

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

USAID-GON?SO4 - Increased Private Sector Participation in Environmentally and  
Socially Sustainable Hydropower Development

### **SEMI-ANNUAL REPORT #4**

July 1, 2003 through December 31, 2003

**Prepared for:**

**USAID Mission to Nepal**

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

**International Resources Group, Ltd.**

DOED Building, Anam Nagar

Kathmandu, Nepal

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#### **TABLE OF CONTENTS**

<b><u>DESCRIPTION</u></b>	<b><u>PAGE</u></b>
<b>Contractor Information</b> .....	ii
<b>Acronyms and Abbreviations</b> .....	iii
<b>Section I – Contractor’s Report</b> .....	1
I.1 <u>Summary and Highlights of Activities</u> ... ..	1
I.2 <u>Expected Results (Outputs or Indicators)</u> ... ..	3
Table 1. Performance Data Table - SO4.....	5
I.3 <u>Administrative and Management Activities</u> .....	7
I.4 <u>Progress by Technical Activities</u> ... ..	8
Table 2. Nepal Hydropower Management System Output - 2003.....	9
I.5 <u>Personnel, Cost, and Performance Tables</u> .....	17
Table 3. Short-term expatriate technical assistance... ..	17
Table 4. Cost summary by CLIN.....	18
Table 5. Percent Completion by CLIN ... ..	18
Table 6. Percent Completion by Activity... ..	19
<b>Section II - Cognizant Technical Officer's Report</b> .....	21

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### **Contractor Information**

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

**Reporting Period:** July 1, 2003 – December 31, 2003

## Acronyms and Abbreviations

AA	Administration Agreement
CLIN	Contract Line Item
CTO	Cognizant Technical Officer
DOED	Department of Electricity Development
EIA	Environmental Impact Assessment
ETFC	Electricity Tariff Fixation Commission
GON	Government of Nepal
HDP	Hydropower Development Policy (2001)
IPP	Independent Power Producer
IPPAN	Independent Power Producer's Association of Nepal
IR	Intermediate Result
IRG	International Resources Group, Ltd
MOPE	Ministry of Population and Environment
MOU	Memorandum of Understanding
MOWR	Ministry of Water Resources
NEA	Nepal Electricity Authority
NERC	Nepal Electricity Regulatory Commission
NGO	Non-governmental Organization
NHMS	Nepal Hydropower Management System
NORAD	Norwegian Agency for Development
PDF	Power Development Fund
PDFA	Power Development Fund Administrator
PPA	Power Purchase Agreement
PSHDP	Private Sector Hydropower Development Project
RFP	Request for Proposal
SARI-E	South Asia Regional Initiative - Energy
SO	Strategic Objective
SOT	Strategic Objective Team
SOW	Scope of Work
USAID	U. S. Agency for International Development
WB	World Bank
WECS	Water and Energy Commission Secretariat

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

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

#### **A. Introduction**

International Resources Group Ltd. (IRG) signed the contract with the U.S. Agency for International Development (USAID) on December 12, 2001 for Technical Assistance for Increased Private Sector Participation in Environmentally and Socially Sustainable Hydropower Development in Nepal. Primary objective of the 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 Government of Nepal (GON) to increase private sector participation in hydropower development, in support of USAID’s Strategic Objective 4 (SO4).

The current contract is referred to as Private Sector Hydropower Development Project – 2 (PSHDP-2) to indicate continuation of USAID’s technical assistance program under SO4 and to differentiate from earlier contract referred to as PSHDP.

The scope of work under PSHDP-2 comprises 26 activities to support SO4. A summary of major accomplishments during the reporting period is listed below. Intermediate results expected through PSHDP-2 to support SO4 are: (i) Improved enabling environment for equitable and sustainable hydropower development; and (ii) strengthened environmental and social assessment procedures with broadened stakeholder participation. 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**

Activity milestones/events accomplished during the reporting period are listed below:

- Developed options for strengthening of Electricity Tariff Fixation Commission (ETFC) to address the issue of conflict of interest for NEA to take minority interest in private sector power development; options have been discussed with the GON agencies; selection of option for implementation is underway
- Prepared and discussed with GON agencies, a road map to strengthen and develop ETFC as Nepal Electricity Regulatory Commission (NERC) as envisaged in the Hydropower Development Policy 2001 (HDP 2001)
- Prepared and discussed with GON agencies, a road map to strengthen and develop DOED as the promotional body as envisaged in HDP 2001
- Conducted a preliminary due-diligence of laws and regulations of the power sector; developed and discussed options to legislate HDP 2001, address inconsistencies among power sector laws to facilitate large scale private investment in the sector, and to develop a NERC law

