



**MADHAV PRASAD KHAKUREL**

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**1. PERSONAL INFORMATION**

<b>NAME:</b>	<b>KHAKUREL, MADHAV PRASAD</b>		
<b>DATE OF BIRTH:</b>	March 16, 1950		
<b>NATIONALITY:</b>	Nepali		
<b>MARITAL STATUS:</b>	Married with two sons		
<b>PROFESSION:</b>	Electrical Engineer / Project Management		
<b>NEPAL ENGINEERING COUNCIL (NEC) NO:</b>	235 "Electrical" - "Ka"		
<b>NEPAL COUNCIL OF ARBITRATION (NEPCA):</b>	Life Member (Arbitrator/Adjudicator)		
<b>NATIONAL VIGILANCE CENTER (NVC/GoN):</b>	Certified Technical Auditor for Government Projects		
<b>LANGUAGES</b>	<b>Speak</b>	<b>Read</b>	<b>Write</b>
	English	good	good
	Russian	good	good
	Hindi	fair	fair
	Nepali	native	native

**2. EDUCATION** Master of Science in Engineering (Electrical), Leningrad Polytechnic Institute, Leningrad (former USSR), year 1976

- 3. TRAININGS / SEMINARS**
- Participation in two days' Seminar on Advanced Topics in Arbitration organized by Nepal Council of Arbitration (NEPCA) on January 11-12, 2015.
  - Participation in a Seminar on Introduction to Dispute Settlement – Basics of Claims / Adjudication / Arbitration organized by Nepal Council of Arbitration (NEPCA) on December 18, 2014.

- **Technical Auditors Training**, TITI, National Vigilance Center (NVC), GoN, Kathmandu, March-April, 2013. As a part of the training, performed the experimental technical audit of the Chilime Hydroelectric Station.
- "Basic Concepts of Finance Management", NEPCON, Kathmandu, Nepal, July 1996
- "International seminar and training on Power Network Control and Monitoring", Electricite de France International, France, November 19 – December 14, 1991
- "Electrical Power Management", JAICA & Chubu Electric Management Power Co., Japan (August 26–October 14, 1985)
- On-the-Job "Administrative Training", Ministry of Administration, HMG, Nepal, June – July, 1982
- "Project Planning & Appraisal", Industrial Services Center, Kathmandu October–November 1979
- "Computer Programming", various Computer Centers/Institutions, Kathmandu, Nepal, 1979-1992
- "Application of Modern Computing Methods & Digital Computers in Electrical Engineering", Leningrad Polytechnic Institute, Leningrad, USSR, March–July, 1976

#### **4. KEY EXPERIENCES**

The key experiences consist of the following activities in the field of electric generation, transmission and distribution system/projects:

- Feasibility studies
- Power system planning and optimization studies
- Survey, design and preparation of technical specifications
- Preparation of bidding and contract documents for the works and goods
- Evaluation of bids, contract negotiation, administration, management
- Construction supervision and overall project management
- **Assessment of claims and variation orders**
- **Dispute resolution through amicable settlements, adjudication and arbitrations**

#### **5. EXPERIENCE (EMPLOYMENT RECORD)**

June 2023 -	Consultant (Senior Contract Expert), NEA Engineering Co Limited, Thapathali, Kathmandu
May 2017 – July 2017	Chief Executive Officer (CEO), Himal Hydro & General Construction Ltd.
February 2016 – April 2018	Resident Consultant of EUROPEAN INVESTMENT BANK (EIB Luxembourg) for Nepal

The main responsibility of the Consultant consisted: to assist EIB during the post-signature phase of its sovereign projects in Nepal; and to assist EIB in the identification, selection, appraisal, approval and signature of future projects in Nepal, interaction with other co-financers; project implementation monitoring, etc.

