



IPPAN

Message from IPPAN President

Dr. Subarna Das Shrestha



I am pleased to greet you in the capacity of the president of IPPAN. I feel fortunate, honored and challenged to have the opportunity to lead IPPAN at such a crucial time for Nepal's Hydropower sector. On one hand people from all walks of life agree that the country's prosperity is directly linked to hydropower development and on the other hand there seems to be no end to the ever increasing load shedding problem that we are facing, let alone addressing the need to provide basic electricity services to all citizens of the country. Thus, the road ahead in Hydropower development is difficult but with concerted efforts forms all us together we can surely remove all the obstacles and pave the way to prosperity of the Nation.

By bringing in Independent Power Producers of the country together, collaborating with the government and disseminating facts and ground realities on Hydropower development, IPPAN has carved a special niche in Nepal's Power sector. I would like to thank my predecessor, Dr. Sandip Shah for his guidance and his leadership in IPPAN which has brought this organization to this stage. Similarly, my heartfelt gratitude goes to all past Executive Members for their commendable work.

As in the past, lobbying and advocacy for the creation of investor friendly environment will remain the strategic focus of IPPAN. We have initiated to form several sub committees such as PPA Tariff sub-committee, Power Development Fund sub-committee, Hydropower Policy, Electricity Act review Sub-committee, Power seminar sub-committee to ensure that power issues are studied in professional manner and pragmatic recommendations are put forth to the executive committee for the development of Hydropower in Nepal through private investment. The regular activities such as Newsletters publication, Friday Forums, Hydropower conferences, workshops on capacity building, media training and liaising with other stakeholders will remain continue.

Fortunately or unfortunately, we have lot of issues for which we need to lobby and advocate consistently and tirelessly. We still need to continue dialogue with the government regarding issues related to private sector investment in power sector. The Policies, Acts, Rules and Regulations have to be consistent, sustainable and investor friendly. The financial incentives to be provided by the government have to be attractive enough to lure investors in power projects. There are still rooms for improvement in the Project Development Agreement (PDA). We feel that the reforms made in power sector has been rather slow, compared to the urgency to end the load shedding at the earliest time possible. The long term goals of the government of generating 10,000 MW in 10 years and 25,000 MW in 20 years are indeed praiseworthy and encouraging. However, the first step in achieving these goals should be to aim at generating 4000 MW – 5000 MW in the next five years. It should be noted that private sector is considering implementation of some aggregate 1700 MW of hydropower projects that are at different stages of development (PPA to construction). With investment friendly climate including reasonable returns on investments, the private sector could immediately take on these projects for implementation. The bottom line is that first we need to focus on resolving immediate problems and then tackle those that may come in the distant future.

In the last fiscal year's budget Government has brought a package of few incentives such as zero VAT in Electromechanical equipment and steel plates for penstock pipe and income tax holidays full for first 7 years and half for another 3 years which definitely encouraged to us. But this is only did not capable us to compete with ever growing market price, inflation and interest on debt financing. The gravity of the situation demands that the government immediately announce a special package plan to attract investors in power sector, both National and International. The incentives to be provided should include zero VAT, only 1% custom duty for all construction materials to be imported, income tax holiday for 15 years and a valid generation license period of 40 years both for domestic and export. These incentives could remain in place until Nepal's installed capacities fulfill the gap between demand and supply and ability to export becomes realistic.

Other vexing problems plaguing Independent Power Producers include PPA tariff rates that reflect real

market conditions. Provided that Government revises PPA tariffs, about 175 power projects with the total capacity of above 1700 MW could enter implementation stage, thereby substantially reducing the load shedding hours by the year 2015-2017, if not completely eliminating them. Other problems include the need for a separate Power Development Fund to cater to the equity and loan requirements of power developers. Though, we have Power Development Fund, funded by the World Bank, the prospective developers have not been able to receive loans from this fund due to stringent conditions applicable.

I am also pleased to announce the launching of a power book, called 'Hydropower Nepal' by IPPAN in the near future. This book will give readers comprehensive accounts of Nepal's power development activities,

Vision of IPPAN

To be the umbrella organization of IPPs that advocates for an investor-friendly environment for power development in Nepal.

Mission of IPPAN

- » Lobby for private sector friendly policies, regulations and their prompt and effective implementation.
- » Disseminate information through media, seminar, conferences to political parties, government, Officials, civil societies and the people.
- » Build capacity of IPPs and related stakeholders.
- » Develop linkages for regional co-operation in power Sector.

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including Nepal's history, institutions involved in power development, recent progresses, and details of all three major river basins in the country. The more attractive thing is that this book is prepared by one of the Executive Member of IPPAN Mr. Khadga B Bista, whose rigorous efforts enable us to bring the book in existence. I heartily would like to thank him.

The IPPAN President is also one of the co-chairman of the Infrastructure Working Group of the Nepal Business Forum. The other Co-chairman is Energy secretary of the Ministry of Energy. The Nepal Business Forum is a forum for public private dialogue, initiated by the International Finance Corporation (IFC). The member institutions of the Infrastructure Working Group are: IPPAN, Federation of the Contractors' Association, Nepal

(FCAN), Computer Association of Nepal (CAN) and Internet Service Providers' Association, Nepal (ISPAN). The issues, for the first step, tabled by IPPAN in the Nepal Business Forum are: VAT Exemption, need to speed up implementation of cross border transmission lines and the need for consultative approach from DoED/NEA and Ministry of Energy. One of my objectives during my tenure as the President of IPPAN is also to initiate the practice of resolving various issues and bottlenecks through public - private dialogues. It is high time that both public and private sector sit on the same side of the table and resolve such issues.