- Provided technical and logistical support to evaluate and select an Administrator for the Power Development Fund (PDF) ; assisted DOED to prepare for and successfully negotiate an Administration Agreement (AA) for the PDF Administrator (PDFA); AA was approved by the GON and concurred with by the world bank (WB)
- Provided technical and logistical support to the PDF Board created by the GON to manage the PDF
- Arranged and conducted out-of-country study tours in power sector regulation, attendance in international conferences, and out-of-country classroom training in general and project management and infrastructure project financing to senior GON officers from MOWR, DOED, WECS, Nepal Electricity Authority (NEA); DOED presented key observations and findings in a meeting at WECS
- Provided support to DOED to review financial and economic evaluation of Lower Arun, Kabeli, Singhati and Mewa Khola hydropower projects.
- Initiated development of a database system to monitor status and compliance of HEP licensing process and project operations
- Initiated regular discussions with independent power producers (IPPs) on issues in hydropower licensing and investment challenges in the sector; arranged a well-attended meeting of GON agencies, Independent Power Producers of Nepal (IPPAN), Small Hydropower Developers Association of Nepal (SHDAN) to explore overseas investment and support in equipment supply and O&M services
- Studied the power sector market in India and Nepal and prepared a baseline report on existing and proposed expansion plans in the two market; developed short-term and long-term strategy documents for Nepal's hydropower export to India
- Conducted Workshop to discuss Draft Manual on Conducting Public Hearings for Hydropower Development Projects on October 16, 2003
- Continued funding and technical support for training GON staff for Environmental Impact Assessment (EIA) training at SchEMS
- Developed a draft Public Outreach program for the power sector. The plan would be finalized in consultation with GON agencies and the USAID for implementation in 2004
- Completed prequalification of consultants to conduct feasibility studies and EIAs for small hydropower projects (5-10 MW)
- Prepared and issued a Request for Proposal (RFP) to the prequalified consultants for preparing feasibility studies and EIAs for two small hydropower projects under Activity 26

C. Opportunities, Constraints, Issues, and Recommendations

- Break-down of interim truce with the insurgents on October 2003, slowed down potential investment activity and field work.
- Signing of the PDF and appointment of the PDF Board provided an impetus from private sector for development funding. However, delay in the PDF Board signing an agreement with the PDFA is causing investor sluggishness.
- Awarding subcontracts for two feasibility studies and EIAs were delayed because of longer than expected schedule for pre-qualification of consultants and the significantly different approach to selection of contractor(s) and preparation of the studies to address developer risks. The awards are expected to be made in February

2004. Nepal's consulting engineering industry has been very appreciative of our efforts in this regard. The delay is not likely to have any impact on our program.

- In order to facilitate better coordination of our program activities, we have initiated bi-weekly meetings with DOED.

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

As a measure of performance under this contract to support SO4, the following intermediate results (IR) are monitored:

1. IR 4.1- Improved enabling environment for equitable and sustainable hydropower development
2. IR 4.2 – 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 4.1 - Private financial commitments for hydropower projects, measured as cumulative investment amount in millions of US dollars.

Indicator SO 4.2 - 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.

The following secondary indicators supporting performance under SO 4.1 and SO 4.2 are monitored:

Indicator I.R. 4.1.1 - Private sector projects progressing toward financial closure, measured as cumulative number of private sector projects progressing towards financial closure.

Indicator I. R. 4.1.2 - Royalties distributed to affected communities according to policy, measured as the amount of royalties distributed to affected communities in millions of US dollars.

Indicator I. R. 4.2.1 - Number of approved Environmental/Social Impact Assessments for hydropower proposals that meet or exceed international guidelines, measured as the number of EIA/SIA at or above international standards approved by DOED, MOWR, and the Ministry of Water Resources (MOPE) for private sector hydropower projects per year.

Indicator I.R. 4.2.2 - Public hearings for hydropower conducted with local stakeholders and affected communities, measured as the number of public hearings held for private sector hydropower projects per year.

Indicator I. R. 4.2.3 - Number of professionals trained in reviewing Environmental/Social Impact Assessments, measured as the total number of professionals trained.