**January 2016 –**

**Adjudicator / Arbitrator, Nepal Council of Arbitration (NEPCA)**

The task consisted of:

- **Arbitration** between Sinohydro Corporation Ltd, Beijing, Nepal Electricity Authority, Kulekhani III Hydroelectric Project (14 MW) (Civil Lot C-1), as Respondent (the Employer) under the UNCITRAL Arbitration Rules, in a Dispute on a Contract for Civil Works (in process of commencement).
- **Arbitration** between Mahalaxmi Wire and Cable Industries Pvt. Ltd as Claimant (The Contractor) and Nepal Electricity Authority, DCS Provincial Office, Attariya as Respondent (The Employer) (ongoing).
- **Arbitration** between Hetauda – Bharatpur 220 KV Transmission Line Project, Nepal Electricity Authority, as Respondent (The Employer) and Zhongding International Engineering co. Ltd., (Claimant) (discontinued).
- **DAB** in the Dispute in relation to the Contract between Sanjen Jalvidhyut Company Limited as Respondent (The Employer) and SEW – Tundi JV as Claimant (The Contractor) (completed).
- **Arbitration** between Nepal Electricity Authority, Generation Development Department, Kulekhani III Hydroelectric Project (14 MW) (Civil Lot C-1), Nepal, as Claimant (the Employer) and Sinohydro Corporation Ltd, Beijing, China, as Respondent (the Contractor), under the UNCITRAL Arbitration Rules, in a Dispute on a Contract for Civil Works (completed).
- **Adjudication** between Soubarna / Safal / Aatreya JV, Kathmandu as Claimant (the Contractor) and Department of Urban Development & Building Construction, Division Office, Ilam as Respondent (the Employer) in a Dispute on a Contract for the construction of the school hostel blocks in Sinam, Taplejung (completed).

**August 2014 – July 2015**

**Team Leader/Senior Power Analyst  
JV of SILT & ERM**

Consulting Services for Preparation of Guidelines for Power System Optimization of Hydropower Projects, awarded by Department of Electricity Development (DoED)/GoN, with involvement in overall project management, coordination, relation and consultation with DoED and Experts Panel in relation to the power system studies (planning and analysis using WASP and VALORAGUWA Software).

- April 2013 – March 2014**      **Chief Electrical Engineer**  
**SMEC International in association with / AQUAINERGIELLC, SCI & ERMC**  
**(Consultants)**
- Involved in Consulting Services of Sanjen (Upper) 14.8 MW, and Sanjen 42.3 MW Hydroelectric Projects, Sanjen Jalavidhyut Company Limited.
- May 2013 – June 2013**      **Technical Auditor**  
**National Vigilance Center, Government of Nepal**
- Involved in the Technical Audit of Upper Tamakoshi Hydroelectric Project (456 MW).
- Dec. 2011 – March 2012**      **Consultant**  
**Office of Auditor General, Government of Nepal**
- Involved in Technical Study of Chameliya Hydroelectric Project for its Performance Audit performed under the Office of Auditor General, Government of Nepal.
- April 2008 – Dec. 2009**      **Consultant / Advisor**
- KIST Medical College / Hospital
  - Gham Power Nepal (Solar)
- Involvement**
- Electrical installation works in KIST Medical College / Hospital, Lalitpur
  - Newly initiated Solar Projects launched by Gham Power Nepal, Kathmandu
- April 2008 – Sept. 2011**      **Project Manager / Consultant**  
**SACHADEV Charity Foundation, United Kingdom**
- Involved in the establishment of the temporary camp with prefabricated houses with all the necessary facilities including electricity and water supply in Mount Kailasa area of west Tibet for the Pilgrimage of over 500 devotees for RAM KATHA by Saint Morari Bapu of India.
- April 2008 – Dec. 2011**      **Team Leader of Project Expert Team**  
**LOWER MODI 1 Hydro Power Project (10 MW) in western Nepal**  
**United Modi Hydropower (P) Ltd**
- Led a team of civil, electro-mechanical and hydro-mechanical experts in the preparation of the technical specifications and complete bid and contract documents for the procurement of goods and works for the electro-mechanical, hydro-mechanical and 132 KV transmission line with associated switchyard and substation of the project. Assisted / advised the Client in the administration of the Contracts at all critical stages during the implementation of the project.