Similarly, one of the major roles I perceived is to strengthen IPPAN by collecting all the IPPS involved in Hydropower Development in Nepal under the umbrella

of IPPAN so as to bring forward its existence further up. I will be focusing on an investor friendly environment towards Hydropower development in Nepal through dialogues, lobbying and seminars; engaging the stakeholders in formulation of friendly policies and regulations and its effective implementation. The capacity building of the IPPs is the next major focused area to be considered.

Please allow me to end my message by wishing you all "A VERY HAPPY AND PROSPEROUS NEW YEAR 2011" and take this opportunity to thank all IPPAN member companies for your trust to delegate this responsibility as IPPAN President to me. I look forward to working together with you in "Empowering Nepal through Private Sector Investment in Hydropower" during my tenure.

IPPAN ACTIVITIES

The 9th Annual General Meeting of IPPAN



Formal Session

In the Formal session of the 9th AGM held in the evening in the same venue, Hon'ble Dr. Prakash Sharan Mahat, Minister for Energy, Hon'ble Mr. Padma Jyoti, CA member, and First Secretary of Royal Norwegian Embassy, Ms. Anne Odegard Elizabeth presented key note speeches on Role of Private Sector in Nepal's Hydropower Development, The Social, Political and Economic Dimensions of Nepal's Hydropower, and A Norwegian Perspective to Nepal's Hydropower Development, respectively.

The theme of the keynote speeches was economic development of Nepal through hydropower.

Hydropower Seminar on Nepal's Hydropower (1911-2010) under Scanner & The Way Forward

May 24, 2010



A half day Hydropower seminar with the above theme was organized on May 24, 2010 at Hotel Shangri-La, Kathmandu, Nepal by IPPAN on the occasion of Pharping Powerhouse Centenary Year Celebration-2066 BS. The program was organized at the request of the National Coordination Committee for celebrating 100 years of the commissioning of Nepal's first powerhouse at Pharping.

May 31, 2010

Closed Session

The closed session of the 9th Annual General Meeting of IPPAN was held in the Durbar Hall of Hotel Yak and Yeti on May 31, 2010. Dr. Sandip Shah, in his President's report, made following remarks.

"IPPAN is ten years old and has been recognized well nationally and internationally. We are now recognized as a major stakeholder in the power sector of Nepal. The time has come for me to hand over the baton to new leadership. However, I will continue to lend my support and guidance as and when necessary. The new leadership should remain focused on IPPAN's objectives to support the overall growth of power sector in Nepal, with emphasis on increased investments from the private sector.

There has been a surge of activities in Nepal's hydropower sector in the recent years. The Government of Nepal made public two reports: Ten Year Plan to generate 10,000 MW, and Twenty Year Plan to generate 25,000 MW. Both reports were important milestones in the hydropower history of Nepal. IPPAN members were also involved in the



preparation of the reports. What we need now is the honest implementation of the recommendations made in both the reports.

Plans are under way to construct the 400 kV cross border transmission lines between India and Nepal. Government of Nepal is mulling over the plan to strengthen the existing transmission lines within Nepal which is a welcome step.

We have already seen approximately 160 MW of hydro generation from the private sector in the last ten years. There is a pipeline of projects that can easily add approx. 4000 MW to the generation capacity in the next ten years."

Treasurer of IPPAN's Executive Committee, Mr. Suman Basnet presented the Financial Statement for the F/Y 2065/66 BS.

Mr. Gyanendra Lal Pradhan, the Executive Committee Member, while presenting paper on the above subject noted that the generation of mere 700 MW of power within a span of 100 years, was far from satisfactory. He observed that the next three years were critical for the power sector. The Hon'ble State Minister for Energy, Mr. Chandra Kishore Bhattarai was the Chief Guest of the seminar. The seminar was also attended by Energy Secretary, Mr. Shanker Koirala, and Secretary of the Water and Energy Commission Secretariat, Mr. Kishore Thapa. Mr. Ram Kumar Basnet of Pharping shared the past, present and the future (as per proposed Master Plan) of the Pharping powerhouse.

Press Conference of IPPAN

November 22, 2010



Dr. Subarna Das Shrestha presided over IPPAN's Press Conference to make public IPPAN's official comments to the recent budget speech for the year 2067/68 BS.

The Press Release stated that the NEA was offering tariff rate of Rs.4.55 per unit (average rate) to IPPs for power projects below 25 MW. IPPAN had asked for new tariff rate of NRs. 5.99 per unit for IPPs and Dr. Das said that IPPAN was expecting Power Development Fund from the budget. He informed the media that IPPAN had already submitted a concept paper on the establishment of power fund to the Ministry of Finance and Nepal Rastra Bank. Dr. Shrestha added that IPPAN had expected zero VAT in civil construction materials like cement and steel rod and income tax holiday for 15 years.

Mr. Gyanendra Lal Pradhan said that the rate of return on power project was 9% while the bank interest has gone up to 14%. Therefore, the investors have to be provided incentives by zero VAT exemption, revised PPA tariff and liberal income tax holiday of fifteen years.

