

Nepal Engineers' Association Japan Chapter (NEA-JC) Seminar
“Infrastructure Development and Environmental Conservation in Nepal”

The University of Tokyo Komaba Campus, 19 July 2009, Tokyo (map attached)

Program

Welcome and Opening

Anchor: Dr. Jhabindra Ghimire

10:00 – 10:10	Welcome and program layout by NEA-JC President Dr. Ved Prasad Kafle
10:10 – 10:20	Remarks by Non-Resident Nepalese Association Japan President Mr. Bhavan Bhatta
10:20 – 10:25	Remarks by Nepalese Student Association, Japan (NESAJ) President Mr. Rajendra Parajuli
10:25 – 10:35	Remarks by Prof. Fumihiko Nakamura, Japan Society of Civil Engineers
10:35 – 10:50	Inaugural address by chief guest Ambassador of Nepal to Japan H.E. Dr. Ganesh Yonjan
10:50 – 10:55	Vote of thanks by NEA-JC Secretary/Program Coordinator Dr. Bhoj Raj Pantha

10:55 – 11:10 Break

Session I

Chair: Dr. Ved Prasad Kafle

11:10 – 11:40	Speaker: <i>Dr. Surya Raj Acharya</i> Title: Transport Development and Role of Railway in Nepal : Prospects and Challenges
11:40 – 11:50	Q&A
11:50 – 12:20	Speaker: <i>Dr. Shobhakar Dhakal</i> Title: An Assessment of Nepal's Carbon Mitigation Potentials from Key Sectors
12:20 – 12:30	Q&A

12:30 – 14:00 Lunch Break

Session II

Chair: Dr. Akhilesh K Karna

14:00 – 14:30	Speaker: <i>Dr. Bhuwneshwar Prasad Sah</i> Title: Transportation Planning and Decision Support System using Geographic Information System for Mountainous Country like Nepal
14:30 – 14:40	Q&A
14:40 – 15:10	Speaker: <i>Dr. Rabindra Osti</i> Title: How Serious are the Glacial Lake Outburst Floods to Mountain Societies?
15:10 – 15:20	Q&A
15:20 – 15:40	Speaker: <i>Er. Vishnu Prasad Pandey</i> Title: Groundwater Development and Sustainability in Kathmandu Valley, Nepal
15:40 – 15:50	Q&A

15:50 – 16:00 Break

16:00 – 17:00 Panel Discussion

Theme: **Emerging issues on the seminar theme raised during presentation sessions**

Moderator: *Mr. Madan Bandhu Regmi*, Economic Affair Officer, Transport Division, United Nations – ESCAP, Bangkok, Thailand

Panelists: Speakers of presentation sessions and experts from audience

Presentation summaries and speakers' profiles

Title: Transport Development and Role of Railway in Nepal: Prospects and Challenges

Speaker: Surya Raj Acharya, Ph.D.

Summary: In the context of recent policy emphasis for railway development in Nepal, this presentation starts with broad overviews on Nepal's transport sector and international experiences on railways to assess relevance of railway to Nepal. Finally, specific policy strategies for railway development in Nepal are recommended.

Speaker's profile: Dr. Surya Raj Acharya, currently a Senior Research Fellow at the Institute for Transport Policy Studies (ITPS) Tokyo, has a PhD from the University of Tokyo. He has over 15 years of professional experience, which includes his working for Nepal's Civil Service, IUCN-The World Conservation Union, Nepal, United Nations -ESCAP Bangkok, and the University of Tokyo. His research interests lie primarily in the field of infrastructure policies, in particular, transport and regional development, urban transport, pricing and regulation of transport services, and public-private partnership. In the past 10 years, he has extensively researched on, among others, practical policy issues related to transport development in the developing countries of Asia. He is contributing to several high-level policy fora on a regular basis. Dr. Acharya has several scholarly publications to his credit. He is also teaching a course in the Graduate School of Civil Engineering of the University of Tokyo as a Visiting Faculty. He has been working for ITPS Tokyo since 2001.

Title: An assessment of Nepal's Carbon Mitigation Potentials from Key Sectors

Speaker: Shobhakar Dhakal, Ph.D.

