ordinances on November 21 and 23; upon the Secretary's request, submitted on November 25, IRG's previous significant comments for reconsideration and for inclusion in the final draft; the MOWR submitted the final draft Ordinances on December 9 to the Cabinet to initiate the legislative process; the Cabinet has agreed, in principle, to legislate the Ordinances and has initiated the process for legislation [WP items 8.1.1, 8.1.2; AIPs 1.1, 1.2]

- Provided revised Project Agreement document and comments on NEA's model PPA for Kabeli A hydro project to DOED on September 29; [WP item 8.3.2; AIP 8.1]
- Following USAID approval of the task, held initial meetings with several NEA departments to collect data for the TL study; Charles Ebinger, Reji Rejikumar, and Krish Krishnan held meetings with key Indian stakeholders including Confederation of Indian Industries and Tata Power Company in Mumbai, the Ministry of Power, Central Electricity Regulatory Commission, Power Grid Corporation of India, Reliance Industries, Power Trading Corporation of India, General Electric India, Independent Power Producers Association of India and others in New Delhi, to assess interest in cross-border power trade and in private investment in power generation and transmission facilities for such trade; David Saul, Toby Manning, Reji Rejikumar, and Charley Ebinger were in Kathmandu between November 20 and December 9 to collect data and meet with stakeholders as part of the Transmission Line Study; a stakeholder workshop on TL Study was conducted on November 25 [WP item 8.1.5, AIP 26.1]
- Submitted to DOED Draft Manual for Baseline Information Impact Analysis and Mitigation Measures for EIA of Hydropower Projects on July 19; DOED provided comments on November 18; revision of the Manual to address DOED comments is underway [AIP 20.1]
- Coordinated with the Ministry of Forest and Soil Conservation (MOFSC) for approval for conducting field studies for the Khare Khola and Maya Khola projects on September 9; DOED completed its review of the Scoping Document and the TOR for the projects and forwarded to MOWR for approval on September 20; MOWR processed the documents and approved the documents for transmittal to the Ministry of Environment, Science and Technology (MOEST) on November 24 and December 8 respectively for the two projects; MOEST review is underway [AIP 26.1]
- Held several meetings with International Centre for Integrated Mountain Development (ICIMOD) and DOED to develop a GIS database for hydropower development and associated training for HMG staff. A statement of work for ICIMOD was prepared. A proposal from ICIMOD is expected in January 2006
- At the request of DOED, reviewed ADB consultant, British Power International's Inception Report on creation of NEPGRID and provided comments to DOED on October 5.
- Executed a subcontract with AC Nielson Nepal Pvt. Ltd (ACN) to conduct research studies for the public outreach program (POP); reviewed and finalized quantitative and qualitative survey instruments and field plans prepared by IRG's subcontractor, ACN, for market research on Oct 20; ACN has substantially completed field survey and focus group discussions [WP item 8.4.1; AIP 2.1]

- Developed and distributed on December 8, a questionnaire to assess the availability and usefulness of environmental Manuals published by MOWR/DOED under PSHDP [WP item 8.5.1; AIP 20.1]
- Significantly upgraded DOED website to facilitate easy maintenance by DOED staff; initiated training of DOED staff on updating and maintaining the website [WP Item 8.1.2, AIP 1.2]
- Submitted draft final report on Feasibility and EIA of Maya Khola prepared by IRG subcontractor, Nepal Consult, to DOED for review on December 1; IRG and DOED review is underway [WP item 8.1.5, AIP 26.1]
- Discussed with Winrock and USAID on Media Training activity as part of the POP; IRG will utilize experts from the Independent Power Producers Association of Nepal (IPPAN) and other stakeholders or consultants to provide training in 2006 [WP item 8.4.1; AIP 2.1]
- Submitted to DOED on November. 8, a draft Discussion Paper to improve implementation of one window policy to facilitate a stakeholder workshop
- Assisted USAID to conduct its annual verification/audit of Non-Expendable Commodities on November 30; the audit found IRG activities and records in order and compliant [WP item All; AIP All]
- Initiated preparation of draft Work Plan 2006 after consultation with DOED and USAID[WP item All; AIPs All]
- Provided draft of advance Six-Monthly Progress Report #8 covering the period July 1, 2005 to December 31, 2005 to USAID for discussion [WP Item All, AIPs All]

### C. Opportunities, Constraints, Issues, and Recommendations

- Efforts are underway to legislate the new electricity Ordinance and the NERC Ordinance by early 2006.
- The PDF Administrator conducted a seminar detailing the financing process in July. In October and again later, the PDF Administrator solicited applications for PDF financing for small projects under 10 MW (second window). However, it is reported that the PDF Administrator has not received any response from developers for such funding. Our discussions with IPPAN members suggest that one reason for such lack of IPP interest in PDF funding is that the process of obtaining PDF financing is cumbersome and that the cost of financing is too high relative to the complex process.
- HMGN has decided on the Kabeli A medium sized hydro project development for possible funding under the PDF. Selection of qualified bidders has been made by the HMGN and is being reviewed by World Bank for concurrence. A request for proposal (RFP) for the work is expected to be released early in 2006 with proposed award set for later in 2006.
- Increased insurgency activities and continued political uncertainty has slow down potential investment activity in the sector, particularly from outside Nepal. Domestic interest and investment in hydropower development continues at a reasonable level. Our subcontractors, Nepal Consult Ltd (NCL) and Butwal Power Company (BPC) have had to delay/reschedule their field investigation work for feasibility studies by several months because of transportation difficulties attributed to insurgency activities. However, our subcontractors have not reported any security incidents during their work.