Representation from the media included The Kantipur, The Kathmandu Post, Kantipur Publications, Nagarik Daily, My Republica, Karobar Daily, The Rising Nepal, Naya Patrika, Arthik Abhyan, The Himalayan Times, Arthik Dainik, Rajdhani Daily, National TV, Sagarmatha TV, Naya Samachar Patra, and NTC (Urja).

Meetings

IPPAN Delegation Team meets with Energy Secretary

IPPAN's delegation team led by Dr. Subarna Das Shrestha met with Mr. Shanker Koirala, Secretary, Ministry of Energy on June 14, 2010. Also present in the meeting were: Mr. Bijaya Man Sherchan of Pashupati Energy, Mr. Mahendra Lal Shrestha of Mai Valley, Mr. Anand Subedi of Tundi Power, Mr. Prabin Shrestha of ICTC, Ms. Puja Chand of Grid Nepal, Mr. Pradeep Gangol of IPPAN, Mr. Anup Kumar Upadhyaya, Mr. Sriranjana Lacoul and Joint Secretaries, Ministry of Energy.

Dr. Subarna Das Shrestha said that the provision of performance bank guarantee at the rate of Rs. 600 per kW was an extra burden to IPPs, who are already struggling hard with very unfavourable investment climate. He therefore requested the government to cancel the provision immediately. Other IPPAN members opined that they had no objection in punishing those license holders, who sit idle and are not serious about the implementation of the project. However, the genuine developers should not suffer unnecessarily, simply because they could not meet the target of RCoD by a few days. They added that no one can guarantee about meeting the RCoD deadline in today's politically volatile situation.

IPPAN Delegation Team meets with Hon'ble Dr. Prakash Sharan Mahat, Minister for Energy

Dr. Subarna Das Shrestha, Mr. Gyanendra Lal Pradhan, Mr. Bijaya Man Sherchan and Mr. Pradeep Gangol met with Hon'ble Dr. Prakash Sharan Mahat, Minister for Energy, Government of Nepal on June 22, 2010 to discuss on issues related to the problems of independent power producers.

In the light of the preparation for the forthcoming budget 2067/68 and the economic regulation 2067, Dr. Subarna Das Shrestha requested the Hon'ble Minister to take IPPAN's demands into serious consideration. The demands included VAT exemption in civil construction materials, custom duties exemption in the import of construction materials and equipments, PPA rates of Rs. 5.99 per unit, price escalation of 5% for nine consecutive years, power development fund, income tax holiday of ten years, and subsidy for high bank interest among others.



Other IPPAN members demanded that the recent provision of bank performance guarantee must be cancelled immediately, as it acts as a deterrent to genuine developers as well to invest in hydropower.

IPPAN team meets with Mr. Mahendra Nath Aryal, Chairman, Electricity Tariff Fixation Commission (ETFC)

Mr. Bijaya Man Sherchan of Pasupati Energy, Mr. Bal Sundar Malla of Cemat Power, Mr. L.B.Thapa of Welcome Energy, Mr. Mahendra Lal Shrestha, Mr. Gorakh Rana and Mr. Rajib Giri of Standard Chartered Bank and Mr. Pradeep Gangol of IPPAN met with Mr. Mahendra Nath Aryal, Chairman, Electricity Tariff Fixation Commission to discuss on matters related to proposed hike on consumer tariff.

Responding to the requests of IPPAN members to increase the consumer tariff, as proposed by NEA, Mr. Aryal informed that the tariff hike in consumer tariff will be modest, with cross subsidy to poor consumers. He also informed the team that ETFC was requesting a reform plan to improve the financial health of NEA. He opined that NEA should come up with plans like reducing non-technical losses, payment of arrears, ways to capitalize the capital cost of the project, revising the relending rates of the Ministry of Finance, downsizing the NEA staff, and unbundling of NEA etc., under a suitable time frame.

Meeting at the Ministry of Energy

October 3, 2010

IPPAN delegation team consisting of 26 IPPs met with Hon'ble Minister of Energy, Dr. Prakash Sharan Mahat. The delegation team was led by Dr. Subarna Das Shrestha. Mr. Sher Singh Bhat, Director of the Power Trade Department of NEA was also present in the meeting.

Dr. Subarna D. Shrestha presented IPPAN's viewpoint on the newly introduced provision of performance bond. He said that the performance bond was an additional burden to IPPs, and requested to cancel it immediately since it will discourage the IPPs. He also added that IPPAN has no objection, if the government punishes the IPPs who fail to implement the power project.

Dr. Mahat gave some directives to develop mechanisms so that developers who have made substantial progress in the construction of civil structures receive refund of the performance bond.

Meeting with Dr. Baburam Bhattarai, Vice Chairman of the Maoist Organization

October 4, 2010

An informal meeting was organized between IPPAN Team, led by Dr. Subarna Das Shrestha and Dr. Baburam Bhattarai. The IPPAN team consisted of Dr. Sandip Shah, ex President, Mr. Kumar Pandey, General Secretary, Mr. Gyanendra Lal Pradhan, Mr. Krishna Acharya, Mr. Pashupati Murarka and Mr. Pradeep Gangol, Executive Manager.

The agenda of the meeting included the recent Press Statement of IPPAN and its repercussions on the power sector.

