$15b Indian Investments Possible in Hydropower: Indian Envoy

Nepal will easily receive at least US$ 15 billion worth of investment from India in the hydropower sector in the next five years, provided the country creates a conducive business environment, said Indian Ambassador to Nepal Jayant Prasad.

"There exists a huge potential for Nepal to expand trade and investment with India, particularly as it is richest country among all South Asian neighbors in terms of natural resources. I am sure Indian investment worth US$ 15 billion will come into Nepal in hydropower sector alone over the next four to five years if favorable business environment is created," said Prasad in the capital.

Prasad who was speaking at a Foreign Policy Conclave organized by Federation of Indian Chambers of Commerce and Industry (FICCI) and the Ministry of External Affairs of India also emphasized that Nepal must develop hydropower and lure more foreign investment if it is to bring down the ballooning trade deficit with the southern neighbor. (Source: Republica, Kathmandu, 3rd December, 2011)

Dozen Transmission Line Project Work Stalled due to Forest Ministry

One dozen transmission line projects under construction are stalled due to Forest Ministry. Projects in various places and at different stages of construction are fully stopped.

Projects files of 220 kV transmission line projects construction initiated by Nepal Electricity Authority (NEA) are blocked in the Forest Department and the Forest Ministry and some are blocked by the Ministry of Environment. Under construction of 132-33 kV sub-station is also hanging.

Project construction under World Bank (WB) funding such as Khimti-Dhalebar 220 kV, Hetaunda-Bharatpur 220 kV, Bharatpur-Bardghat 220kV, Kabeli-Corridor 132 kV, and 132 kV Patharaiya sub-station are now stand still. Similarly, project construction under Asian Development Bank (ADB) Dumre-Damauli-Marshyangdhi 132 kV, Butwal-Kohalpur double circuit 132 kV, 132 kV Chapali sub-station, 132 kV Matatirth Sub-station have not moved ahead due to barriers from Forest and Environment Ministries and objections from the local people, as informed by the NEA.

NEA has informed the Energy Sub-Committee of Natural Resources Committee of the Parliament that no progress is made in the construction due to Ministry of Forest. In many places, the local peoples have also strong opposition for tree felling.

Mr. Bogati, Energy Minister informed the Sub-committee that for the hydro projects under construction, the transmission lines projects construction/expansion is very important. He further added that the Energy Ministry will tackle the problem of Forest and Environment by stakeholders discussion.

For transmission line construction, the Government should keep this in priority, and it is not only the problem of Energy Ministry. Mr. Balananda Poudel, Energy Secretary, MOE said that even though the transmission line projects are in priority of the Government, required cooperation is lacking. He said that the main problem is land acquisition and compensation to effect. He further added that 10% of the compensation is the normal practice for the land under right of way; whereas the public is demanding double that figure.

Due to project not moving ahead, the WB has warned to withdraw financial support from the Hetaunda-Bharatpur project. Further, progress was hampered by no release of budget from the Finance Ministry as told by Mr. Ram Chandra Pandey, General Manager of Grid Development of the NEA. He is of the opinion that unless the land zoning is enforced for simplification of land acquisition and compensation the problem will not be solved. Local people demand electrification in the both sides of the line area, which have increased the project cost. Mr. Pandey charged that even though NRs. 10.61 billion is earmarked for four years period for the transmission line project, the Finance Ministry has not released the money. However, Joint Secretary of the Ministry of Finance Mr. Khem Raj Punyali said that money is released as per the rules. For the first quarter NRs. 1.2 billion has been released and release for the 2nd quarter is under process.

DDG Mr. Yam Bahadur Thapa of the Forest Department charged that the NEA does not coordinate with the Forest Department. For tree felling in addition to locals permission, lack of coordination of both Ministry has created the problem.