## **I.2. Expected Results (Outputs and/or Indicators of results)**

As a measure of performance under this contract to support SO6, the following intermediate results (IR) are monitored:

1. IR 6.1- Improved enabling environment for equitable and sustainable hydropower development
2. IR 6.2 – Strengthened environmental and social assessment procedures with broadened stakeholder participation

Primary indicators used to assess the IRs under the contract are summarized below:

Indicator SO 6.1 - Private financial commitments for hydropower projects, measured as cumulative investment amount in millions of US dollars.

Indicator SO 6.2 - Number of private sector firms participating in projects of one megawatt or greater, measured as growth per year of investment in millions of US dollars.

Table 1 provides details of performance indicators monitored under SO 6.1 and SO 6.2.

### Analysis of Results

Investments in hydropower development in the reporting period have been limited. The only project that achieved financial closure during the reporting period is the Thoppal Khola (1.6 MW) project. During the year, BPC has carried out significant upgrade of the Andhi Khola project. Khimti and Bhote Koshi projects continued to make investment on equipment upgrades and environmental mitigation efforts. These activities indicate committed local interest in hydropower investment despite political uncertainty. Construction in the 16 MW Upper Modi project remains suspended. Construction of Lower Nyadi (4.5 MW) development is also under suspension pending resolution of overseas financing issues. Snowy Mountain Engineering Corporation (SMEC) is reported to have concluded an Engineering, Procurement, and Construction (EPC) contract for the 750 MW West Seti project. Equity and other financing are underway. However, no progress has been reported during the reporting period. Attracting large overseas investment under current political situation continues to be a major hurdle.

The PDF Administrator is fully functional. However, as noted earlier, there appears to be little interest for developers in the requesting PDF financing for small projects. The NEA has suspended executing power purchase agreements with local developers because of transmission line and financial constraints and excess run-of-river generation, among others. This has slowed down some of the small projects ready for construction and has also resulted in a lack of interest in PDF funding

A sizeable improvement in the royalty revenue receipts from private sector hydro projects was recorded during the year. The HMGN has distributed greater portion of the royalty monies received to the affected districts and regional development districts on the basis of Local Self Governance Ordinance of 2004. The Ministry of Local Development (MOLD) is charged with developing formulas for distribution of royalty to various affected districts as well as other districts in the affected region. Because of administrative difficulties, the process has been slow and DOED has not been able to distribute all the royalty revenue it has received. As of the end of December 2005, DOED was awaiting direction from MOLD for distribution of over USD 1,450,000 to the districts.

**Table 1: Performance Data Table – SO6\***

SO or IR	Results Statement	Indicator	Unit of Measure	Dis-aggregation	Baseline Year	Baseline Value	2002 Target	2002 Actual	2003 Target	2003 Actual	2004 Target	2004 Actual	2005 Target	2005 Actual*	2006 Target	2006 Actual	
SO6 IR 6.1	Increased private sector participation in environmentally and socially sustainable hydropower development	Private financial commitments for hydropower projects	Millions of US Dollars		2001	323	327	348	335	360	355	378	400	390	445		Cumulative
							4	25	8	12	20	18	45	12**	45		Incremental
SO6 IR 6.1.1	Improved enabling environment for equitable and sustainable hydropower development	Private sector projects progressing towards financial closure	Cumulative total number of projects that have passed important stages toward completion of a private hydro power project	Stage 1***	2001	24	26	28	30	42	35	68	40	95	45		
							6	8	8	10	10	13	12	15	14		
							6	6	8	14	10	20	12	25	14		
							6	8	8	9	10	12	12	14	14		
SO6 IR 6.1.2	Improved enabling environment for equitable and sustainable hydropower development	Royalties distributed to affected communities according to policy	\$ Equivalent and % of royalties transferred to DDCs.		2001	95,522	125,400	167,284	133,000	293,390	151,400	372,007	164,000	1,472,723	177,000		Cumulative
							10%	10%	10%	10%	10%	10%	10%	10%	10%		

\* SO6 Performance baseline and targets established by USAID on 2/22/2002

\*\* As of December 2005 – Includes Chaku Khola small hydro 1.5 MW – \$3 M, Sisne Khola – \$1.4 M, and Baramchi Khola – \$1.6 M, Thoppal Khola-\$2 M ; BPC- Andhi Khola upgrade \$2.9M; BKPC – \$0.5 M; Khimti - \$0.3M