Dr. Subarna Shrestha commented that the press statement had stained the investment climate of Nepal's power sector. This thought was reiterated by other members of the team. Dr. Bhattarai remarked that power developers should be encouraged at any cost since money available with Nepal's local banks are not sufficient to develop power projects at the rate of 1000 MW per year to reach the target of generating 10,000 MW within ten years. He also requested IPPAN to submit IPPAN's vision on power sector development of Nepal.

The meeting adjourned on a note that a follow up meeting will be organized soon with IPPAN.

Meeting with Mr. Mahendra L. Shrestha, Deputy Managing Director-NEA

October 6, 2010

The IPPAN delegation led by Dr. Subarna Das Shrestha met with Mr. Mahendra Lal Shrestha, Deputy Managing Director-NEA. The main agenda of the meeting was the recently introduced provision of performance bond. Dr. Shrestha argued that the new provision meant additional burden for serious and genuine IPPs. Since there is already a provision of deposit of performance guarantee at the rate of Rs.1000 per kW, the performance bond of Rs.600 per kW was unnecessary and therefore should be called off. Dr. Shrestha reiterated the meeting discussion with the Hon'ble Minister for Energy, Dr. Prakash Sharan Mahat who had agreed to release the performance bond depending upon the physical progress made at the site with regard to construction of civil structures and supply and erection of electromechanical equipment.

Meeting of Hydro-Developers of joint ventures power companies

October 7, 2010



An informal meeting of hydro-developers of joint venture power companies was held at the IPPAN Secretariat. The meeting was represented by SN Power,

GMR/Upper Karnali, SVJN/Arun III, Everest Power, Jindal Power Ltd, GMR Ltd. and Brasspower Ltd.

The main agenda of the meeting included the recent Press statement of the Unified Communist Party, Nepal-Maoists regarding the joint venture hydropower projects of Nepal and the Project Development Agreement (PDA) of the Government of Nepal.

The meeting decided to initiate dialogue with UCPN-Maoists regarding their policy and position on joint venture hydropower projects. The meeting also concluded that the PDA contained many "wishful thinking clauses" like free energy and royalty and that these clauses were sufficient enough to deter any potential investors from investing into Nepal's power projects. The meeting also decided to initiate marketing campaigns to raise awareness among the public about Nepal's power issues.

Infrastructure WG Meeting of the Nepal Business Forum

October 12, 2010

A formal meeting of the Infrastructure WG Meeting of the Nepal Business Forum was organized at the Ministry of Energy to discuss on issues submitted formally by IPPAN, the Federation of the Contractors' Association, Nepal (FCAN) and the Computer's Association of Nepal (CAN).

The meeting was attended by Dr Subarna Das Shrestha, Mr. Rajendra Kishore Kshatry, Acting Energy Secretary, Mr. Sriranjana Lacoul, Joint Secretary, Ministry of Energy, Mr. Bimal Koirala and Mr. Sayef Tanzeem Qayyum from IFC. Also present in the meeting were Mr. A D Lama from FCAN and Mr. Binod Dhakal from CAN as well as officials from the Ministry of Physical Planning, Ministry of Finance, Ministry of Communication, Nepal Electricity Authority and independent power producers associated with IPPAN.

The issues put forward by IPPAN were:

- ▶ VAT Exemption on hydropower industry as one of the tools to increase its competitiveness;
- ▶ Implementation of the proposed Cross Border Transmission Line;
- ▶ Consultative Approach needed from NEA/DoED/MoEn regarding changes in the rules and regulations, to take power developers into confidence.

Meeting with the Coordinator of the Water Resources Committee of UPCN-Maoists

October 12, 2010

An informal meeting was organized in the Headquarters of the UPCN-Maoists at Paris Danda, Koteswor to discuss on issues related to the recent Press statement of the Maoists regarding the joint venture hydropower projects of Nepal. Present in the meeting were Mr. Lila Mani Pokharel, Dr. Laxmi Prasad Devkota, and Mr. Padma Khadka from UPCN-Maoists.

IPPAN delegation comprised of Dr. Subarna Das Shrestha, Mr. Gyanendra Lal Pradhan, Mr. Kumar Pandey, Mr. L.B.Thapa, Mr. Kiran Malla, Mr. Shailendra Guragain and Mr. Hari Bairagi Dahal, President of the Small Hydro developers' Association, Nepal (SHDAN).

IPPAN delegation meets with ETFC Chairman

November 11, 2010

Dr. Subarna Das Shrestha, along with the IPPAN team, met with Mr. Mahendra Nath Aryal, Chairman of the Electricity Tariff Fixation Commission (ETFC). The agenda was issue of adjustment in consumer tariff being long overdue. The consumer tariff was not increased since last ten years, when Consumer Price Index (CPI) rose up by 6 – 10 %. Due to the present PPA tariff, it was not possible to achieve internal rate of return of 16 %. Hence, IPPs were reluctant to jump into implementation of the power projects.

The team requested ETFC Chairman to recommend reasonable tariff adjustment, so as to enable NEA to revise the PPA rates for IPPs in a reasonable way.

Meeting with World Bank

A meeting was organized at the IPPAN Secretariat at the request of the World Bank and was attended by Mr. Raghu Vir Sharma, Director and Mr. Pravin Karki, Senior Hydropower Engineer from the World Bank, and Dr. Subarna Das Shrestha, Dr. Sandip Shah, Mr. Narendra Prajapati and Mr. Pradeep Gangol, from IPPAN.