(Source: Laxman Biyogi, Nepal Samacharpatra, Kathmandu, 8th December, 2011)

Editor's Note: NEA with a record of 127 km transmission lines and two sub-station constructions made in last decade is poised to construct 3,300 km of transmission lines and 64 sub-stations in coming decade. It is a large jump compared to last decade. Further only 168 MW constructed in last 10 years; whereas, in last 14 months 1,350 MW PPA has already been done. NEA has gained trust of several funding agencies also. NEA needs support and cooperation from all sectors to fulfill the target. However, non-cooperation from the Forest agency, hampering by local people have made almost all the project stand still. For Bardghat-Hetaunda project NEA is trying to get permission from the Forest Ministry for tree felling from last three years; however the Forest Ministry sent terms/conditions for clearance only on 26th December 2011.

National Conference on Water, Food Security and Climate Change (CC) in Nepal

A two day national conference on the water, food security, and climate change in Nepal was organized in Kathmandu, Nepal on 23-24 November, 2011. It was organized by International Water Management Institute

(IWMI), CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS), Department of Irrigation (DOI), International Network on Participatory

Irrigation Management (INPIM), and Nepal Agricultural Research Council (NARC).

The Chief Guest was Ms. Binda Hada, Secretary, Ministry of Irrigation. More than 150 related professionals participated in the conference. The conference objective was to provide a level platform for participants to share experiences and lessons learned, to promote partnerships among disciplines and organizations on land and water management for food security, and to identify future directions on key issues such as water scarcity, food security, and climate change in Nepal.

About 22 papers were presented in the conference. Details about the findings of this Seminar are discussed in page 93 of this journal. Hyro Nepal Journal has been commissioned to publish a selected papers conference as a special issue of the journal.

'Mountain Day' at COP17 Calls for Urgent Actions to Save the World's Mountain Ecosystems

Durban, South Africa: Mountain ecosystems are global resources and need global support to offer global solutions. This was the central thread of the first Mountain Day event, organized by the Kathmandu-based International Centre for Integrated Mountain Development (ICIMOD) in close collaboration with global and regional partners including GIZ, FAO, the Mountain Partnership Secretariat, the World Bank, UNEP, and others on the sideline of UNFCCC COP17 in Durban, South Africa on Sunday, 4 December 2011.

Attended by more than 100 participants from all the mountains of the globe – among them policy makers, COP17 negotiators – the event highlighted the critical role of mountain ecosystems in climate adaptation and sustainable development – notably as the 'water towers' of the world and global reservoirs for biodiversity. The event also highlighted the vulnerability of mountains and of those who depend on them, underlining that the value of the ecosystem goods and services derived from mountains is under-recognised, under-valued and poorly compensated. Two high-level panels called on COP17 delegates and global development partners to protect vital mountain ecosystems from the threats presented by climate change, to support adaptation programmes in mountains for improved livelihoods and sustainability, and to create incentives to enhance the benefits mountain people derive from conserving their ecosystems.

Pema Gyamtsho, Minister for Agriculture and Forests of Bhutan, related that mountains provide water, food, and medicine as well as spiritual sustenance, and underscored the connections between mountain ecosystems and other ecosystems. He stressed the need for upstream and downstream collaboration and for inclusion of mountains on the agenda of UNFCCC and Rio+20. René Castro Salazar, Minister of Environment, Energy and Telecommunication, Costa Rica, highlighted Costa Rica's activities to address the effects of climate change in mountainous regions. He stressed the need for South-South cooperation, giving the example of Costa Rica's partnership with Bhutan and Benin. Hem Raj Tater, Minister of Environment, Nepal addressed the need to give higher priority to adaptation and sustainable development in mountainous areas.

The day's highlight was the keynote speech by RK Pachauri, Chair of the Intergovernmental Panel on Climate Change (IPCC), who characterized Mountain Day as "a remarkable chance to come up with a plan of action to influence the outcome of Rio+20", noting that mountains have experienced above average warming in the twentieth century and that this is likely to continue. He pointed out that impacts on glacier melt are projected to increase the frequency of natural disasters, and that perennial rivers could become seasonal rivers in the near future. Disasters, scarcity of natural resources, and migration related to these and other factors, can be expected to lead to conflicts. Dr Pachauri expressed his frustration that UNFCCC was discussing politics and not the scientific reality of catastrophic climate change. He urged mountain countries to organize themselves internationally to

Photo: Ocean Driven Media

Dr RK Pachauri, Chair of the Intergovernmental Panel on Climate Change (IPCC), addressing Mountain Day participants

share resources and unite their political voice, citing the success of the Alliance of Small Island States in raising awareness on islands.

