

Curriculum-vitae

**Aseem Raj Sharma, M.Sc., M.Sc, & B.Sc.**

**PhD ( Ongoing)**

Northern Hydrometeorology Group (NHG) < <http://web.unbc.ca/~asharma/>>

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**Area of Career Interest:**

Hydro-climatology, Climate science, Extreme Weather Events, Water Resources and Hydrology, hydro-climatic variability, Climate Change impacts on Water Resources etc.

I am interested in action-based scientific research that benefits both researchers and the communities. I have keen interest to identify new, emerging issues and solutions in interdisciplinary ways and designing research for sustainable earth systems around the world, especially in the field of climate change processes and impacts on Precipitation, River runoff, and water resources.

**Skills summary:**

- Broad understanding of technical aspects of climate science, hydro-climatology climate change and its impacts.
- Excellent ability in spatial and point based hydro-climatological data collection, handling and analysis.
- Outstanding skills in computer programs. Data analysis skills in **R**, **Python**, and **ArcGIS** and excellent knowledge of other research support tools.
- Excellent communication, presentation, and publication skills.
- A good team player, out-going, self-motivated, enthusiastic, and a quick learner.
- Very ardent to work, professional, ethical, and hardworking.

**Academic Qualifications:**

**PhD Student in Natural Resources and Environmental Studies (NRES)[Environmental Science]** (Ongoing since 2015).

**University of Northern British Columbia (UNBC), BC, Canada**

**Master's in Environmental Science (Hydro-climatology)** (2014).

**University of Northern British Columbia (UNBC), BC, Canada**

Passed with Distinction [A]

Research topic: Trends and elevational dependence of the hydro-climatology of the Cariboo Mountains, British Columbia.

Major activities:

- Hydro-climatic data collection and spatial and temporal analysis for the Cariboo Mountains

- Identify the climate change trends, interannual variability of climatic parameters and elevational dependence of changes over the Cariboo Mountains
- Integrate these changes and impacts of such change with the local ecology and hydrology

**Master's in Environmental Sciences (2007)**

**Tribhuvan University, Kirtipur, Kathmandu, Nepal.**

Major: Climate change and water resources

Passed with Distinction [88.00%, 3/47 position]

Thesis topic: Climate change and impacts on communities in the Khudi watershed, Western Nepal.

**Bachelor of Sciences (2005)**

**Tri-Chandra Multiple College, Tribhuvan University, Kathmandu**

Major: Environmental Science

Passed with First Division [1/103 position; Batch Topper]

**Awards/Scholarships**

**BE Real State Foundation Funding for PhD (2016)**

CAD \$10,000 to support PhD study for a year.

**UNBC Research Grant for Students (2015)**

CAD \$10,000 to support PhD study for a year.

**UNBC Travel Award (2015)**

CAD \$1000 travel grants to present and participate in the American Geophysical Union Fall Meeting, San Francisco, CA, United States.

**UNBC PhD Scholarship (2015)**

CAD \$4479.9 annual for two years (Possible extension for additional two years) as a PhD tuition fee waive.

**Research Fellowship (September, 2014 – December, 2014)**

Fellowship to support my master's study in UNBC worth CAD \$2800 for four months.

**UNBC Travel Award (2014)**

CAD \$1000 travel grants to present and participate in a Conference in the University of Washington, Seattle, the United States.

**UNBC Travel Award (2013)**

CAD \$1000 travel grants to present and participate in a Conference in the University of Wisconsin–Madison, Madison, Wisconsin, the United States

**Young Scientists Research & Action Grants for Disaster Risk Reduction (Round III)  
(2007/08)**

Innovative action-oriented projects for DRR at community, ProVention Consortium, Switzerland  
Worth USD \$ 10000 for two years (2007-2009)

**Research Grant, 2007/2008**

Himalayan Climate Center grant for youth research for the study of Flood Disaster impacts of Adikhola River, Putalibazar, Syngja, Nepal  
Worth USD \$2000 to support masters research at Tribhuvan University, Kathmandu Nepal.

**Work experience:**

**Aerological Observer (part-time) (July 2014 - )  
For Environment Canada Upper Air Stations Network**

Prince George Aerological Station,  
3666 Massey Drive, PG, BC, Canada

**Teaching Assistant (2012-2016)**

Courses on Atmospheric sciences, Geography and GIS  
University of Northern British Columbia, PG, BC, Canada

**Research Associate (09/2009 -08/2012)**

Water and Hazards, International Center for Integrated Mountain Development (ICIMOD, [www.icimod.org](http://www.icimod.org)), Lalitpur, Nepal

**Research Assistant (05/2009-08/2009)**

Flood Disaster Impacts Assessment of Dudkoshi River. As a part of Consultation service to ICIMOD, Nepal (with Prof. Dr. Narendra Raj Khanal).