Dr. Manoj Shahi, Chartered Financial Analyst, was invited as a special invitee to brief the World Bank team about the proposed Nepal Power Fund. Mr. Raghu Bir Sharma hinted that the World Bank is also interested to put money into the fund.



Meeting of the Infrastructure Working Group of the Nepal Business Forum on Agenda setting

November 16, 2010

An agenda setting meeting of the Infrastructure Working Group of the Nepal Business Forum took place at IPPAN from November 16-17, 2010. Present in the meeting were Mr. Andrew Proctor, Mr. Bimal Koirala

and Mr. Sayeef Tanzim from the International Finance Corporation (IFC) and Dr. Subarna Das Shrestha and Mr. Pradeep Gangol from IPPAN.

The meeting discussed on the additional issues submitted by IPPAN including PPA tariff, annual tariff escalation, one window policy and Power Development Fund.



Meeting between ICH and IPPAN

November 17, 2010

Dr. Subarna Das Shrestha, Dr. Sandip Shah and Mr. Pradeep Gangol met with Mr. Tore S. Jorgensen, Managing Director of the International Centre for Hydropower and discussed about possible co-operation between ICH and IPPAN in the coming years. Dr. Shrestha proposed that ICH and IPPAN should jointly organize training programs to enhance the technical and managerial capacity of the power companies of Nepal and South Asia.

Mr. Jorgensen informed that ICH has submitted a project proposal to NORAD for organizing training programs in Nepal once a year. The project will last for five years from 2011–2016 and ICH would be happy to work with IPPAN as a local partner.

Dr. Sandip Shah requested ICH to organize customized courses for the benefit of power companies of Nepal and South Asian countries.

It was agreed that the first training will be organized on Hydropower Financing and Project Economy in Kathmandu, Nepal. The week long training will be held tentatively after Tihar festival during November, 2011.

Meeting between IPPAN and NEA on Performance Bond

November 21, 2010

The meeting organized on November 21, 2010 the third one in the series of meeting on performance bond decided that PB provisioned in PPA would be extended for the lowest of either 'for a maximum time period of twelve months' or 'for a time period requested by IPPs', provided that the projects have achieved at least 50% physical progress in the project. Such physical progress must be certified by the independent consultant and the IPPs desiring to request such extension must make a written application to NEA at least 45 days prior to the RCoD.

Special General Meeting

The Special General Meeting of the Independent Power Producers' Association, Nepal held at Hotel Shangri La on August 27 2010 elected unanimously President, Secretary General, Treasurer and executive members of IPPAN. The officer bearers elected were : Dr. Subarna Das Shrestha- President, Mr. Kumar Pandey- Secretary General, Mr. Narendra Prajapati – Treasurer. The executive members elected unanimously were: Mr. Dikendra Raj Kandel, Mr. Gyanendra Lal Pradhan, Mr. Moti Lal Dugar, Kiran Malla and Mr. Pashupati Murarka.



FRIDAY FORUM

1. Power Transmission Company and Energy Wheeling in the Nepali context

Surendra Rajbhandari | 21st May, 2010

NEA started the transmission expansion plan in the early 1980s. EDF was hired to prepare 10 year transmission plans. Nor Consult prepared another TSP in 1998 for a planning horizon of 20 years. This TSMP recommends a 220 kV grid. The TSMP is based on providing adequate import capability to meet the demand. Due to congestion, NEA has not been able to carry out PPA with IPPs. This factor among others has discouraged any private sector participation. The current transmission system urgently requires significant upgrading and replacement of portions of original infrastructure to match up to the projected electricity future.



Increased transmission capability will help ensure reliable electric supply and provide greater access to economically priced power. The 38 point Electricity Crisis Resolution Action Plan mainly consists of transmission lines of different voltage levels spread all over the country. The entire transmission system expansion plan was thus revised without proper study.

The perceived energy crisis prompted the then Government to take concrete action plans to ensure reliable electricity supply in the coming years. Accordingly, GoN has unveiled plan to develop 10,000 MW in the next ten years. The current government has proposed to develop 25000 MW in the next 20 years. A regulatory framework should be in place in Nepal for the establishment of transmission companies in Nepal. One central transmission company/authority can be established to manage the whole transmission system of the country in the beginning.

As the transmission system grows, regional transmission companies can be established. The central transmission company will manage East West trunk line, cross border lines and all lines falling in the southern river basin. Regional transmission companies, one in each region are needed to manage transmission lines within the Sapta Kosi River Basin, Sapta Gandaki River Basin and Karnali-Mahakali River Basin. Transmission company and wheeling may be too early to implement right away and is best suited for 3-4 years from now.

2. Hydropower Royalty and Local Ownership of Hydropower Plants

Shyam Upadhyaya, Socio-Economist and freelancer | 18th June, 2010

Hydropower projects in Nepal pay approximately Rs.1 billion per year as royalty to the Government of Nepal. Hydropower royalty constitutes about 1% of government budget, and about 6% of the non-tax revenue of the government of Nepal.



As per the Local Self Governance Act and Regulation, the central government sends 12% of such royalty to the District Development Committee (DDC) of the district housing hydropower plants. Similarly, the central government distributes another 38% of royalty to all the districts of a development region that houses a hydropower plant. However, royalty distribution process is cumbersome and time consuming. The communities affected by the construction of hydropower projects are not getting this royalty in time. Consequently, hydropower developers have to face local protests when they try to build hydropower plants. Local communities should be given priority while spending royalty which would help to build goodwill of local people towards hydropower plants.