## **Analysis of Results**

Although overall USAID targets in investments for the year have been met or exceeded, review of the type of investments for indicator IR 4.1 suggest a slowing down of new private sector (post-financial closure) investments and activities resulting from a soft global economy and particularly, the uncertain political situation in Nepal. The agreement for truce between the GON and the insurgents improved the political and security situation till October 2003 when the truce broke down. Further, recent public debate of issues of existing power purchase agreements (PPAs) between the NEA and the

IPPs and the GON handling of the Maoists insurgency is being closely watched by international community prior to making significant investments in the sector. Delay in the formation of the PDF Board and the Board's approval of the AA with the PDFA may also have contributed to the slowing down of overseas investment. Nevertheless, and on a positive note, a memorandum of understanding (MOU) to conclude a power purchase agreement was signed in November 2003 between a private sector developer and the Power Trade Corporation of India Ltd. (PTCIL), for the purchase of power from the 720 MW West Seti Project. The GON is committed to power sector reform and restructuring being planned under PSHDP-2 and the Asian Development Bank's (ADB) technical assistance program. The GON has continued with unbundling of the NEA and has initiated a program to encourage private cooperatives for power distribution in rural areas. These steps are expected to revive and increase the interest of overseas investors in Nepal's hydropower development.

Indicators for IR 4.1.1 shows a considerable increase in the number of survey license issued for private sector and studies conducted for small hydropower projects, particularly in rural electrification and distribution sub-sector. This is a clear indication of investor interest and confidence in the sector. There is an increased public awareness of the steady stream of royalty revenue to the GON and to affected local authorities. These two factors in conjunction with the West Seti MOU provide a strong indication of a possible turn around in private investment in the sector, provided the political situation improves. A significant increase in rural electrification and distribution system reinforcements would contribute to increased demand and would increase the need for new investments. Indicators for IR 4.2 also show a healthy increase in local capability to prepare EIA documents through increased documents being processed by the DOED.

.



## Performance Data Table – SO 4

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	Remarks
SO4 IR 4.1	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		400		445		Cumulative
							4	25	8	12 ***	20		45		45		Incremental
SO4 IR 4.1.1	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 hydropower project	Stage 1	2001	24	26	28	30	42	35		40		45		
				Stage 2		6	7	8	8	10	10		12		14		
				Stage 3		6	7	6	8	14	10		12		14		
				Stage 4		6	7	8**	8	9	10		12		14		
SO4 IR 4.1.2	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		164,000		177,000		Cumulative
							10%	10%	10%	10%	10%		10%		10 %		

\* As of December 2003

\*\* Correction made as data came in this year only.

\*\*\* Includes Butwal Power Company's repair of Jhimruk project (\$3M); Khudi Khola (\$7M) and Upper Bhote Koshi+Khimti project upgrade etc (\$2M)

**Performance Data Table – SO 4 (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	Remarks
SO4 IR 4.2	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 4.1.1)</b>	2001												Cumulative
SO4 IR 4.2.1	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		14		16		Cumulative
							1	3	2	11	2		2		2		Incremental
SO4 IR 4.2.2	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		31		37		Cumulative
							2	1	2	6	4		6		6		Incremental
SO4 IR 4.2.3	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		167		187		Cumulative

NOTE: SO4 Performance baseline and targets established on 2/22/2002

IR 4.1.1 Stage 1: Survey license issued

Stage 2: Generation license issued

Stage 3: Completion of studies

Stage 4: Financial closure/Power Agreement

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

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

- Procured and delivered 6 computers, two HP network printers, two HP LaserJet 1300 Printers, one heavy duty Xerox Copier and associated hardware for GON agencies
- Provided RAM upgrades for two DOED computers
- Refurbished a Xerox copier purchased under a previous USAID program and commissioned it at DOED Annex
- Procured a new network server in DOED main building
- Assisted DOED completing initial development and official launching of their website on December 16, 2003.
- Continued to provide IT support to over 25 DOED staff

#### **B. Subcontracts**

RFP documents were prepared and issued for selecting new subcontractors for preparing feasibility studies and EIAs for small hydropower projects under Activity 26.

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

As of December 31, 2003, key resident staff included Krish Krishnan, Chief of Party, Stefan Gorzula, Deputy Chief of Party, Rabin Shrestha, Senior Technical Advisor, and Rajya Laxmi Bajracharya, Project Administrator. A new program assistant was recruited in September while services of an IT assistant were terminated for individual reasons. The administrative and support staff strength continues at six persons.