**Team Leader (Research) (2008)**

Climate variability and impacts on Water resources in Khudi Watershed, Lamjung, Nepal for ProVention Consortium, Switzerland under its research grants fund for Disaster Risk Reduction Action Program, Nepal

**Research Assistance (2008 January - 2009 February)**

Advancing Capacity in Climate Change Adaptation (ACCCA), Project (Work of Himalayan Climate Center for disaster risk reduction and flood disaster impact mitigation in Putalibazar, Syngja) jointly conducted by Himalayan Climate Center, Kathmandu and Department of Hydrology and Meteorology (DHM) Ministry of Environment, Science and Technology, Government of Nepal, Kathmandu, Nepal

**Member, Organizing Committee (22-24 June 2007)**

National Conference on the Environment organized by Central Department of Environmental Science, Tribhuvan University and Ministry of Environment, Science and Technology, Government of Nepal, Kathmandu, Nepal

**Teaching, Science Teacher** (2005/2006)

Padmodaya Higher Secondary School, Ramshahpath, Kathmandu, Nepal

**EIA Specialist** (2006/2007)

Initial Environmental Impact Study, Western Nepal focusing on Environmental Science Including Geology, Limnology, Hydrology, and Pollution, Nepal

**Publications:**

**Sharma, A. R., & Déry, S. J.,** (2015). Climate change impacts on water resources in the Nechako River Basin, BC. In *American Geophysical Union (AGU) Fall Meeting 2015, San Francisco, CA, USA.*

**Sharma, A. R., & Déry, S. J.** (2015). Elevational dependence of air temperature variability and trends in British Columbia's Cariboo Mountains, 1950 -2010. *Atmosphere-Ocean [ In Press].*

Shrestha, A. B., Bajracharya, S. R., **Sharma, A. R., & Duo, C.** (2015). Observed Changes and Trend in Daily and Extreme Temperature and Precipitation over the Koshi River Basin :1975-2010. *International Journal of Climatology [ Manuscript submitted].*

Shrestha, M. S., Bajracharya, S. R., & **Sharma, A. R.** (2014). Accuracy of satellite-based rainfall estimates in small mountainous catchments : A case of Khudi Khola. In *7th Workshop of the International Precipitation Working Group (IPWG), Tsukuba, Japan.*

**Sharma, A. R.** (2014). *Trends and elevational dependence of the Hydroclimatology of the Cariboo Mountains, British Columbia.* University of Northern British Columbia.

**Sharma, A. R., Déry, S. J., & Cannon, A.** (2014). Elevational dependence of climate variability and trends in British Columbia's Cariboo Mountains, 1950 - 2010. In *5th Northwest Pacific Climate Science Conference, University of Washington, Seattle, WA, USA.*

**Sharma, A. R., Shrestha, A. B., & Bajracharya, S.** (2013). Climatological variability and trends in the Koshi River Basin, Nepal. *Himalayan Journal of Development and Democracy*, 8(250), 1–19.

**Sharma, A. R.** (2013). *Analysis of meteorological data of the Cariboo Mountain Regions.* University of Northern British Columbia, NHG,NRESi,University of Northern British Columbia,Prince George,BC.

**Sharma, A. R.,** Bardossy, M., Bulmer, L., Jones, E., & Nitz, M. (2013). *Snow Survey Report in the Ancient Forest area of Northern British Columbia, Canada*. University of Northern British Columbia, University of Northern British Columbia, Prince George, BC.

**Sharma, A. R.** (2012). *A Statistical & Spectrum analysis of selected climatic parameters in two CAM stations of Northern British Columbia : Lower Castle Creek & Upper Castle Creek*. NRESi, University of Northern British Columbia, University of Northern British Columbia, Prince George, BC.

**Sharma, A. R.** (2011). Climate Change and Climatological analysis of Nepal. In M. Macchi, A. Gurung, B. Hoermann, & D. Choudhary (Eds.), *Climate Variability and Change in the Himalayas Community perceptions and responses*. Lalitpur, Kathmandu, NEPAL: ICIMOD.

**Sharma, A. R.** (2011). Climate Change Adaptation in mountain areas of Nepal. *NESAJ PATRA*, 8(1).

**Sharma, A. R.,** Khanal, N. R., & Sharma, K. P. (2010). *Climate Change trend and perception of local people at Khudi watershed, Lamjung, Nepal*. Abstract on diverse environmental issues, collection from CDES/TU. Occasional Publication published by CDES/TU, EnCARF Nepal and National Academy of Science and Technology (NAST). Kathmandu, Nepal.