Investment in Sisne Khola (750 kW) and Baramchi Khola (999 kW) have been included as discussed with USAID

\*\*\* Stage 1: Survey license issued (excluded projects studied by DOED)

Stage 2: Generation license issued

Stage 3: Completion of studies

Stage 4: Financial closure/Power Agreement

\*\*\*\*From January to December 2005 the IPPs have remitted a sum of \$2,572,276 to DOED; this has included some payments due in 2004. DOED has distributed \$ 1,100,716 of this amount to the affected DDCs of regions based on the Local Self Governance Ordinance of 2004

**Table 1: Performance Data Table – SO6 (Continued)**

SO or IR	Results Statement	Indicator	Unit of Measure	Dis-aggregation	Baseline Year	Baseline Value	2002 Target	2002 Actual	2003 Target	2003 Actual	2004 Target	2004 Actual	2005 Target	2005 Actual	2006 Target	2006 Actual		
SO6 IR 6.2	Increased private sector participation in environmentally and socially sustainable hydropower development	Number of private sector firms participating in projects of one megawatt or greater	Number of firms	<b>Redundant (Stage 1 of IR 6.1.1)</b>	2001												Cumulative	
SO6 IR 6.2.1	Strengthened environmental and social assessment procedures, with broadened stakeholder participation	Number of approved environmental/ social impact assessments for hydropower proposals that meet or exceed international guidelines	Number of EIAs/ SIAs complying with guidelines *		2001	7	8	10	10	21	12	27	14	34	16			Cumulative
							1	3	2	11	2	6	2	7	2		Incremental	
SO6 IR 6.2.2	Strengthened environmental and social assessment procedures, with broadened stakeholder participation	Public hearings for hydropower conducted with local stakeholders and affected communities	Number of hearings		2001	17	19	18	21	24	25	30	31	36	37			Cumulative
						2	1	2	6	4	6	6	6	6		Incremental		
SO6 IR 6.2.3	Strengthened environmental and social assessment procedures, with broadened stakeholder participation	Number of professionals trained in reviewing environmental/ social impact assessments	Number of people trained.	2001	107	117	145	127	210	147	236	167	260	187			Cumulative	
						10	38	10	65	20	26	20	24		Incremental			

\* The number includes Initial Environmental Examinations (IEEs) prepared for hydro projects since IEEs are the only required environmental documentation for certain developments

### **I.3. Administrative and Management Activities**

#### **A. Procurement and facilities**

- Procured and handed over to DOED, 17 Technical Text Books for Library [WP item All; AIP All]
- Procured and handed over second set of laminated topographic maps of Nepal and a map storage cabinet to DOED;
- Handed over one Pentium IV computer to DOED for use in the PIC; procured and handed over a pen drive of 1 GB capacity for use of Joint Secretary of MOWR [WP item All; AIP All]
- Continued to maintain DOED website
- Continued to provide Information Technology support to DOED staff

#### **B. Subcontracts**

Signed a subcontract with ACN on October 20 to conduct a market research to collect primary data on stakeholder understanding and awareness of hydropower development in Nepal.

#### **C. Project personnel**

As of December 31, 2005 key resident staff included Krish Krishnan, Chief of Party, and Rajya Laxmi Bajracharya, Project Administrator; Nilu P. Basnyat was promoted as IRG/N's Environmental Manager. IRG/N office now has a strength of 10 staff.

#### **D. Significant Meetings**

- Held a discussion meeting with IPPAN to identify one window opportunities and challenges on August 5
- Held project Progress Meetings with USAID and DOED on August 24 and on October 26
- Coordinated a meeting with the head of Environmental Division of MOFSC and DOED regarding new HMGN directive on approval process for EIA/IEE documents
- Held meeting with Minister and Secretary of MOEST on August 23 to coordinate and expedite one-window policy opportunities
- Held a meeting with ICIMOD on Oct 6, to develop a hydro-projects database and to train DOED staff; further discussions were held on October 26 to finalize SOW for ICIMOD
- Organized and attended briefing meetings for the Assistant Minister and the Secretary of MOWR to discuss draft Electricity and NERC Ordinances on November 21-23
- Held a stakeholder meeting on TL study on November 25

#### **E. Out-of-country Training**

- Two senior HMGN official attended Hydro 2005 conference held from October 17-23, 2005 in Villach, Austria; [WP item 8.1.2, 8.6.1, AIPs 1.2, 13.1]

- Six HMGN officials and IRG's COP completed Executive Negotiations Program activities in Thailand and Laos between November 27 and December 6. A presentation of key findings and recommendations for power export from Nepal is proposed to be made in 2006 [WP item 8.1.2, 8.6.1, AIPs 1.2, 13.1]

#### F. In-country Training

- Conducted IP3 Course training for 30 HMGN staff and other stakeholders on preparing an electricity Rate Case from September 26-30, 2005
- Sponsored three DOED Engineers to attend the Fifth Asian Regional Conference on Engineering Geology for Major Infrastructure Development and Natural Hazards Mitigation held from September 28-30

#### G. Field activities

- NCL and BPC completed field studies as part of feasibility and EIA activities for Maya Khola and Khare Khola SHPs respectively.
- ACN conducted field survey and focus group discussion in Kathmandu and other key districts as part of Market Research for POP.