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

- A second Strategic Objective Team (SOT) meeting was held on July 28, 2003 to review and approve revised Work Plan 2003
- Progress meetings among IRG, DOED and USAID were held on September 15, 2003, October 23, 2003, November 28, 2003
- First meeting of PDF Board was held on November 14, 2003
- Power sector reform and restructuring meetings and major presentations were held on September 12, and December 15, 2003
- Several working sessions/meetings were held with DOED, NEA, Water and Energy Commission Secretariat (WECS), MOWR, MOPE, IPPs, and other stakeholders during the reporting period

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

- Two senior official of DOED attended the "Management Development Program" in Manila, Philippines during September 15 - October 24, 2003
- Eight officials from MOWR, DOED, WECS, NEA, and IRG participated in the first "Power Sector Restructuring and Reform" study tour to India during September 17 - 26, 2003
- Two officials from DOED and MOWR attended the "37<sup>th</sup> Program for Development Managers" in Manila Philippines during November 1 - 28, 2003.

- Five officials of MOWR, DOED and NEA attended the "Hydro 2003 International Conference" in Zagreb, Croatia during November 2 - 10, 2003.
- Two senior official of DOED attended the "Advance Project Finance Analysis and Modeling for Infrastructure Investment" in Washington DC, USA during December 8 - 19, 2003.

#### F. In-country Training

- Two DOED engineers attended the "Economic Evaluation of Environmental Resources" organized by AITAA Nepal from August 3-6, 2003
- Provided logistical support and funding for six staff from DOED, MOWR, and WECS to attend a short course on "Power System Deregulation" organized by Tribhuvan University Department of Electrical Engineering in collaboration with the Indian Institute of Technology, Mumbai, India during September 21-26, 2003
- Conducted a workshop to discuss the draft manual on Public Hearing on October 16, 2003.
- Supported for three DOED staff participants to attend a Special Program organized by Gramin Bikash Samaj on December 15, 2003.

#### G. Field activities

Because of security concerns, field data collection programs on royalty revenue usage were deferred to 2004.

### **I.4. Progress by Technical Activities**

#### General Activities

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 2003 consistent with the Work Plan 2003 and is not truncated to show progress for the period of this report.

**International Resources Group Ltd.**  
**PSHDP-2**

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003**

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 1:</b>	<b>Support policy, legal and regulatory reform and strengthen key institutions.</b>				
	Prepare preliminary organization of power sector in discussion with DOED.	Preliminary Organization Chart for discussion	31-May-03	30-Apr-03	Completed
	Prepare Overall organization of Power Sector and discuss with senior officials of GON agencies, USAID, and IRG	Roadmaps, Presentations	15-Oct-03	15-Dec-03	Completed; delayed to take account of ADB TA
	Provide regulatory, legislative, and legal support as needed	Draft laws to legislate HDP 2001, NERC; Revise/update Electricity Act	31-Dec-04		Work scheduled for WP 2004;
	Prepare road map for reform of ETFC and DOED	Discussion/Presentation	31-Dec-03	15-Dec-03	Completed
	Collection/update and Review of relevant Acts/Laws/Regulations affecting the power sector and develop options to support sector reform	Presentation of options	31-Dec-03	15-Dec-03	Completed
<b>Activity 2:</b>	<b>Facilitate policy dialogue between HMG/N and civil society groups.</b>				
	Identify civil society groups and GON agencies	List	30-Jun-03	30-Jun-03	Completed
	Strengthen public information center at DOED	Technical Support	31-Dec-03		Ongoing
	Develop public outreach program	Draft plan for DOED review	31-Oct-03	31-Dec-03	Internal IRG review underway

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 3:</b>	<b>Technical support to the DOED on one or more export projects.</b>				
	Identify specific projects and issues, and collect relevant data; conduct research of comparable projects to develop a workshop/training program	Discussion Paper	31-Oct-03		No action pending review of strategy document submitted under Activity 7R
	Conduct training/workshop; continue follow up TA	Training/workshop	31-Dec-03		See above
	Assist in developing/updating tariff structure for export energy as needed (in conjunction with Activity 7)	Strategy/Plan	31-Dec-03	See above	
<b>Activity 4:</b>	<b>Technical support to improve the "one window" mechanism.</b>				
	Consistent with the power sector restructuring strategy developed under Activity 1, review existing licensing procedure, assess working relationship among DOED, HMGN agencies, civil society groups, non-governmental organizations (NGOs), and national and intl. financial institutions	Flow Chart	30-Sep-03		Pending approval of road maps developed for sector reform under Activity 1
	Prepare a memorandum containing recommendations for improvement and discuss details in a workshop with GON agencies to identify procedures and authority required for implementing a one-window approach	Memorandum	31-Oct-03		See above
	Assist DOED to establish an inter-agency committee; coordinate with Activity 1 and conduct training seminars to enhance DOED staff's capacity to act as a liaison among GON agencies	Presentation/Seminar	31-Dec-03		See above
<b>Activity 5:</b>	<b>Assist DOED in implementing the World Bank's Power Development Fund (PDF).</b>				
	Provide support to DOED to address comments from WB on PDF	Technical Support/Analysis	31-Mar-03	31-Mar-03	Completed
	Assist DOED in preparing for PDFA Negotiation	Draft Administration Agreement	30-Jun-03	30-Jun-03	Completed
	Assist in preparing negotiation strategy	Strategy Paper	15-Aug-03	15-Aug-03	Completed