**Sharma, A. R.** (2010). *Vulnerability due to climate change and rural adaptation [in Nepali Language]*. An article published on “Harit Dristi” monthly publication of Voice Action Vision (VAV), Kathmandu, Nepal.

**Sharma, A. R.** (2009). *Community Vulnerabilities to Climate Change and Local Coping Mechanisms in Khudi Watershed*. CDES, Tribhuvan University.

## **Conferences /Workshops/ Presentations/ Participations:**

### **Oral Presentations**

**5<sup>th</sup> Annual Northwest Pacific Climate Science Conference**, 9-10 September 2014, **Elevational dependence of climate variability and trends in British Columbia’s Cariboo Mountains, 1950-2010**, University of Washington, Seattle, WA, USA

**9<sup>th</sup> UNBC graduate Conference**, 25-26 February, 2014  
**Hydro-climatological trends of the Cariboo Mountains**, University of Northern British Columbia, Prince George, BC, Canada

**8<sup>th</sup> Himalayan Conference on Policy and Research**, 17<sup>th</sup> October 2013  
**Climatological variability and trends in the Koshi River Basin, Nepal.**

University of Wisconsin, Madison 42<sup>nd</sup> Annual conference on South Asia pre-conference, Madison, Wisconsin, USA

**ProVention Consortium–ADPC Workshop, Innovative Action Oriented Initiatives in Disaster Risk Reduction**, 11-12 December 2009

*Climate variability and impacts in Khudi Watershed, Nepal*

Young Professionals in South, South-East and East Asia, Bangkok, Thailand

**Dissemination Workshop on Assessing Community Vulnerabilities due to Climate Change and Local Coping Mechanism**, 12-19 December 2008

A case study of Khudi watershed, Khudi, Lamjung, Nepal, organized by Living Earth and Department of Hydrology and Metrology, Government of Nepal

**Wetlands for Healthy Earth, River Guide Environmental Training Program**, 2008

Nepal River Conservation Trust (NRCT) on the occasion of World Wetland Day, Kathmandu, Nepal

**Water Pollution in a Workshop for Students- Bhotekoshi River Festival**, 2007

Conducted by Nepal River Conservation Trust (NRCT) & Promoted by Nepal Tourism Board (NTB), Sindhupalchok, Nepal

**Workshop on Role of Environmental Scientists in Nepal & Tree Plantation Program**, 5<sup>th</sup>

June 2006 Central Department of Environmental Science, Tribhuvan University & Society of Environmental Science Students (SESS) on the occasion of World Environment Day-06

**Sand mining and its Impacts on Bagmati watershed in Workshop on Bagmati River**, 2006

Nepal River Conservation Trust (NRCT), Environment Concern Group Nepal (ECGN) and College of Applied Sciences (CAS), Kathmandu, Nepal

**Workshop on Bagmati River** 2006

Nepal River Conservation Trust (NRCT), Environment Concern Group Nepal (ECGN) and College of Applied Sciences (CAS). Kathmandu, Nepal

### **Poster Presentations**

**American Geophysical Union (AGU) Fall Meeting 2015**, 12-18 December 2015, **Climate change impacts on water resources in the Nechako River Basin, BC**. San Francisco, CA, USA.

**Climatological Variability in the Cariboo Mountains**, 4<sup>th</sup> October 2013

NRESi Ice Breaker session, University of Northern British Columbia, Prince George, BC, Canada.

**Climate Change and Community Perceptions: A Case from Mountain of Nepal**, 2012

Planet Under Pressure Conference 2012([www.planetunderpressure2012.net](http://www.planetunderpressure2012.net)), London, UK

## **Contributions (Organizer)**

### **A Dissemination Workshop on Assessing Community Vulnerabilities due to Climate Change and Local Coping Mechanism, 12-19 December 2008**

A case study of Khudi watershed, organized by Living Earth and Department of Hydrology and Metrology, Government of Nepal

### **A Workshop on Role of Environmental Scientists in Nepal & Tree Plantation Program, 5<sup>th</sup> June 2006**

Central Department of Environmental Science, Tribhuvan University & Society of Environmental Science Students (SESS) on the occasion of World Environment Day-06. Kathmandu

### **Workshop on Bagmati River, 2005**

Nepal River Conservation Trust (NRCT), Environment Concern Group Nepal (ECGN) and College of Applied Sciences (CAS). Kathmandu, Nepal

