

	<p>P12: JAWAHARLAL NEHRU UNIVERSITY</p> <p>New Delhi, India</p>
	<p><i>Departments concerned with SUNRAISE-related topics:</i></p> <ul style="list-style-type: none"> - School of Environmental Sciences - Special Centre for Disaster Research
	<p><i>Contact person:</i> Prof. Dr. P. K. Joshi (pkjoshi27@hotmail.com)</p>

SUNRAISE-RELEVANT RESEARCH TOPICS

1.	<p>Research in the different ecosystems of the Indian Himalayan Region ranging from:</p> <ul style="list-style-type: none"> - Above and below-ground biodiversity management - Glacier monitoring and mapping - Forest resource assessment - Agricultural management - Soil management - Challenges and possibilities of urbanisation
2.	<p>Sustainable landscape management in the Himalaya from a socio-ecological perspective, including:</p> <ul style="list-style-type: none"> - Development of traditional communities' areas - Role and needs of human component in influencing the structure and function of landscape
3.	<p>Vulnerability and risk assessment/ multi-hazard mapping and evaluations in the Himalaya</p>

KEY PERSONALITIES, POTENTIAL MASTER'S AND DOCTORAL SUPERVISORS

- Prof. Dr. P. K. Joshi – *Research interests: Himalaya; Vulnerability; Remote sensing; GIS*
- Prof. Dr. S. C. Garkoti – *Research interests: Himalaya; Forest; Ecology; Restoration*
- Prof. Dr. J. K. Tripathi – *Research interests: Geology; Earth Processes; Paleoclimate*
- Prof. Dr. K. G. Saxena – *Research interests: Ecology; Natural Resource Management; Sustainable development*
- Prof. Dr. Al Ramanathan – *Research interests: Glacier; Climate change; Geology*
- Prof. Dr. Deep Narayan Pandey – *Research interests: Community based disaster management; Disaster economics; Remote sensing; GIS*

CURRENT AND PAST PROJECTS

Project 1: “An ecological study of paradoxical re-establishment of white oak in chir-pine invaded habitats and change in certain ecosystem processes and services in white oak-chir-pine ecotone areas in central Himalaya”	<i>Funded by:</i> The University Grants Commission (UGC) (major research project), India <i>Keywords:</i> Carbon; Biomass; Litter	<i>Project type:</i> research
Project 2: “Urban resilience and adaptation for India and Mongolia”	<i>Funded by:</i> Erasmus+ Programme of the European Union <i>Keywords:</i> Green and blue infrastructure; Nature based solutions	<i>Project type:</i> capacity building
Project 3: “Network programme on convergence of traditional knowledge systems for integration to sustainable development in the Indian Himalayan region”	<i>Funded by:</i> Department of Science and Technology, India <i>Keywords:</i> Traditional knowledge; Sustainable development; Himalaya	<i>Project type:</i> research
Project 4: “Promoting citizen science for creation of a phenology network to track climate change and plant invasions”	<i>Funded by:</i> Department of Science and Technology, India <i>Keywords:</i> Citizen science; Phenology; Climate change	<i>Project type:</i> research
Project 5: “Estimating mass balance of glaciers in the Bhaga basin, western Himalaya, using GPR and remote sensing method”	<i>Funded by:</i> Ministry of Earth Sciences, India <i>Keywords:</i> Glaciers; Himalaya; Mass balance	<i>Project type:</i> research
Project 6: “Bioclimatic feedbacks of melting Himalayan ice”	<i>Funded by:</i> Department of Science and Technology, India <i>Keywords:</i> Glaciers; Himalaya	<i>Project type:</i> research

CURRENT AND RECENT PhD THESES

- Anees M. M. “Characterising urban ecosystems in the capital cities of the Western Himalaya” (2018 – ongoing)
- Deepika Mann “Spatio-temporal analysis of effects of road network in Central Himalayan region” (2018 – awarded)

- Neha Chauhan “Socio-environmental vulnerability of agricultural communities to climate change in Western Himalaya” (2019 – ongoing)
- Praveen Kumar “Assessing climate change vulnerability and adaptation strategies of socio-ecological systems in the Central Himalaya” (2018 – ongoing)
- Saurabh Kaushik “Understanding eastern Himalaya cryosphere using remote sensing” (2018 – ongoing)
- Sonali Sharma “Regulating ecosystem services in urbanising landscapes of Western Himalaya” (2020 – ongoing)

RESEARCH AMBITIONS IN RELATION TO SUNRAISE

1. Development of further research activities in the Indian Himalaya to help in the attainment of the Sustainable Development Goals (SDGs) in the region

ENABLERS AND BARRIERS ENCOUNTERED FOR RESEARCH DEVELOPMENT

Enablers	Barriers
<ul style="list-style-type: none"> ➤ Networking with other stakeholders (NGOs, etc.) ➤ Collaboration with other partner universities ➤ Participation in the SUNRAISE project 	<ul style="list-style-type: none"> ➤ Shortage of financial resources ➤ Shortage of trained staff members ➤ Shortage of political will to support the field ➤ Shortage of networking with and among institutions

NATIONAL RESEARCH/ POLICY SUPPORTING RESEARCH DEVELOPMENT

1. National Education Policy 2020 (NEP 2020)
2. Notification for Academic Bank of Credits (ABC) by the University Grants Commission (UGC)

CAPABILITY IMPROVEMENT TARGETED TO FULFIL THE ASPIRED RESEARCH GOALS

Improvements are desired in:

- Equipment/ software
- External experts support
- Cooperation with national and foreign institutions

ENABLERS AND BARRIERS ENCOUNTERED FOR RESEARCH TRAINING

Enablers	Barriers
-	➤ Shortage of equipment