Nepal Government receives more than Rs.1 billion from hydropower royalty. About half the sum go to the concerned DDCs and VDCs annually. It is a significant amount of money for the local VDCs and DDCs.

3. Concept Paper on Power Development Fund

Dr. Manoj Shahi, a certified Financial Analyst
16 July, 2010



(Following the decision of IPPAN to prepare a concept paper on Power Development Fund at the request of NRB Governor, Dr. Yubaraj Khatiwada, Dr. Manoj Shahi prepared and presented a paper on the topic in IPPAN's Friday Forum).

From a brief study, it was noted that funds are available to finance infrastructural projects, but it was not being invested in the energy sector. Therefore, the Power Development Fund, named here as "Nepal Power Fund" can be established under Company Act or a Special Act. Retail investors and high net worth individuals willing to invest in such funds will be exempted from taxes and disclosure requirements. Other possible investors would be institutional investors like the Karmachari Sanchaya Kosh, Army Fund, Nepal Police Fund, Nepal APF Fund, insurance companies, corporate provident funds, multi-lateral development institutions (e.g. World Bank), registered financial institutions (Class A, B, C, D institutions), savings and co-operatives and international banks. The fund will be managed by a fund manager. The objective of the fund is "to contribute to the development of the power sector in Nepal by providing long term financing to eligible private sector independent power producing

companies'. The Fund will be invested in opportunities in the energy sector that are economically viable, will provide an adequate return on investment, will be in compliance with international and domestic standards on environmental and social impact, and will contribute to local development and poverty reduction. The energy project should have easy access to national transmission grid, should have a signed PPA, should meet all NEA requirements, should have a detailed business plan and should be insured against fire, casualty and catastrophic events.

4. Generation of 25,000 MW in 20 years: July 30, 2010

Bhoj Raj Regmi
30th July, 2010



This report is based on a previous similar report called "Ten Thousand MW in Ten Years". The present report has additional features like identification and selection of projects based on coming 5 years, 10 years, 15 years, 20 and 25 years time periods, estimated project costs for each project, classification of projects

based on installed capacity and development models, development cycles of projects, identification of issues related to hydropower including recommendations for solutions, etc.

Additional features of this report include climate change and its effects on the design, construction and implementation of projects, separate twenty year transmission line plans for the evacuation of power generated, alternative energy and clear cut road map for the implementation of projects.

The Terms of Reference of the Taskforce were mainly to prepare a concrete and implementable twenty year hydropower development, to recommend minimum requisites to meet the objectives, to recommend immediate, short term and long term measures for the government, to recommend concrete institutional policy and legal reforms needed, to recommend a framework for public private partnership and foreign investments in hydropower projects, to prepare an inventory of projects to be undertaken by the Government of Nepal, to prepare inventory of feasible projects including their project cost and implementation schedule.

Transmission line has been planned to evacuate the power for domestic consumption and surplus power for export. A 400 kV transmission line has been found to be appropriate for domestic consumption. A 400 kV, double circuit transmission line, 845 km long, and parallel to the existing east west 132 kV line has been proposed. Large projects will have its own dedicated transmission line to export power;

A 200 kV transmission line parallel to the proposed mid hill highway has been planned to evacuate power for domestic consumption and to enhance the reliability of

transmission line and to improve the quality of electric supply. DoED will create an inventory of transmission lines, after carrying out pre-feasibility studies and issue survey licenses accordingly.

5. CEDB Hydro Fund Ltd (CHF)

Vinay Bhandari, CEO, Hydro Fund Ltd.
17th September, 2010

The CEDB Hydro Fund Ltd. is an equity arm of the Clean Energy Development Bank Ltd. It is a public company established in 2009 to contribute to equity management for accelerated development of hydropower in Nepal. The hydropower deposit account holders are the automatic shareholders of the Fund.



CHF is transparent and managed professionally. Its approaches are proactive, innovative, practical and within the reach of local small investors. Risks are distributed leading to reduced risks to investors. It has the potential to raise capital from wider participation of individuals. Its strategic objectives are to be a lead promoter/ developer, to develop a project, transfer shares and release control. It evaluates projects comprehensively for its viability, sustainability, and profitability, and match projects with lead developers and investors. CHF invests in feasibility studies, environmental impact assessments, detailed engineering design, contracts, construction and commissioning.

The projects being funded at present are the Lower Khare (8.26 MW), Rukum Gadh (5 MW), Khimti-A (10 MW), Mahesh Khola (2.2 MW) and Andheri (1 MW). The recent award of Lower Solu (45 MW) to a JV company (with the involvement of Clean Energy Development Bank) was a success story of CHF. It played a key role in bringing together Nepali investors.

6. Relevance of Electric Transport in Metropolitan Kathmandu

Mr. Bijaya Man Sherchan
1st October, 2010

The uncontrolled growth of population in Kathmandu valley of 4 million (estimated by 2020) is making it difficult to cope with the required services such as water supply, solid waste management, electricity and transport. It is estimated that 400,000 vehicles currently operate in the valley. Also, the rising level of greenhouse gases like CO₂, CH₄, and N₂O contributes to global warming. The comparative O&M costs of petrol vehicles and electric vehicles of Rs.9.10 and Rs.4.90 per km respectively show that the Government of Nepal must encourage the use of electric vehicles in Nepal at the earliest possible.