### **Tri-Chandra Book Festival & Environmental Exhibition-2061, 2005**

Tri-Chandra Multiple College, Ghantaghar, Kathmandu. Nepal

### **Workshop on Air Pollution in Kathmandu Valley and Eco-Cultural Show, 2005**

EPSAN (Environmental Protection and Social Welfare Association Nepal), in association with ESPS (Environmental Sector Program Support) and Ministry Of Population and Environment, Kathmandu, Nepal

## **Participations**

### **UNBC-CNC Teaching and Learning Conference, 28-29 August 2013**

Prince George, BC, Canada

### **5<sup>th</sup> National Conference on Science and Technology, November 10-12, 2011**

National Academy of Science and Technology, Kathmandu, Nepal

### **National Conference on the Environment, 22-24 June 2007**

Central Department of Environmental Science, Tribhuvan University and Ministry of Environment, Science and Technology, Government of Nepal, Kathmandu, Nepal

### **First National Conference on Renewable Energy Technology for Rural Development (RETURD), September 2006**

Alternative Energy Promotion Center (AEPC), Center for Energy Studies, CES/IOE/TU & Nepal Solar Energy Society (NSES), (September), Lalitpur, Nepal

## **Affiliations:**

Student Representative for Center BC and Yukon, 2015-present

## **Canadian Meteorological and Oceanographic Society (CMOS)**

Founder and member, 2006- present

### **Living Earth Nepal**

Secretary, 2010-2012

### **CDES Alumni Association**

Member, 2008-2012

**Youth Network for Social and Environmental Development** ([www.yonsed.org.np](http://www.yonsed.org.np), YONSED), Kathmandu, Nepal

Member, 2007/2008

**Society of Environmental Science Students (SESS)**, Central Department of Environmental Sciences, Tribhuvan University, Kirtipur, Nepal

### **Trainings:**

**Data Analysis for Climate and Climate Change Studies**, 15-19 August, 2011  
The Small Earth Nepal and UNESCO, Kathmandu, Nepal

**Academic Writing Course**, April 26 to May 13, 2010  
Human and Institutional Development, ICIMOD, Nepal

**Team Building and Working in a Team**, 7-9 September, 2009  
Human and Institutional Development ICIMOD, Nepal

**De Bono Thinking System**, November 14, 2009  
Human and Institutional Development ICIMOD, Nepal

**Proposal and Report Writing**, June 2-9, 2008  
YONSED, Kathmandu, Nepal.

**Constituent Assembly Election Observation**, March 31-April 3, 2008  
National Election Monitoring Alliance (NEMA) and Election Commission of Nepal

**Geographic Information System (GIS) for Beginners**, November 12-16, 2007  
Nepal GIS Society, in support from ICIMOD, Nepasoft and ESIR.

**Remote Sensing**, 11-19 December, 2007  
Central Department of Geography, Tribhuvan University, Kirtipur, and Kathmandu, Nepal

**Environmental Impact Assessment (EIA)**, 1-15 July 2007  
School of Environmental Management and Sustainable Development, Purbanchal University and Central Department of Environmental Science, Tribhuvan University, Nepal



## **Honors/Rewards/Grants:**

**Research & Action Grants for Disaster Risk Reduction (Round III), 2007/08**  
Innovative action-oriented projects for DRR at community, ProVention Consortium,  
Switzerland

**Research Grant, 2007/2008**  
Himalayan Climate Center grant for youth research for the study of Flood Disaster impacts of  
Adikhola River, Putalibazar, Syngja, Nepal

## **References:**

1. **Dr. Stephen Déry,**  
Associate Professor, Environmental Science and Engineering Program  
Canada Research Chair in Northern Hydrometeorology  
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Tel #: 250 960 5193, Fax#: 250 960 5845,  
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2. **Dr. Peter L. Jackson,**  
Professor of Atmospheric Sciences,  
Environmental Science and Engineering Program  
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E-mail: [peterj@unbc.ca](mailto:peterj@unbc.ca),  
Web: <http://cirrus.unbc.ca/peterj/>
  
3. **Dr. Andrew B.G. Bush,**  
Professor of Earth and Atmospheric Sciences, and  
Past President, Canadian Meteorological and Oceanographic Society  
(CMOS) - 2008-09 [www.cmos.ca](http://www.cmos.ca)  
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- 4. Dr. Arun Bhakta Shrestha,**  
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*I certify that all the information stated in this CV is true and complete to the best of my knowledge. I authorize to verify the information provided in this CV.*

*Updated: 10-06-2016*

Aseem Raj Sharma