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003 (Continued)**

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Prepare brochure on licensing procedure	Brochure	31-Aug-03		Ongoing
	Assist DOED in negotiations to conclude AA with PDFA	Technical Support	15-Oct-03	26-Sep-03	Completed
	Assist DOED in implementing the PDF	Technical Support	31-Dec-03		Pending PDF Board approval of AA
<b>Activity 6:</b>	<b>Improve DOED's capacity</b>				
	Review existing project approval process, database needs, and compliance monitoring requirements	Review Notes	28-Feb-03	31-May-03	Completed - Activity slightly delayed to accommodate other priorities
	Prepare terms of reference for developing and operating computer database management system and initiate execution	DBS SOW	30-Aug-03	31-July-03	Completed
	Design and implement database management system; identify targeted technical training needs and implement training program	Operating Data Base	31-Dec-03		Ongoing – revised and expanded work scope
<b>Activity 7:</b>	<b>Identify Issues and Constraints to Power trade under Power Trade Agreement with India</b>				
	Identify issues in the PTA regarding downstream benefit definition; Identify opportunities for and constraints to cross-border power trade;	Draft Report	05-Jul-03	31-Jul-03	Completed
	Study Indian market and develop export strategy paper for the short term	Strategy Document/Report	30-Aug-03	15-Nov-03	Completed
	Expand the strategy paper for long-term energy export	Strategy Document	31-Dec-03	15-Nov-03	Completed
<b>Activity 8:</b>	<b>Assist DOED in developing and analyzing project proposals, RFQs and RFPs from a financial perspective.</b>				
	Review and update RFP; validity of prequalified bidders	Technical Support	31-Aug-03	31-Aug-03	Technical Review Complete
	Conduct financial analysis of Kabeli-A Project	Benchmark Price	31-Aug-03	31-Oct-03	Initial analysis completed
	Finalize RFP for BOOT Projects to incorporate World Bank's review comments (including legal review)	RFP Document	31-Oct-03		Delayed pending PDF Board decision on AA and funding of projects

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
	Conduct project due-diligence workshop for DOED staff	Workshop	31-Aug-03	6-Jul-03	First presentation complete; Workshop proposed for 2004 in conjunction with activities 14, 26
<b>Activity 9:</b>	<b>Study and Review of Nepal's finance sector to promote domestic investment in hydropower.</b>				
	Review of existing laws and regulations regarding project financing	Technical Support	31-Aug-03		Priority lowered pending PDF commissioning; scheduled for 2004
	Discuss with IPPs and financial institutions	Technical Support	31-Oct-03		See above
	Prepare a strategy document	Strategy Document	30-Nov-03		See above
	Conduct workshop to discuss strategy document	Workshop	15-Dec-03		See above
<b>Activity 10:</b>	<b>Improve public awareness and participation in private hydropower development.</b>				
	Develop training modules for DOED and other GON staff to implement public outreach program (for 2004); media professionals	Training/Workshop			in conjunction with Activity 2, 24; scheduled for 2004
<b>Activity 11:</b>	<b>Improve transparency of local revenue sharing of hydropower benefits.</b>				
	Collect and analyze available information	Data Assembling	31-Aug-03	31-Aug-03	Completed
	Develop questionnaires to obtain field data	Questionnaire	30-Sep-03	30-Sep-03	Questionnaire completed;
	Field visits to hydro-project sites to interview VDC and DDC officials		15-Aug-03		Deferred because of security concerns?
	Draft report on findings with recommendations	Draft Report	01-Oct-03		See above
	Final Report	Report	1-Nov-03		See above