Electric transportation was introduced in Nepal in 1960, with the operation of 43 km long ropeway between Kathmandu and Hetauda. The shortage of power is a major obstacle to introduce electric vehicles on a larger scale. The PPA rate should therefore be amended so that the 117 Projects requiring PPA with 1,580 MW capacities are implemented and the Hydropower Fund should be established to provide interest subsidy to hydropower developers.

7. Power Evacuation Status: Issues and Options

Mr. Ramchandra Pandey, Director, NEA
3rd December, 2010

Nepal has great hydropower potential but still an acute shortage of energy. The country only has about 698 MW of installed capacity. However, the evening peak demand, morning peak demand and day time demand are 885 MW, 550 MW and 480 MW respectively. The monsoon and winter peak demands are 740 MW and 885 MW respectively. The power produced during dry season is 180 MW.

One of the reasons for load shedding is the bottleneck of the transmission line system where capacity is not enough for inter-region power flow or to evacuate from new generation expansion.

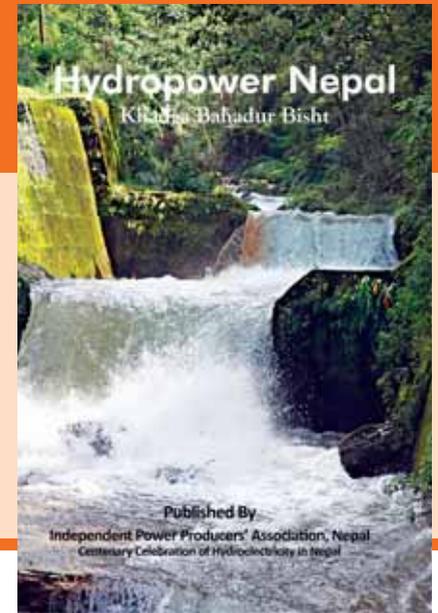
For this, injection of the private capital is a must in the transmission system development. Legislation and regulatory frameworks should be adjusted accordingly to allow private sector participation.



Launching of Hydropower Nepal

IPPAN is proud to announce the launching of Hydropower Nepal on January 5, 2011. The book contains 290 pages. It is a repository of comprehensive information on Nepal's hydropower. The writer is Mr. Khadga Bahadur Bisht, who is associated with Himal Power Limited and SN Power. The book is priced at NRs. 5000.00 for Nepali and 150 \$ for foreigners. Prospective buyers willing to purchase the book are requested to contact IPPAN .

The Hydropower Nepal is a hard cover edition, 8 inch by 11 inch, in size, illustrated with several maps, pictures and drawings.



NEWS FROM MEMBERS

Charnawati Khola Hydroelectric Project is progressing rapidly

Charnawati Khola Hydroelectric Project (Installed Capacity-3.52MW) located in Bhimeshowar Municipality, Dolakha District, Janakpur Zone, Eastern Development Region of Nepal is progressing rapidly. Power Purchase Agreement (PPA) has been signed with Nepal Electricity Authority (NEA). Financial arrangement has been successfully closed. Bank of Kathmandu is leading the consortium. Currently the project is in the construction phase. Civil and hydro-mechanical contractors are mobilized at site since August 2010. Preparatory works like access road improvement, camp construction and temporary workshop for penstock pipe fabrication have been completed. An Electro-mechanical contract has been signed with APP China. The project is expected to complete within the FY 2068/069.



Baramchi Hydropower Project has started generation

The upgradation of existing 1MW Baramchi Hydropower Project to 4.2MW has been successfully completed and the plant is up and running. The project is located in Sindhupalchowk district and has one of the highest head in Nepal with a gross head of 615 m. The generated energy is being evacuated via a new 18km long 33kV transmission line to the NEA sub-station at Lamosanghu.





IDS ENERGY PVT. LTD.

IDS Energy Private Limited is involved in various renewable energy business in Nepal and India. It also takes equity positions in companies involved in the same sector.

IDS is:

- ▶ A Developer of Hydropower Projects in Nepal and India, with a dual strategy of owning a majority stake in all small hydro plants, and owing a minority stake in all large hydro plants implemented in a joint venture partnership format with multinational infrastructure and hydropower companies.
- ▶ A Design and Engineering Consultant for hydropower and renewable energy projects in technical collaboration with one of the world's largest hydropower design and engineering companies.
- ▶ A Water-to-Wire Supplier of Electromechanical Sets for the hydropower industry.
- ▶ A Distributor of Solar Portable Lights with the mission to provide environmentally friendly and cost

effective lighting solutions to every family deprived of quality electricity in Nepal.

CURRENT ACTIVITIES

- ▶ Design & Engineering Services to various hydro projects totaling 130 MW.
- ▶ Comprehensive study on compilation of the complete 'Inventory of Rivers of Nepal'.
- ▶ The comprehensive study completed on 'Nepal's Hydraulic Resources'
- ▶ Development of 4.8 MW Khorunga Small HEP (2010).
- ▶ Development of 8 MW Lower Khorunga HEP (2011).
- ▶ Distribution of Solar Portable Lights throughout Nepal.