**Dec. 2005 – Mar. 2008**

**Project Director  
Middle Marsyangdi Hydroelectric Project  
Nepal Electricity Authority**

Then, the biggest ongoing, national priority project for the design, supply, construction, installation, testing and commissioning of all the works associated with the generation and evacuation of hydroelectricity to the Integrated Nepal Power System.

The project is of 70 MW Run-of-River type scheme with daily pondage for five hours designed to generate 398 GWh of average annual energy. The major components were: the construction / installation of concrete gravity and embankment dams, underground de-sanding caverns, tunnels, surge chamber, penstocks, and the semi-underground power house, electrical, mechanical and hydraulic equipment /

structures, the 132-kV transmission line and the associated 132 kV substations / switchyards.

Various international firms of European origin (Germany, Austria, etc.) and the Nepalese contractors had been engaged in the construction activities split into 10 lots. Engineering and construction supervision of the project had been carried out by the Fichtner Joint Venture, an international consultant. The Environment Impact Assessment and Monitoring of the Environmental Mitigation Measures were entrusted to TAEC / NESS, a local joint venture consulting firm. It was jointly funded by the Government of Germany through KfW, the Government of Nepal (GoN) and Nepal Electricity Authority (NEA). Out of the then estimated cost of Euro 273 million, 178 million was borne by the German Government / KfW, the rest by Government of Nepal and Nepal Electricity Authority.

**Involvement**

As the Project Director from the Employer (Government of Nepal / Nepal Electricity Authority), the general responsibility included the overall administration and management of the project. The activities consisted of the administration of the technical and financial activities under various contracts; administering of environmental aspects such as: environmental impacts mitigation measures, rehabilitation / resettlement of the project affected families, community development activities, etc. and coordination with various stakeholders such as governmental non-governmental agencies, related socio-political bodies and local communities for the smooth and uninterrupted implementation of the project.

Deeply involved in the settlements of contractual disputes (related to variation orders, claims, addendums, etc), accumulated over the years, through negotiations with the various contractors including DDC JV (Lot C - main civil contractor), Tundi Lama JV (Lot C4 - NEA / Engineer's camp), SAG (Lot TRL - transmission line), Alstom Power (Lot E - Electrical Equipment), Areva Alstom (Lot SS1 & SS2 - 132 KV Switchyard), VA Tech (Lot HSS - Hydraulic Structure), Voith Siemens (Lot M - Mechanical Equipment), TAEC/NESS (Environment) etc, and other disputes / issues/ problems (related to security, labor, old cement, insurance, etc). Some of the main activities relating to the critical disputes are as follows:

- Coordinated the activities relating to the identification and formation of the Panel of Counsels (Lawyers) and Arbitrators, preparation of the Statement of Defense and Counterclaims in the matter of Arbitration between DDC JV (Claimant) and NEA (Respondent) under the International Court of Arbitration, International Chamber of Commerce (ICC Case No.14169/JB/ JEM).
- Led the team of Project Claim Experts and the Legal Counsels of NEA in the first proceedings / hearing of the Arbitral Tribunal taken place in Paris, France.
- Participated in the strategic meeting with KfW Directors and Project Consultants / Engineers in Frankfurt, Germany, for discussion on the future course of action towards the settlement of disputes in the various contracts and earliest completion of the project.
- Coordinated for and participated in the joint High Level Meeting, as a member of the NEA delegates led by its Managing Director, with the DDC JV, convened by KfW in its office in Frankfurt, Germany. Chaired by PoE Chairman and participated by the delegates of KfW, NEA, DDC JV and the Consultants FICHTNER JV, the meeting discussed on various contractual issues / disputes raised by DDC JV and reached certain mutual understandings for the smooth continuation of the project works.
- Led the project team as Member Secretary of NEA's Committee in the negotiations with the Lot C Contractor DDC JV for the amicable settlements of their contractual claims followed by the discussions / negotiations on the contractor's proposal for the early completion of the project.
- Led the project team to assist the NEA Committee in the negotiation of the Lot C4 Contractor Tundi Lama JV for the amicable settlement of their claims. Assisted the Panel of Counsels in the preparation of the Statement of Defense and Counterclaim on behalf of NEA in the matter of Arbitration between Tundi Lama JV (Claimant) and NEA (Respondent) followed by the arbitral proceedings under Nepal Council of Arbitration (NEPCA), Kathmandu.
- Led the project team as to assist the NEA Panel of Experts for the study and assessment of the claims, variation Orders, time extension, cost estimates / disbursements, addendums, amicable settlements, arbitration, etc and submission of the recommendations to the NEA Board.