**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 12:</b>	<b>Build outreach and education programs to increase public support through information.</b>				
	Training Workshop for DOED and GON agencies on public outreach and education	Training/Workshop	2004		in conjunction with Activities 2, 24; scheduled for 2004
	Develop and implement public outreach and education programs		2004		
<b>Activity 13:</b>	<b>Perform training needs assessment for DOED and key institutions, complementary to SARI/E training program.</b>				
	Review training program	Document Review	07-May-03	07-May-03	Completed
	Update Training Needs Assessment / Revise Training Program for 2003	Activity Implementation Plan	01-Aug-03		Ongoing
<b>Activity 14:</b>	<b>Training Activities - Build Nepalese capacity for regional energy development and trade.</b>				
	Project Due-Diligence workshop	Review Workshop	31-Jul-03	06-Jul-03	Completed
	Project Due-Diligence workshop	2nd Workshop	15-Nov-03		In coordination with activities 8, 26; scheduled for 2004
	Electricity Pricing Concepts; project due-diligence	Training/Presentation	31-Oct-03		See above
	Electricity Generation Planning Techniques	Training/Presentation	31-Oct-03		See above
	Economic and Financial Analysis	Training/Workshop	30-Nov-03		See above
	Project Financing; Local Capital Investment	Training/Workshop	31-Dec-03		See above
<b>Activity 15:</b>	<b>Training Activities - Train DOED and GON staff on IPPs and power trade negotiations.</b>				
	Identify specific needs and prepare training materials; Identify specific training(s) in technical and negotiations skills; include training programs in WP 2004	Update TNA Report	31-Dec-03		Delayed pending GON review and adoption of strategy for marketing Activity 7

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 16:</b>	<b>Training Activities - Executive exchanges to promote energy reform consensus.</b>				
	Identify and arrange appropriate executive exchange program in consultation with DOED USAID		31-Dec-03		
	Conduct first executive exchange tour	Study Tour			Deferred to 2004
<b>Activity 17:</b>	<b>Training Activities -Study tours to Indian States to learn from various sector reforms.</b>				
	Plan Tour and identify participants. Likely destination Orissa and Maharashtra	Tour schedule logistics	31-Aug-03	30-Sep-03	Completed
	Conduct Tour and evaluate results	Study Tour	30-Nov-03	Nov-15-03	Completed
<b>Activity 18:</b>	<b>Train/assist relevant HMG/N agencies in EIA/SIA and public consultations.</b>				
	Provide on-the-job capacity building training to officers and employees of DOED and other counterpart agencies during the execution of this AIP	Training/Workshop	31-Dec-03		5 Day training conducted in April-May, 2003
	Collaborate with SchEMS on semi-annual EIA training courses, as well as short solicited courses by government agencies	Training/Workshop	31-Dec-03		Sponsored DOED staff for 2 training courses
<b>Activity 19:</b>	<b>Improve public hearings and documentation of stakeholder concerns.</b>				
	Develop draft good practice guidelines for Public Hearings and Public Consultation	Draft Guidelines	15-Sep-03	16-Oct-03	Completed
	Develop draft good practice guidelines on Gender Participation	Draft Guidelines	1-Sep-03	31-Dec-03	Completed
	Hold workshop on draft good practice guidelines for Public Hearings and Public Consultation	Training/Workshop	30-Sep-03	16-Oct-03	
	Hold workshop on good practice guidelines on Gender Participation	Training/Workshop	15-Oct-03		Scheduled for Feb 4-5 2004

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 20:</b>	<b>Advance impact monitoring and evaluation of benefits and equity issues.</b>				
	Review of 2002 workshop proceedings	Review Report	31-May-03	31-May-03	Completed
<b>Activity 21:</b>	<b>Develop and strengthen EIA/SIA capacity for mitigation, implementation and monitoring.</b>				
	Develop draft good practice guidelines on baseline data, impact analysis and mitigation measure	Draft Guidelines	15-Nov-03	15-Nov-03	Complete; being reviewed
	Training on draft good practice guidelines on baseline data, impact analysis and mitigation measure	Training/workshop	15-Dec-03		Delayed pending finalizing manual
<b>Activity 22:</b>	<b>Develop standards for certification of EIA/SIA professionals.</b>				
	Collect and analyze data from firms conducting IEE and EIAs	Data Analysis	30-Sep-03		Likely to be terminated based on workshop details
	Review and evaluate responses to voluntary certification/Alternatives	Strategy Paper	31-Oct-03		
<b>Activity 23:</b>	<b>Develop capacity for EIAs at Internationally Acceptable Standards.</b>				
	Prepare O&M Manual for PDF	Manual	31-Mar-03	31-Mar-03	Completed
	Prepare brochure for Licensing Procedures	Brochure	31-Aug-03		in conjunction with Activity 5
	Train GON in EIA Procedures	Training/workshop	15-May-03	29-Apr-03	Completed - in collaboration with NORAD
	Train GON in EIA Procedures	Training/workshop	31-Dec-03		Completed in coordination with Activity 18
	Develop outline for a complete licensing handbook and hold workshop	Training workshop	31-Dec-03		in collaboration with NORAD