#### **I.4. Progress by AIPs**

Following table provides output from the Nepal Hydropower Management System (NHMS) for monitoring progress of our activities. The NHMS output indicates progress for the year 2005 consistent with WP 2005.

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TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT- December 2005

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
AIP 1.1	<b>Activity 1: Support policy, legal and regulatory reform and strengthen key institutions</b> <b>Activity 4: Technical support to improve the "one window" mechanism</b> <b>Activity 16: Training Activities - Executive exchanges to promote energy reform consensus</b> <b>Activity 17: Training Activities -Study tours to Indian States to learn from various sector reforms. (CLOSED)</b>				
Activity 1	Draft, review, discuss, revise NERC Act and relevant regulations	Draft NERC Act only	30-Apr-05	31-Mar-05	Completed
	Stakeholder meeting on draft Acts only	Stakeholder Meeting	30-Apr-05	12-Apr-05	Completed
	Initiate draft NERC regulations	Draft NERC regulations	30-Jun-05	22-Jun-05	Completed
	Compile stakeholder comments on draft NERC Act	Compilation	15-May-05	15-May-05	Completed
	Draft Action Items report detailing roadmap to strengthen HMGN regulatory capability; finalize report and initiate implementation	Action Items report	30-Sep-05	17-Jun-05	Draft Submitted to DOED
	HMGN forms working group for regulatory and reform training	<i>HMGN Action</i>	31-May-05	31-May-05	Completed
	Support HMGN to revise NERC Act	<i>Revise Draft Act, Comments</i>	30-Nov-05	25-Nov-05	completed
	Support to finalize Regulations	<i>Preliminary draft (partial)</i>	31-Mar-06		Ongoing
	Support for legislative activities	As required	30-Apr-06		Delayed
	New NERC Act passed as Ordinance	NERC Act legislated	TBD		Delayed
	Draft Action Items report detailing roadmap to reform and strengthen WEC; finalize report and initiate implementation	Final Action Items report	30-Jun-06		Pending finalizing Act
	Develop, as needed, explanatory/procedural documents for individual major steps in power sector reform and institutional strengthening	Procedures, reports	31-Dec-05		Not needed

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Plan and organize regulatory workshops; executive exchange/study tours Implement strengthening of regulatory capability, NERC;	Workshops, Study tours	31-Dec-05	07-Dec-05	Completed
	Implement initial reform/strengthening of MOWR, WECS, and other institutions	Training	31-July-06		Pending Finalizing Act
<b>AIP 1.2</b>	<b>Activity 1: Support policy, legal and regulatory reform and strengthen key institutions</b> <b>Activity 6: Improve DOED's capacity</b>				
Activity 1	Draft, review, discuss, revise new Electricity Act (EA) and relevant regulations	Draft EA only	30-Apr-05	31-Mar-05	Completed
	Stakeholder meeting on draft Acts only	Stakeholder Meeting	30-Apr-05	12-Apr-05	Completed
	Initiate draft regulations	Draft EA regulations	30-Jun-05	22-Jun-05	Completed
	Compile stakeholder comments on draft EA	Compilation	15-May-05	15-May-05	Completed
	Draft Action Items report detailing roadmap to strengthen DOED capability; finalize report and initiate implementation	Action Items report	30-Sep-05	28-Jun-05	Draft to DOED
	HMGN forms working group for regulatory and reform training	HMGN Action	31-May-05	31-May-05	Completed
	Support HMGN to revise Electricity Act	<i>Revise Draft Act, Comments</i>	30-Nov-05	25-Nov-05	completed
	Support to finalize Regulations	<i>Preliminary draft (partial)</i>	31-Mar-06		Ongoing
	Support for legislative activities	As required	30-Apr-06		Pending finalizing Act
	New EA passed as Ordinance	New EA legislated	TBD		Delayed
	Develop, as needed, explanatory/procedural documents for individual major steps in power sector reform and institutional strengthening	Procedures, reports	31-Dec-05		Not Needed
	Manuals for inspection of generation facilities, substations, switchyards, and transmission lines	Manuals	31-May-06		Postponed-lower priority