"Mountain issues are not local but have global implications", said David Molden, Director General of ICIMOD. "There is a need to view mountains not only as a challenge, but as a source of solutions for food, energy, water, and biodiversity security", he added. Vera Scholz, Head of the Climate Change Department, GIZ, said that ecosystem-based adaptation might be an adequate solution for mountains. "We need to learn how to make livelihoods and value chains climate proof", she said.

Presentations of collaborative work carried out by ICIMOD, UNEP, the Mountain Partnership Secretariat, and the World Bank in the Hindu Kush Himalayas, South America, Central Asia, and Africa highlighted the importance of strategic partnership-based activities to raise awareness about climate change issues in the mountains.

Mountain Day presented a draft 'Call for Action' to communicate the messages of mountain regions to a broader audience. "Mountain Day confirmed the need for the global mountain community to come together to give the message of the mountains," Molden summed up, "but there is a need to communicate better with people downstream. This event served as a catalyzing moment to bring people together to communicate concerns and solutions to the world."

Opening ceremony of Turbine Testing Lab at Kathmandu University

Turbine Testing Lab (TTL) at Kathmandu University was inaugurated on 10th November 2011 jointly by Norwegian Ambassador H.E. Mr. Alf Arne Ramslien and Vice Chancellor of Kathmandu University Prof. Suresh Raj Sharma. TTL is constructed under a technical cooperation with Norwegian University for Science and Technology (NTNU) with NORAD as a major contributor. Construction of TTL was started in January 2010 and was completed on October 2011. The total cost of the construction was 97 million NRs. (US $ 1.212 million). 60% of cost was contributed by NORAD and remaining 40% was contributed by KU and local hydropower developers equally. Turbine Testing Laboratory at KU which has 30 meter open head and 150 meter closed head is capable of testing different range prototypes up to 300kW and conduct model tests for larger sizes.

Vice Chancellor of Kathmandu University Prof. Suresh Raj Sharma welcomes Norwegian Ambassador to Nepal Mr. Alf Arne Ramslien for the Inauguration Ceremony of Turbine Testing Lab

Climate Change Book Launched

On December 29, 2011, Jalshrot Vikas Sanstha (JVS) and Global Water Partnership Nepal (GWP Nepal) launched a Book Jalbayu Paribartan Ke, Kin ra Kasari? (Climate Change, What, Why and How?) written by Mr. Dabindra Dahal and Pradeep Bhattarai. The Chief Guest was Mr. Laxman Ghimire, a CA Member (MP) launched

the book. Mr. Ghimire is himself an Engineer and knows very well about the consequences of the climate changes. He assured that as a CA member, he will take the case in the appropriate place and will lobly strongly. Mr. Ghimire explained that there have been wide spread destruction due to unsustainable quarry of sand, gravel/stones, and hapazard construction of roads by bulldozer. The speakers stressed and cautioned for depletion of available water resources, change rainfall patterns, disappearance of winter showers etc. The Book is in Nepali Language and is priced NRs. 150.00.

Twenty-eight Hydel Projects ask Government to Declare them Sick

As many as 28 hydropower projects promoted by the private sector have knocked on the government doors seeking relief measures, saying that they turned sick due to high bank interest rates. They have formally asked the Ministry of Energy formally to declare them sick and provide necessary relief. Independent Power Producers (IPPs) have been saying that they cannot move ahead with their projects until the interest rate comes down or some other relief measures are taken by the government.