**TABLE 2: NEPAL HYDROPOWER MANAGEMENT SYSTEM OUTPUT - 2003** (Continued)

Activity #	Description	Output/Deliverable	Planned Date	Actual Date	Status
<b>Activity 24:</b>	<b>Train public on disclosure and consultation concerning EIA.</b>				
	Finalize checklist on types of disclosure and public consultation	Checklist	30-May-03	30-May-03	Completed
	Prepare Good Practice Guidance document based upon IFC Manual	Guidance Document	30-May-03	30-May-03	Completed
	Conduct workshop for media (In conjunction with Activity 2)	Workshop	2004		Expected early 2004
<b>Activity 25:</b>	<b>Facilitate regional info exchange to resolve key issues.</b>				
	Explore regional EIA training program with SARI/E	Training/Workshop	31-Oct-03		Ongoing
<b>Activity 26:</b>	<b>Feasibility Study and Environmental Impact Assessment of Small (5-10 MW) Hydropower Projects)</b>				
	Develop contracting procedures, pre-qualify bidders, prepare contract documents, bid Receive, evaluate, and select subcontractors for feasibility studies and EIAs		30-Sep-03	28-12-03	Completed  Bids received; evaluation underway delayed because of significant difference in approach
	Award two subcontracts		15-Oct-03		Expected Feb 2004 –
	Monitor and provide oversight; the task will continue through 2004		31-Dec-03		See above; will start 2004

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

On July 6, 2003 USAID issued IRG contract amendment # 002 which increased the added a new contract line item (CLIN) 003 for the conduct of up to five feasibility studies and preparation of EIAs for small hydropower projects, to be conducted by new subcontractors. CLIN 003 provides only for subcontracting costs only and no such costs have been incurred, yet. IRG's costs incurred to carry out the activities are included in CLIN 001 and CLIN 002. The schedule of short-term technical assistance, cost summary by CLINs, and estimated percent completion by CLIN and status by subtask at end of current report period are shown on Tables 3 through 6.

**TABLE 3. SHORT TERM EXPATRIATE TECHNICAL ASSISTANCE  
(July– December 2003)**

<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 Moseley	13-Aug-03	23-Aug-03	10	001, 002	Activities 1,6,16 and 17
Pat Sonti	14-Aug-03	19-Aug-03	5	001	Activity 7
Shahid Ahmad	08-Sep-03	20-Sep-03	12	001	Activity 1
Mathew Mendis	30-Oct-03	05-Nov-03	5	002	Activities 18-25 + program overview
Charles Moseley	03-Dec-03	18-Dec-03	16	001, 002	Activities 1,6
Ejaz Khan	04-Dec-03	17-Dec-03	14	001, 002	Activity 1
Mary Webster	13-Dec-03	19-Dec-03	7	001, 002	Activity 1
Shahid Ahmad	13-Dec-03	18-Dec-03	8	001, 002	Activity 1

**TABLE 4. COST SUMMARY BY CLIN**  
(As of December 31, 2003)

<b>CLIN No.</b>	<b>Contract Budget</b>	<b>Total Claimed by 12/31/2003</b>	<b>Percent Budget To 12/31/2003 Expenses</b>
CLIN 001	\$2,981,228	\$1,401,845	47.0%
CLIN 002	\$2,218,867	\$1,003,395	45.2%
CLIN 003	\$497,578	0	0
<b>Total</b>	<b>\$5,697,673</b>	<b>\$2,405,240</b>	<b>42.2%</b>

**TABLE 5. PERCENT COMPLETION BY CLIN**  
(As of December 31, 2003)

<b>CLIN</b>	<b>Title</b>	<b>Expended Resources Percent</b>	<b>Estimated Activity Completion Percent</b>
001	Improved enabling environment for equitable and sustainable hydropower development	47.0%	40%
002	Strengthened environmental and social assessment procedures, with broadened stakeholder participation	45.2%	60%
003	Conduct Feasibility Studies and EIAs (subcontract expense only)	0	0