Sanima-Marching Ahead

Sanima Hydropower P. Ltd and its associate companies; namely Sanima Hydro and Engineering P. Ltd. and Sanima Mai Hydropower P. Ltd have a number of hydropower projects that are in different stages of development. Construction of the 15.6 MW Mai Hydropower Project located in Ilam district has started in October 2010 with the mobilization of the civil construction contractor, Himal Hydro and General Construction Ltd. The project has a 3.5 years construction period and is scheduled to start commercial operation on July 14, 2014. The 4.5 MW Mai Cascade Hydropower Project that utilizes the tailwater of Mai Project is also in the pipeline. Application for Power Purchase Agreement (PPA) has been submitted to Nepal Electricity Authority. As soon as the generation license is made available, construction works for Mai Cascade Project will be initiated. Similarly, the 415 MW Upper Tamor Hydropower Project located in Taplejung District is in the feasibility study phase. Different international and national experts and firms are engaged in the feasibility study of this Project which is expected to be completed in about a year's time. The 57 MW Middle Tamor Hydropower Project which utilizes the tailwater of Upper Tamor Hydropower Project is also currently in the feasibility stage. 27.5 MW Lower Likhu Hydropower Project located in Dolakha and Ramechhap districts is another project that has reached the final stage of the feasibility study.



If the above hydropower projects are implemented as planned, Sanima Group will be able to meet its target of reaching 500 MW of installed capacity by 2020 and establish itself as a leading group of companies in the hydropower sector of the country.

INDEPENDENT POWER PRODUCERS' ASSOCIATION, NEPAL (IPPAN)

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Name List of IPPAN Members

Corporate Members

- 1 Annapurna Renewable Energy (P) Ltd.
- 2 Balephi Hydropower Company Ltd.
- 3 Bhotekoshi Power Company Pvt. Ltd.
- 4 Butwal Power Company Ltd.
- 5 Himal Power Limited
- 6 Himalayan Hydropower (P) Ltd.
- 7 Himtal Hydropower Company Ltd.
- 8 IDS Energy Pvt. Ltd.
- 9 Khudi Hydropower Limited
- 10 Lamjung Electricity Development Company (P) Ltd.
- 11 Mai Valley Hydropower Pvt. Ltd.
- 12 Manang Trade Links Pvt. Ltd.
- 13 Molnia Power (P) Ltd.
- 14 Mukdishree Pvt. Ltd.
- 15 PAN Himalaya Energy Pvt. Ltd.
- 16 Pashupati Energy Development Company (P) Ltd.
- 17 Rairang Hydropower Development Company Pvt. Ltd.
- 18 Sanima Hydropower Company (P) Ltd.
- 19 Tundi Power Company Pvt. Ltd.
- 20 Cemat Power Dev. Co (P) Ltd.
- 21 Ru Ru Jalbidhyut Pariyojana Pvt. Ltd.
- 22 Radhi Bidyut Company Ltd.
- 23 Upper Maiwa Hydropower Pvt. Ltd.
- 24 Upper Madi Hydro Pvt. Ltd.
- 25 Super Khudi Hydropower Pvt. Ltd.
- 26 Unique Hydel Co. Pvt. Ltd.
- 27 Shikhar Hydropower Co.
- 28 Ankhu Hydropower Pvt. Ltd.
- 29 Annapurna Group Pvt. Ltd.
- 30 Grid Nepal Pvt. Ltd.
- 31 Welcome Energy Development Co. Pvt. Ltd.
- 32 Dordi Khola Jalabidhyut Company Ltd.
- 33 Nepal Hydro Developer (P) Ltd.
- 34 Himalayan Power Partner Pvt. Ltd.
- 35 Naulo Nepal Hydroelectric Pvt. Ltd.
- 36 Numbur Himalaya Hydropower Pvt. Ltd.
- 37 Global Hydropower Associate Pvt. Ltd.
- 38 NASA Hydropower Pvt. Ltd.
- 39 Baishno Devi Hydropower Co. Pvt. Ltd.
- 40 River Falls Hydropower Devt. Co. Pvt. Ltd.
- 41 Nimrung Hydropower Company Pvt. Ltd.
- 42 Nyadi Group Pvt. Ltd.
- 43 Rara Hydropower Devt. Co. Pvt. Ltd.
- 44 Sanima Mai Hydropower (P) Ltd.
- 45 Tara Energy Pvt. Ltd.
- 46 Synergy Power Devt. Pvt. Ltd.
- 47 Energy Engineering Pvt. Ltd.

Associate Members

- 1 Shangrila Energy Limited
- 2 Clean Energy Development Bank Ltd.
- 3 Klen Tech Pvt. Ltd.
- 4 SN Power
- 5 Nepal Hydro & Electric Limited
- 6 ICTC Pvt. Ltd
- 7 Himal Hydro & General Construction Ltd.
- 8 Hydro Solutions Pvt. Ltd.
- 9 Jyoti Bikash Bank Ltd.
- 10 Nabil Bank Ltd.
- 11 Himalayan General Insurance Co. Ltd.
- 12 Standard Chartered Bank Nepal Ltd.
- 13 Bank of Asia Nepal Ltd.
- 14 Sunrise Bank Ltd.
- 15 Sanima Bikas Bank Ltd.
- 16 ACE Development Bank Ltd.
- 17 Nepal Investment Bank Ltd.
- 18 Structo Nepal Pvt. Ltd.
- 19 Feedback Ventures Nepal Ltd.
- 20 Qiankang Allonward Hydro-Equipment Co. (P) Ltd.