The IPPs have demanded relief in interest rate, facility of refinancing or purchase of the project by the Nepal Electricity Authority. They have also demanded hike in power purchase agreement (PPA) rate. The government had hiked PPA rate by 20% for new projects, but the

rate has not been increased for projects that are under construction and completed.
(Source: The Kathmandu Post, 18th October, 2011)

Climate Models Show Inconsistent Results for Water Availability in Nepal

Uncertainty over the effects of climate change will be a huge challenge to national agricultural water management

New research comparing outputs from climate and hydrological models has shown some worrying inconsistencies on the predicted availability of water in Nepal. Outputs from different computer models, known as the global and regional circulation models, showed wildly different outcomes for water flow under different climate change projections. The results, presented in the **National Conference on Water, Food Security and Climate Change** which eas held in Lalitpur, are sure to add to the confusion among water policy makers who are desperate for reliable information about the likely consequences of climate change on water supplies and agriculture in Nepal.

"The uncertainty of climate change predictions is a major issue," says Luna Bharati head of the Kathmandu office of the International Water Management Institute (IWMI) and a member of the research team. "Any adaptation strategy that the government plans will have to take this uncertainty into account. We are already experiencing increasingly unpredictable climate related events, such as floods and droughts. We urgently need to assess the vulnerability of communities and target adaptation measures to those most likely to be affected."

Bharati says that climate change will heighten the need for investment in conventional water management measures like storage, basin transfers, improved agriculture water management technologies which can all be viewed as adaptation options. Introducing new measures, such as crop insurance schemes which are based on climate data may also be useful. But implementing these new strategies remains a challenge. In another piece of new research to be presented at the conference, IWMI scientists identified a lack of training as a major problem in the development of new water management systems.

"Most donors are failing to devote sufficient resources to building capacity in communities and public organizations," says IWMI's Floriane Clement who led the research team in Nepal. "Planners are focusing on numbers and outcomes and failing to look at the quality of their interventions to improve water resource management."

This research was based on a series of interviews conducted with around 25 government officials, donors, NGOs and consultants in Kathmandu. This was complemented by findings from ethnographic fieldwork in four case study sites in the western region of Nepal (Bajhang and Mugu Districts), where water management projects had been implemented by a major donor.

"Most donors have developed sophisticated models for development and irrigation projects on the assumption that improved institutional performance will solve past shortcomings, says Clement. "Yet there is always a large gap between the models and their implementation on the ground. We suggest that good models need to be guided by key principles such as quality engagement with men and women, equity, inclusiveness, sustainability, integration of local knowledge, accountability to communities. More funds, time and human capacity should be devolved to achieve these principles on the ground. The monitoring and evaluation of development and irrigation projects need to pay more attention to the quality of processes and achievements of these principles rather than to outputs."

The Kathmandu conference is timely as it takes place just before the UN Climate Change summit in Durban, South Africa when a mechanism to distribute money to poorer countries to help them adapt to climate change may be agreed.

"More research is vital if Nepal is to make the most of investments in water resource management," said Luna Bharati head of IWMI's Kathmandu office. "The impacts of climate change will be felt most acutely in the availability and access of water resources, and that will affect agriculture as well as food security. This conference is designed to help Nepali researchers and policy makers share experiences and find innovative solutions to problems that have plagued the water management sector for decades. Only by adopting a new collaborative approach can we hope to successfully manage water and guarantee food security in an era of climate change."

"It is the responsibility of professionals working in the field of water to communicate to stakeholders from decision makers in the government to the end users about adaptation measures to cope with the effects of climate change on water resources" said Suman Sijapati, President of INPIM/ Nepal, one of the co-organizers of conference.

The National Conference on Water, Food Security and Climate Change in Nepal is took place 23-24 November. It was organized by the International Water Management Institute (IWMI) and the CGIAR Research Program on Climate Change Agriculture, and Food Security in partnership with the Department of Irrigation, Government of Nepal, the International Network on Participatory Irrigation Management and the Nepal Agricultural Research Council.