**TABLE 6. PERCENT COMPLETION BY ACTIVITY**  
(As of December 31, 2003)

Activity Number	Activity Description	Percent Complete
<b>CLIN 001 – Improved enabling environment for equitable and sustainable hydropower development</b>		
1	Support policy, legal, and regulatory reform and strengthen key institutions	50%
2	Facilitate policy dialogue between HMG/N and civil society groups	20%
3	Technical support to the DOED on one or more export projects	10%
4	Technical support to improve the "one window" mechanism	40%
5	Assist DOED in implementing the World Bank's Power Development Fund (PDF)	75%
6*	Improve DOED capacity	55%
7	Identify Issues and Constraints to Power trade under Power Trade Agreement with India	60%
8	Assist DOED in developing and analyzing project proposals, RFQs and RFPs from the financial perspective	30%
9	Study and Review of Nepal's finance sector to promote domestic investment in hydropower	20%
10*	Improve public awareness and participation in private hydropower development	35%
11	Improve transparency of local revenue sharing of hydropower benefits	30%
12*	Build outreach and education programs to increase public support through information	35%
13*	Training Activities - Perform training needs assessment for DOED and key institutions, complementary to SARI/E training program	80%
14	Training Activities - Build Nepalese capacity for regional energy development and trade	40%
15	Training Activities - Train DOED and GON staff on IPPs and power trade negotiations (Financial issues)	25%
16	Training Activities - Executive exchange to promote energy reform consensus	20%
17	Training Activities - Study tours to Indian States to learn from successful sector reforms	60%
26	Feasibility Study and Environmental Impact Assessment of Small (5-10 MW) Hydropower Projects	<b>20</b>
	<b>CLIN 001</b>	<b>40%</b>

\* These activities support CLIN 001 and CLIN 002

**TABLE 6. PERCENT COMPLETION BY ACTIVITY (Continued)**  
**(As of December 31, 2003)**

<b>Activity Number</b>	<b>Activity Description</b>	<b>Percent Complete</b>
<b>CLIN 002- Strengthened environmental and social assessment procedures, with broadened stakeholder participation</b>		
18	Train/assist relevant HMG/N agencies in EIA/SIA procedures and public consultations.	70%
19	Improve public hearings and documentation of stakeholder concerns	70%
20	Advance impact monitoring and evaluation of benefits and equity issues	40%
21	Develop and strengthen EIA/SIA capacity for mitigation, implementation and monitoring	70%
22	Develop standards for accrediting EIA/SIA Professionals	70%
23	Develop capacity for EIA/SIAs at or above World Bank or IUCN standards	70%
24	Train public on disclosure and public consultation concerning EIA/SIA	50%
25	Facilitate regional info exchange to resolve key issues	40%
<b>CLIN 002</b>		<b>60%</b>
<b>Estimated Overall Weighted Percent Complete (CLINS 001 and 002)</b>		<b>43%</b>



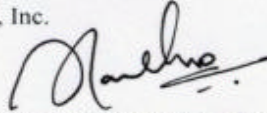
## SECTION II - COGNIZANT TECHNICAL OFFICER'S (CTO) REPORT

### AGENCY FOR INTERNATIONAL DEVELOPMENT MISSION TO NEPAL

#### MEMORANDUM

**DATE:** May 10, 2004

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

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

**SUBJECT:** CTO Comments on IRG's Semi-Annual Report #4, Private Sector Hydropower Development Project-2, IRG/USAID Contract No. 367-C-00-02-00011-00 in support of USAID's Strategic Objective 4.

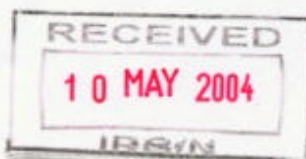
Please include the following in Section 2 of the fourth Semi-Annual Report for the period July 1, 2003 to December 31, 2003:

IRG submitted a draft of its fourth Semi-Annual Performance Report for the period July 1, 2003 to December 31, 2003 on January 31, 2004. On review of this draft the CTO made a few comments and discussed certain aspects of the report with IRG's Chief of Party. After these discussions, it was agreed that the report would be slightly modified to incorporate CTO's remarks and the final version completed as of the date of this letter.

As highlighted in the report, good progress continued to be made with regard to work plan activities although the economic and political situation continues to deteriorate due to the Maoist insurgency. A considerable increase in the number of survey license issued to the private sector and studies conducted for small hydropower projects, particularly in rural electrification and distribution sub-sectors, was encouraging. This is a clear indication of investor interest and confidence in the sector. There is an increased public awareness of the steady stream of royalty revenue to the GON and to affected local communities. These two factors, in addition to the progress made with regard to the Power Development Fund, suggests a possible accelerated turn around in private investment in the sector when the political situation improves.


In general, the second part of this year's activities may be described as relevant, appropriate, productive and within schedule. The report accurately describes progress accomplished during the reporting period.

CC: RCO: Raymond Edler; CO: Ram Gurung  
GDO: PKresge  
PPD: CJennings



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