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Review NEA's distribution code for 11/33 kV interconnection	Distribution code	31 Mar-06		Postponed-lower priority
Activity 6	Implement reform/strengthening of DOED	Training; workshops	31-Jul-06		Pending finalizing act
	Organize specific local and overseas training, study tours to strengthen DOED	OC and IC training Update	31-Dec-05	07-Dec-05	Completed
	Continue to develop, commission licensing database; review and enhance database operation	Database enhancement	30-Apr-06		Delayed-Ongoing
	Interface/coordinate with other USAID programs (e.g. SARI E, USEA partnership) to develop and implement regulatory training program for ETFC and DOED	Training Program	31-Dec-05	30-Sep-05	Completed
<b>AIP 1.3</b>	<b>Activity 1: Support policy, legal and regulatory reform and strengthen key institutions</b>				
	Assist, as required, DOED to review final report of Asian Development Bank (ADB) consultant report on Power Sector Reform		29-Apr-05	29-Apr-05	Completed
	Assist MOWR and DOED to assess NEA's proposal for improving its financial condition including related issues on power bond issue, spill energy, and time-of-day metering		29-Apr-05	29-Apr-05	Completed
	Develop Outline for NEA Board reform	Draft outline documents	16-Sep-05	16-Sep-05	Completed
<b>AIP 1.4</b>	<b>Activity 1: Support policy, legal and regulatory reform and strengthen key institutions</b>				
	Finalize policy paper/report on rural cooperatives	Final Report	31-Mar-05		Cancelled since ADB has an updated TA under implementation

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
AIP 2.1	<b>Activity 2: Facilitate policy dialogue between HMGN and civil society groups</b> <b>Activity 10: Improve public awareness and participation in private hydropower development</b> <b>Activity 12: Build outreach and education programs to increase public support through information.</b> <b>Activity 18: Train/assist relevant HMGN agencies in EIA/SIA and public consultations.</b> <b>Activity 19: Improve public hearings and documentation of stakeholder concerns. (CLOSED)</b> <b>Activity 24: Train Public on disclosure and consultation concerning EIA</b>				
Activities 2, 10, 12	Submit draft POP to DOED for review	Draft POP	30-Apr-05	6-Mar-05	Completed
	DOED/MOWR decision to pursue POP	Decision to pursue	30-Apr-05	31-May-05	Completed
	Revise draft to DOED	Revised draft	31-May-05	31-May-05	Completed
	Roundtable discussion w/stakeholders	Stakeholder Meeting	30-Jun-06		Deferred to WP 2006
	Plan for upgrading existing Public Information Center	Report	31-May-05	25-May-05	Completed
	Finalize POP research design+ methodology		31-Jul-2005	20-Oct-05	Completed
	Establish POP working committee	<i>HMGN Action</i>	31-Aug-2005		Deferred to WP 2006
	HMGN selects/nominates POP team leader	<i>HMGN Action</i>	31-Aug-2005	31-Aug-05	Completed
	Select research agency	Sub-contract	31-Aug-2005	20-Oct-05	Completed
	Needs assessment, gap analysis, training plans	Training plan	31-Aug-2005		Deferred to WP 2006
	Develop POP materials for distribution to create awareness	Technical brochure/flyer	31-Oct-05		Deferred to WP 2006
	Revise as necessary and finalize draft	Final draft POP			Deferred to WP 2006

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Stakeholder workshop to finalize POP	Workshop	30-Jun-06		Deferred to WP 2006
	Collect and analyze baseline information	Analysis/ reports	31-Mar-06		Delayed
	Finalize POP Implementation Plan	Implementation Plan	31-Oct-05		Deferred to WP 2006
	Train POP team	Training	30-Sep 2006		Deferred to WP 2006
	Finalize POP Media Training	Media Plan	28-Feb-06		Delayed
	Finalize POP – Launch POP implementation and updated website	POP report	31-Oct-05		Deferred to WP 2006
	Implement POP	Progress items	31-Dec-05		Deferred to WP 2006
	Develop TOR to conduct periodic evaluation	Progress items	31-Dec-05		Deferred to WP 2006
Activities 19, 24	Submit manual on Gender Participation in hydropower development to MOWR for approval to publish	Final GP manual	31-May-05	29-Apr-05	Completed
	Publish manual on Gender Participation in hydropower development with MOWR	Published GP manual	31-Jul-05	6-May-05	Completed
<b>AIP 5.1</b>	<b>Activity 5: Assist DOED in implementing the World Bank's Power Development Fund (PDF) [CLOSED]</b> <b>Activity 9: Study and Review of Nepal's finance sector to promote domestic investment in hydropower.</b>				
Activity 5	Assist DOED as required to meet its obligations as Secretariat to the PDF Board	As needed	31-Dec-05	31-Dec-05	Completed