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The International Water Management Institute (IWMI) *is a nonprofit, scientific research organization focusing on the sustainable use of water and land resources in agriculture, to benefit poor people in developing countries. IWMI's mission is "Improving the management of water and land resources for food, livelihoods and the environment." IWMI has its headquarters in Sri Lanka and regional offices in Africa and Asia. The Institute works in partnership with developing countries, international and national research institutes, universities and other organizations*

to develop tools and technologies that contribute to poverty reduction as well as food and livelihood security. Website: www.iwmi.org

***The Consultative Group on International Agricultural Research (CGIAR)** is a global partnership that unites organizations engaged in research for sustainable development with the funders of this work. The partnership's mission is to reduce poverty and hunger, improve human health and nutrition, and enhance ecosystem resilience in developing countries through high-quality science that achieves global impact. The funders include developing and industrialized country governments, foundations, and international and regional organizations. The work they support is carried out by international research centers in close collaboration with hundreds of partner organizations, including national and regional research institutes, civil society organizations and the private sector. The CGIAR generates international public goods that are available to all. Website: www.cgiar.org*

Nepal Micro Hydropower Association (NMHA) Organises a Workshop

On the occasion of its AGM of NMHA, it organized a workshop on Loadshedding and Role of Micro Hydropower in Nepal. The Chief Guest was Mr. Hem Raj Tater, Minister of Environment and the program was run by Mr. Naryan Shrestha famed Master of Ceremony of BBC Common Programme. Experts discussed on the various options available to reduce the electricity shortage in Nepal. Many experts suggested that Micro hydro needs to be given increased importance by the Govt. which can provide electricity in the remote areas. It was also discussed that solar energy cost only Rs. 14/- per unit and it should be utilised to reduce the load shedding. In the winter season 50% of the demand is curtailed by load shedding – shortage of 520MW peak and about 5 million units of electricity shortage per day. The conclusion of the Workshop was that various available options should not competing with each other but these are supplementary as told by Mr. Surya Bhakta Mathema, Chairman of the NMHA.

Himalayan Universities to Work Together on Knowledge Generation for Inclusive Development (Kathmandu, 25 January, 2012)

Universities and research institutions working in the mountain and hilly regions of Bangladesh, China, India, Nepal, and Pakistan have agreed to work together as a network for mountain-focused teaching, research, and outreach in the Hindu Kush–Himalayan (HKH) region. The collaboration was cemented at a conference of more than two dozen university vice chancellors, deans, professors, and researchers held at the headquarters of the International Centre for Integrated Mountain Development (ICIMOD) on 23 and 24 January 2012. The conference was convened by the ICIMOD-based Himalayan University Consortium (HUC), with financial support from the Canada-based International Development Research Centre (IDRC). In the opening address, Dr David Molden, Director General of ICIMOD, spoke of ICIMOD's readiness, as a regional knowledge and learning organisation, to work with the universities to generate new knowledge and technical solutions to address challenges of climate change, poverty, and environmental degradation in the region. Dr Veena Ravichandran of IDRC highlighted her organisation's role in supporting research in developing countries to promote inclusive growth and development. Dr Madhav Karki, ICIMOD Deputy Director General and the team leader of the HUC programme, in his keynote speech emphasised that knowledge is one of the most important development resources, creating awareness, opportunities, and skills. Noting that knowledge is increasingly linked with economic competitiveness, he expressed concern about the persisting gap between knowledge generation and its application in the HKH region. "Academia needs to adjust to both the region's growing knowledge economy and its increasing socioeconomic disparity", he said. The participating universities developed an agenda for working together on research and knowledge generation to support, among others, sustainable livelihoods of the poor and marginalised people of the Hindu Kush–Himalayan countries. The consortium's new programme will address skills development in social innovation, enterprise development, assessment of the role of the informal sector, and developing value chains of high value products and services that are based on the rich ecosystem services widely available in the hills and mountains of Himalayan countries. The group stressed the role of innovative and collaborative research and the need to develop communication strategies to promote the uptake of research results in policy and practice. ICIMOD will play a pivotal role in coordinating and steering the programme.

DR Congo, South Africa Sign Pact to Implement 40,000-MW Grand Inga

Lubumbashi, Democratic Republic of Congo 16th November,2011 (PennWell)- The energy ministers of the Democratic Republic of Congo (DRC) and South Africa have signed a memorandum of understanding to start development of the first phase of the proposed 40,000 MW Grand Inga hydroelectric project on the DRC's Congo River. South Africa President Jacob Zuma joined DRC President Joseph Kabila in DRC for the November 12 signing ceremony intended to spur joint action on the project.

(Source: www.hydroworld.com)