- Led the project team to assist the NEA Steering Committee for the study, assessment and recommendation to the NEA Board on matters of the various contractors' claims, variation Orders (VOs), time extension (EoT), construction program (CCP), addendums for consultancy services, re-appointment of project security advisors (PSA), revised cost estimates, disposal of old cement, acceleration of transmission line construction, etc.
- Led the project team in the several tripartite negotiation meetings between the NEA Committee led by a Board Member, concerned trade union leaders affiliated with various political parties and the DDC JV management, reached an amicable settlement of the acute labor problems/issues arisen within DDC JV, and resumed the suspended project works.

**May 2005 – Dec. 2005**

**Director  
System Operation Department  
Nepal Electricity Authority**

The System Operation Department is equipped with the state of the art Load Dispatch Center constructed under the financial assistance of the Government of Germany. Engineering and the construction supervision was provided by Fichtner, a German engineering firm. The center with SCADA system is gradually assuming a dominant role in managing the operation of the Integrated Nepal Power System.

**Involvement**

Responsible for overall system operation and control. Responsible for administration and management of load dispatching for the whole country.

**Sept. 2003 – May 2005**

**Project Manager**

**-Thankot-Chapagaon-Bhaktapur 132 kV Transmission Line Project (TCBTLP)  
-Hetauda-Bharatpur-Bardaghat 220 kV Transmission Line Project (HBBTLP)  
-Parwanipur-Birgunj 132 kV Transmission Line Project (PBTL)  
Nepal Electricity Authority**

The TCBTL Project was the second biggest component of the Rural Electrification, Distribution and Transmission Project being implemented with a loan assistance of US \$ 50 million from ADB & US \$ 10 million from OPEC Fund. GoN & NEA funded the local component of US \$ 34.5 million.

The project comprised of approximately 28 km of transmission line (26 km double circuits and 2 km four circuits) from Thankot to Bhaktapur and 132 kV and 66 kV substations to strengthen the power supply in Kathmandu Valley.

With the estimated cost of US \$ 17 million, the supply and construction of the project was entrusted to the Chinese Contractors with Nippon Koei of Japan performing the role of the Consultant.

However, the project, at a later stage, had to be discontinued / terminated due to the severe objection / obstruction from the local community.

The HBBTL Project was formulated to establish a 220 kV link between Hetauda and Bardaghat in order to supplement the existing single circuit 132 kV link which has been a severe bottleneck for the INPS transmission system.

The PBTL Project comprised of construction of one of the three 132 kV cross border transmission links between Nepal and India which was later dropped.

**Involvement**

In TCBTLP, responsible for design, preparation of bidding and contract documents for procurement of works and goods for the transmission lines and substations. Evaluation of bids, recommendations for award and contract administration. Also, responsible for administering the technical and financial management, environmental mitigation measures, etc. of the project.

In HBBTLP and PBTLP, responsible for the route alignment survey and environmental impact studies of the projects.

*Involvement included the activities related to the amicable settlements of the disputes raised by the various land / house owners along the right-of-ways concerning the offered prices of their land/houses and other related issues through negotiations and court proceedings in TCBTLP.*

June 2002 – Sept. 2003

**Project Manager**

**Rural Electrification, Distribution System Reinforcement Projects (RE/DSR)  
Nepal Electricity Authority**

The RE / DSR was the biggest component of over 80 million US \$ Rural Electrification, Distribution and Transmission Project being implemented with a loan assistance of ADB & OPEC Fund together with GoN and NEA (for local component). This is the biggest electrification project of national priority ever implemented in Nepal. The project included over 11 lots and 20 packages of various contracts for the new construction / rehabilitation, installation, testing and commissioning of the transmission / distribution systems and the associated substations in more than thirty districts of Nepal.

