

**Draft Proposal to Establish
Lumbini Center for Sustainability**
July 6th, 2014
(Full version exists.)

EXECUTIVE SUMMARY

This concept paper proposes to establish a center of excellence --*Lumbini Center for Sustainability (LCS)*-- as a knowledge platform with the aim to promote an informed policy debate and provide pragmatic policy advice or dossiers for enhancing human well-being and climate resiliency of the central Himalayan community. The center will embody global and regional efforts of individuals, institutions, and innovations and aims to spread the message of universal peace propounded by Lord Buddha as foundation for achieving development in harmony with nature. Keeping sustainable development and human welfare at its core, it proposes to combine methods of natural sciences, social sciences, and humanities disciplines as integrative threads for exploring connected human-ecological system (CHES) to be analyzed and understood at spatial, temporal, and organizational scales. The concept of community resilience and well-being is considered holistically to include various key elements of sustainable development such as the food-energy-water nexus, natural disasters, environmental rehabilitation, bio-diversity conservation, ecosystem services, community health, resiliency and adaptation capacity building, indigenous knowledge, culture and values. To that end, the remarkable variability in connected human-ecological systems (CHES) along the river corridors of Nepal's Himalayan range, linking the Tibetan plateau in the north and the Indian plain in the south, provides the ideal conditions to investigate causes and consequences of climatic changes in one of most vulnerable regions in the world.

The aim and objectives of the LCS are to leverage expertise and passion of a network of local, regional and global collaborators to advance research, education, and outreach in the areas of climate change risk, resilience, adaptation, and sustainable development (SD). To accomplish this, the center plans to build state-of-art research facility and human institutional capacity within the confines of the Himalayan river basin --close to the sources of climate vulnerability and impacts. Secondly, the LCS will help develop creative curriculum designs for related degree programs for its host institution and other local academic institutional partners. Thirdly, this center will help build local intellectual capacity for the local scholars and academic institutions. Fourthly, given the common threat caused by the climate change across the Himalayan range, the center will help promote trans-boundary collaborations across India, Nepal, and China, while welcoming others from around the world to join hands in the pursuit of new knowledge-based local and regional solutions to global problems. Fifthly, while maintaining the utmost scientific rigorosity in its research methods and analysis, the LCS hopes to provide public policy platforms that are creative, innovative, as well as practical and locally viable. It hopes to do so by organizing neutral knowledge forums and platforms, and developing virtual knowledge sharing and dissemination work space.

Finally, we believe that the world renowned heritage site of Lumbini, the birthplace of Buddha, is an ideal place to attract regional and international interests and collaboration. The name *Lumbini Center for Sustainability* and the location of Lumbini can serve as a good platform to

bring together scientists, Dharma teachers, anthropologists, economists, and development researchers to discuss the impacts of climate change and formulate tailored strategies, options and action programs. In collaboration with local partner *Lumbini Buddhist University*, for example, we envision being able to offer regular teaching programs at the LCS to train local leaders and development professionals in the areas of climate change impacts, adaptation strategies, and SD in the context of creating a better understanding between science, knowledge and human well-being.

ADDENDUM

I. Team of Collaborators

At this stage, the core research team includes faculty members and researchers from the US, Nepal, India, and China. There are many more who have expressed interest to support and be a part of this initiative. This support base will be evolving over time.

Dr. Alok Bohara is a Professor of economics and he is the founding director of the Nepal Study Center (NSC) at the University of New Mexico. His main expertise is quantitative methods and behavioral analysis, modeling and the state of the art data analysis with an interdisciplinary focus (development, environment, and health). His current research interest includes climate change variability, risk perception and adaptation, technology and its impact on health and well-being, quasi and randomized experiments, and gender inequality.

Dr. Joseph Galewsky is an Associate Professor in the Department of Earth and Planetary Sciences at UNM. His research is focused on the atmospheric branch of Earth's water cycle and its links and feedbacks with the Earth's surface.

Dr. Mark Stone is an Assistant Professor of water resources engineering within UNM's civil engineering department. His research is focused in the areas of ecohydrology and ecohydraulics including investigations of the impacts of river engineering and floodplain development on ecosystem services and resilience.

Dr. Siddhartha Bajracharya is a senior environmental research scientist at the National Trust for Nature Conservation (NTNC), who has extensive experience working along the Gandaki corridor, especially the Annapurna Conservation Area Project, which covers the upper Gandaki corridor.

Dr. Madhav Karki, formerly the Deputy Director General (DDG), Programs and Knowledge Management (2005-2012) of the International Centre for Integrated Mountain Development (ICIMOD, Kathmandu (www.icimod.org) & Senior Programme Officer in the IDRC, Canada's South Asia regional office (www.idrc.ca), is a senior Natural Resources Management and Climate Change Specialist and serves as a Research and Policy Advisor to various international and national organizations. Besides being the South Asia Regional Chair of Commission on Ecosystem Management (CEM) of IUCN, he is the Global Task Force

Member of the *Indigenous and Local Knowledge Systems (ILKS)* Task Force and also an Expert Group Member of the *Policy Support and Guidance Group* of the International Platform on Biodiversity and Ecosystem Services (IPBES, an UN agency). He is an Expert Member of the IPoA Monitoring and Oversight Committee of the Govt. of Nepal whose role is to implement Nepal's vision of graduating from LDC to Developing Country status in 10 years (2013-2022).

Dr. Hari Krishna Shrestha is a Professor at Nepal Engineering College, Kathmandu. He has extensive research experience in the research related to hydrological fluctuation and its impact on livelihood and estimation of hydrological parameters associated with infrastructure design. He has also served as an expert on hydrology and water resources and has done extensive international collaborative work.

Dr. Rijan Bhakta Kayastha, D. Sc. (Associate Professor, Coordinator: Himalayan Cryosphere, Climate and Disaster Research Center (HiCCDRC), Department of Environmental Science and Engineering, Kathmandu University). Currently he is involved in research conducting hydro-meteorological and glaciological studies of few glacierized river basins in Langtang and Hidden Valleys in Nepal through the Cryosphere Monitoring Project (CMP), Contribution to High Asia Runoff from Ice and Snow (CHARIS) and PEER Science Project administered by NSF. The main goals of these projects are to know the current status of hydrological regime and impacts of climate change on water resources.

Dr. A L Ramanathan, Professor of Env. Geology, Hydro geochemistry, Biogeochemistry and Glacier laboratory, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India.

Dr. Jonathon Wright is an Associate Professor in the Center for Earth System Science at Tsinghua University, Beijing. His research focuses on the distribution and movement of water and energy within the Earth's climate system.

Institutional Support

Pratiman-Neema-Mamorial Health Institute, Bhairahawa, Lumbini, Nepal (host institution)
Lumbini Buddhist University, Lumbini (local collaborator)
Institute of Agriculture and Animal Sciences, Bhairahawa, Lumbini, Nepal (local collaborator)
Lumbini Engineering College, near Bhairahawa, Lumbini, Nepal (local collaborator)
Nepal Study Center, University of New Mexico, a research center focused on South Asia.
<http://nepalstudycenter.unm.edu>
University of New Mexico, USA
Kathmandu University, Kathmandu, Nepal
Nepal Engineering College, Kathmandu Nepal
National Trust Nature Conservation (NTNC), Kathmandu Nepal
Note: This logical framework follows the DFID's guideline.