Summary: For mitigating global climatic change, mitigation of the carbon dioxide emissions is essential. International carbon market has flourished in last one decade to contain carbon emissions globally such as Clean Development Mechanism (CDM) of the Kyoto Protocol of United Nations Framework Convention on Climate Change, voluntary carbon markets, Climate Exchanges, several cap-and-trade systems, and EU Emissions Trading System. In this context, this talk provides the quantitative assessment of the potential of various sectors of Nepal to mitigate carbon emissions and the accompanying opportunities and bottlenecks of Nepal to tap into the global carbon market such as CDM.

Speaker's profile: Dr. Shobhakar Dhakal is one of the two executive directors of the Global Carbon Project, an international scientific program hosted by CSIRO Canberra (Australia) and NIES Tsukuba (Japan). He also leads the Project's flagship activity titled Urban and Regional Carbon management in addition to the overall management of the project. Dr. Dhakal is also a visiting Associate Professor of the Graduate School of Environmental Studies of Nagoya University Japan. He was co-author and leader of the China analyses for the Cities Chapter of the World Energy Outlook 2008 published by International Energy Agency. He is also a lead author of Global Energy Assessment, International Panel for Climate Change and Cities Assessment, and China Council Task force on Urban Development and Energy Efficiency. His publications include several journal articles, book chapters, edited books, opinions and pieces on professional magazines. He has been guest editor of special issues in two journals, is a member of editorial advisory board of International Energy Journal and a regular reviewer of major journals in the field of Energy Policy, Climate Policy and Sustainability..

Title: Transportation Planning and Decision Support System using Geographic Information System for Mountainous Country like Nepal

Speaker: Bhuwadeshwar Prasad Sah, Ph.D., PASCO Corporation, Tokyo

Summary: Being a landlocked mountainous country, Nepal is facing uphill task to provide modern mode of transportation for all citizens. There are still several settlements where mode of mobility is very much traditional, specifically in rural and remote areas.

Transportation infrastructure needs considerable amount of investment, which is mostly scarce in countries like ours. Furthermore, most of the development projects need to be evaluated; in the view point of economist; in economic terms, such as cost and benefit, demand, recovery time of the investment, etc.; which results in concentration of transportation related projects within/between populated settlements and cities areas.

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Another aspect of the infrastructure development planning; in the view point of the planner and politicians; is not only for economic viability, but also argued for factors like social justice, regional balance and long term strategic decisions.

Finally, the development projects also need to be evaluated for its feasibility; in the view point of engineers; while considering the factors landscape/terrain, land use, soil and geology, adverse environmental impacts and others.

Above arguments shows that the transportation planning is a complex issue and should be dealt accordingly. It is desirable to make comprehensive analysis by incorporating all or maximum number of the variables mentioned earlier. Furthermore, the issue is spatial, geophysical as well as geopolitical. Thus, Geographic Information System (GIS) is one of the good options to model the issue. It can be done at the very early stage of project formulation; even before pre-feasibility survey; using secondary source of data and as a desk work. In this presentation, GIS base tailor made tool for Transportation Planning and Decision Support System (DSS) will be presented and discussed. The tool can be appropriately used by the institute like Ministry of Physical Planning and Works and other similar institute. It will be demonstrated that GIS based DSS is not only an effective tool for facilitating decision making in planning, but also educating planner, decision maker and general public.

Speaker's profile: Bhuwadeshwar Prasad Sah has obtained his Ph. D. in Civil Engineering from The University of Tokyo during September 2000. Since then he has been working with PASCO Corporation, Tokyo Japan, initially as Researcher at GIS Institute (until 2005) and then as Senior Consultant (up to date) at International Division. Dr. Sah has working/consultancy experiences in several countries around the globe. Dr. Sah can be contacted at telephone number +81-3-6412-2888 and e-mail: bp_sah@pasco.co.jp. To know about his organization, please visit www.pasco.co.jp.

Title: How Serious are the Glacial Lake Outburst Floods to Mountain Societies?

Speaker: Rabindra Osti, Ph.D.