**Involvement**

Responsible for design, preparation of tender and contract documents for procurement of works and goods, evaluation of tenders, recommendation for award, negotiation and contract administration. Also, responsible for construction supervision, technical and financial management, environmental mitigation measures, etc. of the project.



**January 2001 –June 2002**

**Division Manager  
Bagmati – East Regional Office of Distribution & Consumer Services  
Nepal Electricity Authority**

This was one of the five Regional Distribution and Consumer Services offices in the country. Presently, this office of Kathmandu Valley is restructured with its office at NEA Headquarter.

**Involvement**

Responsible for administering electricity distribution and consumer services in the region. Responsibility included planning and implementing the expansion of distribution networks, managing consumer services, etc.

**Nov. 1999 – Jan. 2001**

**Manager  
Managing Director's Secretariat  
Nepal Electricity Authority**

**Involvement**

Involved in the various works under the Secretariat of the Managing Director of NEA. Major involvement included preparation of agendas, MoMs, etc. for Board Meetings

**Sept.1997 – Nov. 1999**

**Project Manager  
Khimti-Bhaktapur-Balaju 132 kV Transmission Line Project (KBBTL)  
Nepal Electricity Authority**

A national priority project comprised of over 100 km of 132 kV Transmission Line (single / double circuits) and two 132 kV Substations enabling the evacuation of hydroelectricity generated from two IPPs, viz. Khimti (60 MW) and Bhotekoshi (36

MW), jointly funded by the Government of Finland (FIM 70 million), Nordic Development Fund (SDR 25 million) and GoN and NEA (local component).

The transmission line was supplied and constructed by the Finnish Contractor IVO and the substations by another Finnish Contractor ABB Transmit OY. The engineering and supervision were done by PVO, also a Finnish company.

**Involvement**

Responsible for design, technical specifications, preparation of the bidding and contract documents for the procurement of goods and works, evaluation of the bids, recommendation for award, contract administration and construction supervision. Also responsible for administering the technical and financial management, environmental mitigation measures, etc. of the project during its implementation for the timely completion. Timely completion of the project was very much important as the transmission facilities had to be provided prior to the commissioning of the said hydro projects of IPPs.

*Involvement included the activities related to the amicable settlements of the disputes raised by the various land / house owners along the right-of-ways*

*concerning the offered prices of their land/houses and other related issues through negotiations and court proceedings.*

**July 1996 – Sept. 1997**

**Manager**  
**Transmission Line Construction Department**  
**Nepal Electricity Authority**

**Involvement**

Involved in various works such as planning, design, preparation of tender documents, and field supervision of construction activities, etc. of various transmission lines / substations projects undertaken by the Department.

**January 1993 – July 1996**

**Project Manager**  
**Duhabi - Kataiya (Nepal-India) 132 kV Interconnection**  
**Nepal Electricity Authority**

The Project comprised of construction of about 45 km of 132 kV transmission line between Nepal and India across the border of the two countries for the exchange of 50 MW of electric power. This was jointly funded by the World Bank, Indian Government and GoN / NEA. The Project was first of its kind to be implemented in Nepal interconnecting the two countries at 132 kV level. It was a core priority project of high national importance of the Government of Nepal.

Supply and construction was entrusted to Indian Railways Construction Co. (IRCON). The engineering and construction supervision was carried out by Tata Consulting Engineers, India.

**Involvement**

Responsible for design, preparation of the tender and contract documents, evaluation of tenders, recommendation for award and contracting, administering the technical and financial management of the project during its implementation and timely completion. Timely completion of the project was very much important as the transmission line was implemented to import power from India to meet the then acute power shortage of the country. The line has been playing a vital role since its establishment.

Involvement in the Project also included comprehensive coordination with various important agencies such as the World Bank, Bihar State Electricity Board and Central Electricity Authority of India, and the *amicable settlement of the Contractor's claims through negotiations.*

**Oct. 1993 – July 1994**

**Project Manager**  
**Kusaha-Hetauda 132 kV Second Circuit Transmission Line Project**  
**Nepal Electricity Authority**

This was a project undertaken with the World Bank and GoN/NEA financing as part of the well-known ARUN III project. The project could not move ahead due to the

termination of World Bank funding for Arun III (The project was completed later under different funding).