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
Activity 9	Review existing studies and prepare a technical note on regulatory and other constraints for local investment in hydropower development in consultation with local banks, IPPAN, and other stakeholders	Meetings/ Presentations/ Workshops	30-Apr-05		Cancelled, not needed
	Conduct meetings with local financial institutions on hydropower project and TL investment opportunities in coordination with IPPAN etc	Presentations, workshops	30-Apr-05		Cancelled, not needed
	Develop Strategy Document for Domestic Capital Mobilization for hydropower investment	Strategy document	31-Jul-05		Cancelled, not needed
<b>AIP 7.1</b>	<b>Activity 7: Identify Issues and Constraints to Power trade under Power Trade Agreement with India [CLOSED]</b>				
	Organize a workshop with HMGN, IPPAN and Indian counterparts (PTC, GCIL, etc) for accelerating power exchange	Workshop; follow on action items	31-May-05		Cancelled; see AIP 26.1
	Assist DOED and NEA on a as needed basis	Progress Items	31-Dec-05	31-Dec-05	Completed
<b>AIP 7.2</b>	<b>Activity 3: Technical support to the DOED on one or more export projects (CLOSED)</b> <b>Activity 14: Training Activities - Build Nepalese capacity for regional energy development and trade</b> <b>Activity 15: Training Activities - Train DOED and HMGN staff on IPPs and power trade negotiations</b> <b>Activity 25: Facilitate regional info exchange to resolve key issues (CLOSED)</b>				
Activity 3	Review grid code prepared by NEA and prepare a plan for revisions to make the document suitable for use by all market participants	Revisions to grid code	31-May-05	26-Jun-05	Revisions submitted to DOED
Activity 3	Organize and conduct a workshop/consultative discussion with stakeholders to discuss proposed revisions	<i>ADB TA/HMGN Action</i>	31-May-05		Not known
Activity 3	Final grid code for adoption by ETFC [NERC]	<i>ADB TA/HMGN Action</i>	31-Jul-05		Not known
Activity 3,14,15,25, 6	Discuss with DOED and other HMGN agencies to develop, finalize, and implement a plan for promotional activities regarding marketing hydropower development and power export	DOED Promotional plan	31-May-06		Pending finalizing EA

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
Activity 3,6,14,15,25	Organize workshop with IPPAN, FNCCI, and other stakeholders for improving power exchange/exports		31-Dec-05		Cancelled; see AIP 26.1
Activity 3,14,15,25	Assist DOED and NEA on a as needed basis		31-Dec-05		Cancelled – Not requested
<b>AIP 8.1</b>	<b>Activity 8: Assist DOED in developing and analyzing project proposals, Request for Qualification (RFQs) and RFPs from a financial perspective.</b>				
	Assist DOED to conduct a fresh pre-qualification process In consultation with DOED and other HMGN agencies, identify project(s) to be funded	Various	31-Jan-05	31-Jan-05	Completed
	Revise RFP for Kabeli A hydropower project for competitive development Discuss and finalize RFP in consultation with HMGN agencies (DOED, NEA, others);	Draft RFP	31-Jul-05	27-Jun-05	Draft Submitted to DOED
	Update/comment on model Power Purchase Agreement (PPA) of NEA for inclusion with RFP	Comments on NEA's Model PPA	31-Jul-05	29-Sep-06	Completed
	Update model PA	Model PA	31-Jul-05	29-Jun-05	Draft Submitted to DOED
	Request, receive, evaluate bids and recommend for selection of a project developer for Kabeli-A project	Support as necessary	31-Dec-05	TBD	Delayed
	Assist DOED/HMGN agencies in negotiation and concluding a contract for development of the project with partial funding from PDF	Support as necessary	31-Dec-05	TBD	Delayed
<b>AIP 11.1</b>	<b>Activity 11: Improve transparency of local revenue sharing of hydropower benefits</b> <b>Activity 18: Train/assist relevant HMGN agencies in EIA/SIA and public consultations</b> <b>Activity 20 (part): Advance impact monitoring and evaluation of benefits and equity issues</b>				
	Assist AIP 26.1 to implement DOED guidelines in preparing IEEs and EIAs for HEPs	EIAs /IEEs for two projects	31-Jul-06		Delayed
	Assist AIP 26.1 to identify, develop, and update best environmental management practices; review EIA quality and identify improvement mechanisms based on AIP 26.1 results	EIAs /IEEs for two projects	31-Jul-06		Delayed

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>AIP 13.1:</b>	<b>Activity 13: Perform training needs assessment for DOED and key institutions, complementary to SARI/E training program.</b>				
	Assess and evaluate training effectiveness in consultation with DOED and finalize report/ Review and revise criteria for participant selection for training / Review and suggest revisions (if necessary) to training needs and training activities	Report	31-Mar-06		Delayed
	Implement training activities listed in Section 7	Progress item	31-Dec-05	31-Dec-05	Completed
	Monitor other training activities in WP 2005 and appropriately update/revise training activities	Memo: update training activities	31-Dec-05	31-Dec-05	Completed
<b>AIP 20.1</b>	<b>Activity 20 (part): Advance impact monitoring and evaluation of benefits and equity issues</b> <b>Activity 21: Develop and strengthen EIA/SIA capacity for mitigation, implementation, and monitoring</b> <b>Activity 22: Develop standards for certification of EIA/SIA professionals (CLOSED)</b> <b>Activity 23: Develop capacity for EIAs at Internationally Acceptable Standards</b>				
Activity 21:	Finalize manual on baseline data, impact analysis, and mitigation measures and submit to MOWR for review	Final draft manual	31-Mar-06		Delayed;
	Distribute already published seven manuals to industry/developers	Manual Distribution	31-May-05	25-May-05	Completed
	Plan training for SIA development for DOED review	Action Items memo	31-May-05		Cancelled Not required
	Incorporate MOWR comments on manual on baseline data, impact analysis, and mitigation measures for hydropower projects	Final Manual	31-May-06		Delayed
	Publish manual on baseline data, impact analysis, and mitigation measures for hydropower projects	Published Manual	30-Jun-06		Delayed
	Finalize plans for training for SIA development and initiate implementation	Final Plan and action items	31-Jul-05		Cancelled Not required
Activity 23	Assist AIP 26.1 to identify, develop, and update best environmental management practices	Inputs to EIAs and IEEs for SHPs	30-Jun-06		Delayed
	Review success of EIA quality and identify improvement mechanisms based on AIP 26.1 results	Inputs to EIAs and IEEs for SHPs	30-Jun-06		Delayed