Summary: Glaciers around the globe are rapidly melting as a consequence of global warming. In high mountains, melting glaciers contribute to the development of glacial lakes, which may burst due to a variety of reasons. The image of GLOFs in the general public is terrifying, and GLOF issues have recently been highlighted in a timeline describing the increasing severity of climate change. However, the processes that lead to GLOFs and their potential threat are still not thoroughly understood, perhaps due to a lack of data and difficulties in investigation due to the difficult terrain and remoteness of the source areas. Indeed, there are very few scientific reports on GLOFs. Available discussions are primarily based on historical accounts of past events, satellite observations, and early warning and control measures; however, little attention has been given to the hydrodynamic characteristics and continuum mechanics of GLOFs, which is fundamental to evaluate the destructive nature of any GLOF. Aiming to fill the knowledge gap and to propose best practicable tools and techniques for the assessment, prediction and control of GLOFs, detail study that comprise field surveys, numerical modelling, remote sensing etc. was conducted. GLOF examples from Mt. Everest region in Nepal are discussed.

Speaker's profile: Dr. Rabindra Osti is a senior researcher at the International Centre for Water Hazard and Risk Management under the auspices from UNESCO. His expertise lies on water related disaster risk management. Geographically, his experiences range from high mountains to low laying sea coasts covering issues of corresponding natural water hazards. He has written many SCI papers, which are very diverse in the sense that they cover very local such as indigenous knowledge and community based approach to highly sophisticated numerical modeling of hazardous processes.

Dr. Osti is also an Adjunct Associate Professor and currently teaching in ICHARM-National Graduate Institute for Policy Studies (GRIPS) joint post-graduate programme. Besides, he is teaching in UNESCO-IHE, Delft as a part of ICHARM-IHE MoU and involving in several international activities together with WMO, UNESCO, ADB and many others.

Currently he is also responsible for ADB-ICHARM collaborative projects in several Asian countries in the capacity of project coordinator. He has also been assisting many Asian Governments in building their capacity on disaster risk management.

Title: Groundwater Development and Sustainability in Kathmandu Valley, Nepal

Speaker: Vishnu Prasad Pandey

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Summary: Groundwater is the world's most extracted raw material. Advances in well drilling and pump technology, improved hydro-geological knowledge, and availability of relatively cheaper energy are proven as boon for the massive development of groundwater in the developing world from 1970s. During the same period, groundwater extraction from the Kathmandu Valley aquifers was started. However, it took momentum only after Nepal Water Supply Corporation introduced groundwater in their water supply system during mid-eighties. After then, the valley's groundwater resources are always in stress due to unsustainable extraction and inadequate protection of recharge areas. This has led to adverse effects like excessive decline in groundwater level and well yield, land subsidence etc. Nevertheless, groundwater often remained as 'neglected resource' with limited funding for the improvement of resource understanding, management and protection. As resource extraction is already exceeding recharge, there is growing concern for sustainable utilization of groundwater resources in the view of inter-generational equity. Many factors are related to achieving sustainability in use of groundwater resources. For the purpose of this presentation, following aspects - groundwater monitoring, knowledge generation and dissemination, groundwater management plans/programmes, stakeholders' participation, and institutional responsibility to ensure the effective resource management - are discussed in relation to the Kathmandu valley aquifer. These aspects are termed as 'infrastructures for sustainability' in groundwater development.

Speaker's profile: With Diploma and Bachelor in Civil Engineering (from IOE, Pulchowk campus, Tribhuvan University, Nepal in 1999 and 2004), Master in Water Engineering and Management (from AIT, Thailand in 2007); Mr. Pandey is pursuing PhD in Water Resources Management at University of Yamanashi, Japan. He worked as a Civil Engineer in Rural Reconstruction Nepal (RRN) for a development project for few months before joining AIT; and as a Research Associate in AIT before joining PhD. His is currently working on modeling of groundwater resources in the Kathmandu Valley aquifer to assess the impact of climate and land use change on groundwater resources.

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Program venue:

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Please visit http://www.iis.u-tokyo.ac.jp/access_e/access_e.html to get more details about the access to the venue.