**Involvement**

Involved during the inception and preliminary design of the Project.

**May – Dec. 1993**

**Senior Electrical Counterpart Engineer  
CIWEC (Canada) for Trishuli - Devighat Hydroelectric Upgrading Project  
Nepal Electricity Authority**

The Project was undertaken for the rehabilitation and upgrading of the existing Trishuli (21 MW) and Devighat (14.1) hydropower run-of-the-river plants under World Bank, GoN / NEA financing with the objective to enhance the total firm capacity of the plants from 21.4 MW to 33.6 MW and the average annual energy from 187 GWH to 282 GWH.

The civil works were entrusted to the Larsen and Turbo (L&T) of India and the electromechanical works to Multipower Hydroelectric Development Corporation (MHDP) of China. Canadian International Water and Energy Corporation (CIWEC) of Canada were responsible for the engineering and construction supervision.

**Involvement**

In the review of Design Drawings and Supervision of Installation works as Senior Electrical Engineer.

**March 1991 – January 1993**

**Chief of Electromechanical Section  
Design Department, Engineering Directorate  
Nepal Electricity Authority**

**Involvement**

As Section Chief and Co – Director (1992 Feb. onward), involved in various works under the Engineering Directorate that included survey, feasibility studies, preparation of specification and tender documents for Duhabi – Kataiya 132 kV Nepal – India Interconnection Transmission Line with the expatriate consultants of EDF International (France) under the joint finance of France, GoN and NEA. Involvement also included the feasibility study of Modi Khola Hydroelectric Project under Korean and GoN / NEA finance and Solu Khola Small Hydroelectric Project under GTZ (Germany).

**Sept. 1988–Feb 1991**

**Deputy Project Manager  
Construction Directorate & Nepalgunj - Mahendranagar 132 kV TL Project  
Nepal Electricity Authority**

This was a national priority project and comprised of construction of 220 km 132 kV double circuit transmission line, 25 km of 33 kV line and four 132 kV substations under the joint finance of the Government of France, GoN and NEA with an estimated cost of 180 million French Francs and 143 million Nepalese Rupees. CEGELEC (France) was entrusted for the supply and construction whereas the

engineering and supervision was done by EDF International (France). This project enabled to transmit the electricity to far-west of the country.

**Involvement**

Responsible for design review, construction supervision, public relations and assisting the project manager in all of the project execution activities.

**August – Sept. 1988**

**Deputy Manager, System Control Department  
Nepal Electricity Authority**

**Involvement**

Involved in the works related to the system control and load dispatching under the System Control Department.

**April 1987 – Aug. 1988**

**Senior Electrical / System Planning Engineer  
Himalayan Power Consultants (HPC) for Karnali (Chisapani) Multipurpose and  
Upper Karnali Hydroelectric Projects  
Nepal Electricity Authority / Government of Nepal**

The Karnali (Chisapani) Multipurpose Hydroelectric Feasibility Study Project, jointly financed by the World Bank, GoN and NEA was the biggest single project ever studied in Nepal with the estimated installed capacity of 10,800 MW. The objective of the project was to evacuate the bulk electric power to the Northern Indian Power Grid through 400 kV transmission lines, to provide irrigation and flood control facilities. The detailed feasibility of these projects was entrusted to the HPC, an international consortium of four international consulting firms – ACRES and SNC of Canada, SHAWINIGAN and EBASCO of USA.

**Involvement**

As a senior electrical engineer and system planner worked with the expatriate consultants of HPC in the area of Generation Planning involving long range planning and computer simulation of operation of Nepalese and Indian power system, Transmission Planning involving the combined and separate load flow studies, power economic studies for the Indian and Nepalese systems and long range planning including power exchange scenario with India. The involvement also covered the Substation Design and Layout including switching schemes, powerhouse electro-mechanical equipment layout, etc.