AIP #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Review manual use and assess revisions needed	Memo	31-Mar-06		Delayed
<b>AIP 26.1</b>	<b>Activity 26 (1): Feasibility Study and Environmental Impact Assessment of Small (5-10 MW) Hydropower Projects</b>				
	Manage, direct, review, monitor consultants work projects 1 and 2	Progress item; other transmittals as required; final FS reports and EIAs	31-Jul-06		Delayed
	<b>Activity 26 (2): Feasibility Study for Transmission Line</b>				
	Meeting with Indian Agencies, IPPs and other key organizations	Meetings	30-Nov-05	15-Nov-05	Completed
	Meeting with NEA, IPPAN and other stakeholders	Meetings	30-Nov-05	06-Dec-05	Completed
	Organize and conduct a meeting with key stakeholders to discuss need and scope of TL corridor study	Stakeholder Meeting	30-Sep-05	25-Nov-05	Completed

### **I. 5. Personnel, Cost, and Performance Tables**

The schedule of short-term technical assistance, cost summary by Contract Line Items (CLINs), and estimated percent completion by CLIN and by activity for ease of reference (and not by AIP) at end of current report period are shown on Tables 3 through 6.

**TABLE 3. SHORT TERM EXPATRIATE TECHNICAL ASSISTANCE (TA)  
July – December 2005**

<b>Name</b>	<b>Arrival Date</b>	<b>Departure Date</b>	<b>Length of Stay (days)</b>	<b>CLIN Number(s)</b>	<b>Assignment</b>
Charles Ebinger	Sep 20	Sep 30	11	001, 002	All AIPs
Raghavan Pillai Rejikumar	Oct 27	Oct 28	2*	004	AIP 26.1
Charles Ebinger	Nov 6	Nov 15	10*	004	AIP 26.1
Raghavan Pillai Rejikumar	Nov 7	Nov 15	9*	004	AIP 26.1
Raghavan Pillai Rejikumar	Nov 20	Dec 8	19	004	AIP 26.1
David Saul	Nov 21	Dec 3	13	004	AIP 26.1
Toby Manning	Nov 21	Dec 6	16	004	AIP 26.1
Charles Ebinger	Dec 2	Dec 9	8	001, 002, and 004	All AIPs

\* In India on TL study

**TABLE 4. COST SUMMARY BY CLIN**

(As of December 31, 2005)

<b>CLIN No.</b>	<b>Contract Budget</b>	<b>Total estimated expenses to 12/31/2005</b>	<b>Percent Budget To 12/31/2005 Expenses</b>
CLIN 001	\$2,981,229	\$2,759,100	92.5%
CLIN 002	\$2,218,866	\$1,797,600	81.0%
CLIN 003	\$245,365	\$113,000	46.1%
CLIN 004	\$252,213	\$102,000	40.4%
<b>Total (CLINs 1 and 2)</b>	<b>\$5,200,095</b>	<b>\$4,556,700</b>	<b>87.8%</b>
<b>Total (CLINs 1, 2, 3, and 4)</b>	<b>\$5,697,673</b>	<b>\$4,771,700</b>	<b>83.7%</b>

**TABLE 5. PERCENT COMPLETION BY CLIN**

(As of December 31, 2005)

<b>CLIN</b>	<b>Title</b>	<b>Expended Resources Percent</b>	<b>Activity Completion Percent</b>
001	Improved enabling environment for equitable and sustainable hydropower development	92.5%	88%
002	Strengthened environmental and social assessment procedures, with broadened stakeholder participation	81.0%	93%
003	Conduct Feasibility Studies and EIAs (subcontract expense only)	46.1%*	68%*
004	Conduct Feasibility Study for TL	40.4%	40%

\* USAID has decided to limit this activity to complete only two of the up to five feasibility studies.