**March – April 1987**

**Deputy Manager  
Bagmati Department, Distribution & Consumer Services Directorate  
Nepal Electricity Authority**

**Involvement**

Involved in various works related to distribution of electricity and consumer services under the Directorate.

**Aug. 1985 – Feb. 1987**

**In-Charge**

- Sunkoshi-Jiri 33 kV Transmission Line Project
- Rural Electrification Project
- Sunkoshi Hydroelectric Station

**Nepal Electricity Authority / Government of Nepal**

The Projects (6 no. of different independent projects) were comprised of construction / installation of over 500 kilometers of 33 kV, 11 kV and 400 V transmission / distribution lines, 66kV / 11 kV, 6.3 kV / 33 kV, 33 kV / 11 kV substations (5 no.) and over 300 no. of 11 kV / 400 – 220 V associated distribution transformers for the rural electrification in three districts, namely, Kavre, Sindhupalchowk and Dolkha under the finance of GoN and NEA of the estimated cost of 120 million Nepalese Rupees.

**Involvement**

Responsible for complete technical, commercial and managerial activities of the project. In addition, responsible for the operation and maintenance of existing 10 MW capacity Sunkoshi Hydroelectric plant. The entire scheme was financed by GoN / NEA.

**Jan. 1984 – Aug. 1985**

**In-Charge**

- Sunkoshi-Jiri 33 kV Transmission Line Project
- Rural Electrification Project
- Sunkoshi Hydroelectric Station

**Electricity Department (Government of Nepal)**

**Involvement**

Responsible for complete technical, commercial and managerial activities of the project. In addition, responsible for the operation and maintenance of existing 10 MW capacity Sunkoshi Hydroelectric plant. The entire scheme was financed by GoN / NEA.

**Jan. 1980 – Dec. 1983**

**Electrical Engineer**

**Kulekhani – I Hydroelectric Project**

**Dumkibas - Butwal 132 kV Transmission Line Project (3 Months)**

**Electricity Department (Government of Nepal)**

Kulekhani - I with 60 MW peaking capacity was the then biggest national priority hydroelectric project of the country financed by more than 8 international agencies including World Bank (major) and others. The major components of this high head project were the construction of a large rock fill dam, over 12 kilometers of underground waterway tunnels, underground powerhouse, over 700 meters

penstocks, and the associated electromechanical, hydro mechanical equipment, etc.

Sambu Construction of South Korea was the main civil contractor. Various Japanese (Okura / Fuji, Daihatsu, etc.), Indian (CIMCO, IHPP, BHEL, WIE, CROMPTON GREAVES, etc.) and Nepalese (NCCN, etc.) contractors were responsible for the various supply and construction works. Nippon Koei of Japan was entrusted for the engineering and construction supervision.

The Dumkibas - Butwal Project comprised of about 45 km of 132 kV transmission line and two associated 132 kV substations financed by the French Government.

CEGELEC of France was entrusted for the supply and construction of the project and EDF of France was responsible for engineering and construction supervision.

**Involvement**

The involvement in Kulekhani project included the site supervision of the construction, erection, installation, testing and commissioning of the generating equipment, 66 kV transmission and switching equipment of the main generating plant. The involvement also covered the supervision of the construction, installation, testing, and commissioning of the diesel plant, 66 kV / 11 kV substation, 11 kV and 400 V lines for the construction power. After the commissioning of the plant worked in its operation and maintenance. Likewise, carried out the survey, design, preparation of tender and Contract documents for the works and goods, recommendation for award, site supervision, etc. of the 11 kV distribution networks for the electrification of the villages in the vicinity of the project. During this period worked with the expatriate consultants of Nippon Koei (Japan).

For three months within this period, also worked for Butwal – Dumkibas 132 kV transmission line project.

**July 1976 – Dec. 1979**

**Electrical Engineer  
Design, Planning & Budgeting Division  
Electricity Department (Government of Nepal)**

**Involvement**

Involvement covered the various works like: planning, budgeting, survey, feasibility studies, preparation of design, specification, bidding documents for various 132 kV and 33 kV transmission lines / substations, rural electrifications and the small and micro hydroelectric projects undertaken by the Department.

*In addition to above, other experiences include the Electrical installation of Teaching Hospital in Kathmandu under Japan Government's finance; Electrical Installation of Kathmandu International Airport - Control Tower Building under Japanese finance; Drinking Water Project in Tansen (western Nepal) also under Japanese finance; Feasibility study of Solu Khola small hydroelectric project in Solukhumbu (Nepal) under GTZ (Germany), etc. at various time in the past. . also at various projects at present time too.*

**6. SHOP INSPECTION**

During the period of the above assignment under Electricity Department and Nepal Electricity Authority, the following factories / shops were visited for the inspection of the various equipment manufactured for the various projects:

- Bharat Heavy Electrical Limited, Bhopal for Kulekhani - I generators.
- Kirloskar, Bangalore for Power Transformers.
- Mysore El. Industries, Bangalore for 33 kV Switchgear & Control Panels.
- High Tension Insulators Factory, Ranchi for 33 & 11 kV Insulators.
- France & Spain for 132 kV Tower Tests.
- BHEL – Benglore & Jayashree – Calcutta for Insulators.
- IAC – Delhi for Conductor and Calcutta for Earthwire / Hardware.
- Tata Consulting Engineers, Bombay for study of Electricity Generation, Transmission and Distribution system.
- Beijing and Sian, China for High Tension Switchgear.
- ABB, Finland for Transformer Factories.
- ALSTOM, Brazil for Generator parts of MMHEP
- Various factories in China and India for the electromechanical equipment of Modi-1 Hydropower Project
- Factory in Chengdu for Mount Kailash Pilgrimage Project

**7. CONFERENCES / MEETINGS**

- 10<sup>th</sup> International Youth Festival, East Berlin
- National and International Conventions of Engineers, Kathmandu
- International Afro – Asian Conferences on Hydropower Development, Kathmandu
- First Asia Meet of former USSR and CIS Foreign Graduates, Kathmandu
- Second Asia Meet of former USSR and CIS Foreign Graduates, Hanoi
- World Forum of the former USSR and CIS Foreign Graduates, Moscow
- Achievement Conferences, Seminars / Talk Sessions, Cruise, etc., Barcelona, Goa, Calcutta, Delhi, Bombay, Pune, Kathmandu, Greece, Turkey, London
- High Level Meetings, Arbitration Meetings for Middle Marsyangdi Hydroelectric Project in Paris, Frankfurt, Munich, etc.

- Meetings for various undertakings in Beijing, Chengdu, Shanghai, Lhasa, etc.
- International Conference on the Hydropower Development of Bhutan
- District Conventions (Nepal) and International Conventions (Seoul / South Korea, and Atlanta / USA) from Rotary

#### **8. AWARDS / APPRECIATIONS**

- Selected for Ph.D. in Electrical Engineering by Leningrad Polytechnic Institute for sound academic performance during engineering study in the institute.
- **Gorkha Dakshina Bahu** by the then His Majesty King Birendra for the outstanding work with tenacity of purpose for the completion of the Kulekhani-I Hydroelectric Project
- Appreciations from the various organizations

#### **9. MEMBERSHIP**

- Nepal Council of Arbitration (NEPCA)
- Nepal Engineering Council (NEC)
- Nepal Engineers' Association (NEA)
- Nepal Electrical Engineers' Society (NEES)
- Nepal National Hydro-power Association (NHPA)
- JICA Alumni Association of Nepal
- Mitra Kunja (Alumni of Soviet and CIS Graduates)
- Nepal-Finland Friendship Society

#### **10. COUNTRIES VISITED**

Former USSR, Germany (East & West), Belgium, Holland, Great Britain, France, Italy, Spain, Greece, Finland, Norway, Sweden, Japan, Hong Kong, Thailand, India, China, Vietnam, Bhutan, Brazil, USA, Singapore, Turkey, Russia, Switzerland, Canada, South Korea, etc.

#### **CERTIFICATION:**

I, the undersigned, certify that to the best of my knowledge and belief, this information correctly describe my qualifications, my experiences, and me.



Madhav Prasad Khakurel  
Electrical Engineer / Project Management