**TABLE 6. PERCENT COMPLETION BY ACTIVITY**  
(As of December 31, 2005)

<b>Activity Number</b>	<b>Activity Description</b>	<b>Percent Complete</b>
<b>CLIN 001 – Improved enabling environment for equitable and sustainable hydropower development</b>		
1	Support policy, legal, and regulatory reform and strengthen key institutions	82%
2*	Facilitate policy dialogue between HMGN and civil society groups	80%
3*	Technical support to the DOED on one or more export projects [to be closed; see Activity 26] [Closed]	100%
4*	Technical support to improve the "one window" mechanism [incorporated in Activity 1, 6]	85%
5	Assist DOED in implementing the World Bank's Power Development Fund (PDF) [Closed]	100
6*	Improve DOED capacity	85%
7	Identify Issues and Constraints to Power trade under Power Trade Agreement with India	100%
8	Assist DOED in developing and analyzing project proposals, RFQs and RFPs from the financial perspective	85%
9	Study and Review of Nepal's finance sector to promote domestic investment in hydropower [to be closed]	85
10*	Improve public awareness and participation in private hydropower development	90%
11*	Improve transparency of local revenue sharing of hydropower benefits [To be closed]	90%
12*	Build outreach and education programs to increase public support through information	85%
13*	Training Activities - Perform training needs assessment for DOED and key institutions, complementary to SARI/E training program	85%
14	Training Activities - Build Nepalese capacity for regional energy development and trade	90%
15	Training Activities - Train DOED and HMGN staff on IPPs and power trade negotiations (Financial issues)	85%
16*	Training Activities - Executive exchange to promote energy reform consensus	90%
17*	Training Activities - Study tours to Indian States to learn from successful sector reforms [Closed]	100%
	<b>Percent Complete CLIN 001</b>	<b>88%</b>

\*These activities support CLIN 001 and CLIN 002

**TABLE 6. PERCENT COMPLETION BY ACTIVITY (Continued)**

(As of December 31, 2005)

Activity Number	Activity Description	Percent Complete
<b>CLIN 002- Strengthened environmental and social assessment procedures with broadened stakeholder participation</b>		
18	Train/assist relevant HMGN agencies in EIA/SIA procedures and public consultations	95%
19	Improve public hearings and documentation of stakeholder concerns	100%
20	Advance impact monitoring and evaluation of benefits and equity issues	90%
21	Develop and strengthen EIA/SIA capacity for mitigation, implementation and monitoring	98%
22	Develop standards for accrediting EIA/SIA Professionals [CLOSED]	100%
23	Develop capacity for EIA/SIAs at or above World Bank or IUCN standards	98%
24	Train public on disclosure and public consultation concerning EIA/SIA	80%
25	Facilitate regional info exchange to resolve key issues [CLOSED]	100%
<b>Percent Complete CLIN 002</b>		<b>93%</b>
<b>Estimated Overall Weighted Percent Complete - CLIN 001 and CLIN 002</b>		<b>90%</b>
<b>CLIN 003- Feasibility Studies and EIAs for Small Hydropower Projects**</b>		
26 (1)	Khare Khola FS and EIA studies	65%
26 (1)	Maya Khola FS and EIA studies	70%
<b>Percent Complete CLIN 003**</b>		<b>68%</b>
<b>CLIN 004- Feasibility Study for TL***</b>		
26 (2)	TL Feasibility Study	40%
<b>Percent Complete CLIN 004***</b>		<b>40%</b>

\*\* Scope of work is revised; USAID has decided to terminate this activity with only two of the up to five feasibility studies.

\*\*\* started Oct 2005

## SECTION II - COGNIZANT TECHNICAL OFFICER'S (CTO) REPORT

### AGENCY FOR INTERNATIONAL DEVELOPMENT MISSION TO NEPAL

#### MEMORANDUM

**DATE:** February 1, 2006

**TO:** Krish Krishnan, Chief of Party  
International Resources Group, Inc.

**FROM:** Anthony B. Carvalho, CTO 

**SUBJECT:** CTO Comments on IRG's Semi-Annual Report #8, Private Sector Hydropower Development Project-2, IRG/USAID Contract No. 367-C-00-02-00011-00 in support of USAID's Strategic Objective 6.

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Please include the following in Section 2 of the eighth Semi-Annual Report for the period July 1<sup>st</sup> 2005 through December 31, 2005:

In general, progress continued to be satisfactory despite the deteriorating economic and political situation. Among the highlights, was the completion and submission of the draft plan for the reform of Nepal Electricity Board for review by the DOED and MOWR. Also, progress was made on the two important ordinances, the Electricity Act and the NERC Act which were completed by the consultants and are pending reviews by the MOWR. The GON's special panel to review these ordinances was set up and is putting the final touches needed to get it approved by the cabinet.

An important new task on a transmission line study to link the Nepal and Indian grid for power exports commenced. Important contacts with the Power Trading Corporation of India and the Indian Power Producers Association were established. These contacts will help in accessing private sector interest in investing in transmission lines that could facilitate cross-border trade.

On the down side, increased insurgency activities continued and that slowed actual investments. For example, the West Seti Project (750 MW), that consists of the largest private sector undertaking that aimed to start ground breaking in late November 2005, decided to differ or delay their program till conditions on the ground become more stable politically.

In general, the second part of this year's activities continued to be relevant, appropriate, and productive. Some training and TA activities had to be postponed due to the strikes and deteriorating political and security conditions. However, those items were not critical and it is anticipated that IRG will be able to catch up and complete all tasks by September 2006 .

CC: RCO: Joseph McGee; CO: Ram Gurung  
GDO: N. Chanmugam  
PPD: S. Jennings; A. Paro