#### Curriculum Vitae

#### **Prof. Dr. Sunil Nautival**

(Alexander von Humboldt Fellow, FNIE, ZALF Fellow, JSPS Fellow)

Director.

G.B. Pant National Institute of Himalayan Environment 'NIHE'

(An Autonomous Institute of Ministry of Environment, Forest and Climate Change, Government of India)

Kosi - Katarmal, Almora, 263 643, Uttarakhand, India

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Professor (On deputation)

Centre for Ecological Economics and Natural Resources (CEENR)

Institute for Social and Economic Change (ISEC)

Dr. V.K.R.V. Rao Road, Nagarabhavi, Bangalore - 560 072, India

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Honorary Professor University of Ladakh,

#### Area of Research

Socio-ecology of landscape; Environmental Conservation and Natural Resource Management; Land use Land Cover and Landscape Dynamics; Production System Analysis; Resource Flow and Resource dynamics; Biodiversity Conservation; Biodiversity Monitoring and Mapping; Climate change; Hotspot and local livelihood; GIS and Remote Sensing in Landscape Research; Ecological modeling (Ecologist)

#### Education

PhD (Specialization Ecological Science), from H.N.B. Garhwal University (HNBGU), Srinagar, Garhwal (1999). \*(Ph.D. work was carried out in the Garhwal Unit, G. B. Pant Institute of Himalayan Environment and Development (GBPIHED) An autonomous Institute of Ministry of Environment and Forests, Govt. of India under the supervision of Prof. RK Maikhuri

(http://www.gbpihed.gov.in/envis/thesis/thesis nautialsunil.html)

## Title of doctoral thesis:

Ecosystem function of buffer zone villages of Nanda Devi Biosphere Reserve

## **Brief biodata**

Sunil Nautiyal is a Professor at the Centre for Ecological Economics and Natural Resources, Institute for Social and Economic Change. He works to develop an integrated interdisciplinary approach for sustainable landscape development. This includes an operational framework to integrate approaches from ecological and social sciences to assess the impact of policy and behavioural changes linked with natural resource conservation and management and livelihoods of communities in various agro-ecological regions of India.

He has published over 200 scientific papers and articles and 16 books with good citations. He participated as coordinator in 35 research projects in the thematic areas of biodiversity conservation, natural resource management, climate change- adaptation and mitigation,

ecological modeling, rural ecosystem and livelihood development, RS-GIS in landscape dynamics. During last couple of years, he has organized more than 25 national and international conferences/workshops/training programmes at ISEC and outside ISEC with external funding support. He has received Humboldt Kolleg Grant (award) to strengthen the scientific collaboration between Germany and India with a motto: 'Germany and India-Infinite Opportunities'. He received JPPS research fellowship award from Japan and Humboldt Fellowship award from the Alexander von Humboldt Foundation, Germany. Elected as Fellow National Institute of Ecology (NIE) and honoured as ZALF Fellow by the Leibniz-Centre for Agricultural Landscape Research (ZALF) for research work and publications. He is on the Editorial board of international journals. He has worked as Visiting Scientist at Centre for Environmental System Research, University of Kassel, Germany during the year 2010-2011 and 2013. Dr. Nautiyal awarded Platinum Jubilee Award Lecture for Environmental Science Section of 106th Indian Science Congress held in LPU Jalandhar from 3rd to 7th January 2019, which was inaugurated by the Hon'ble Prime Minister of India.

# Professional Recognitions, Awards, Fellowships Received

#### International

- Received *Japan Society for the Promotion of Science (JSPS)* Fellowship to do Post doc research at Center for Spatial Information Science, The University of Tokyo, Japan in 2003 for 2 years.
- Received *Humboldt Fellowship* from the Alexander von Humboldt Foundation, Germany to work at Leibniz-Centre for Agricultural Landscape Research (ZALF), Institute of Socio-Economics, Muencheberg, Germany in 2006 for 2 years.
- Nominated for one of the *best researchers of the year 2007* at Leibniz-Centre for Agricultural Landscape Research (ZALF), Eberswalder Str. 84, Muencheberg, 15374, Germany for research publications (Value of the award was Euro 2250/-).
- Honoured as Fellow (ZALF Fellow) by Leibniz Centre for Agricultural Landscape Research, Germany (2014- onwards).
- *Visiting Scientist*, at Centre for Environmental System Research, University of Kassel, Germany, with support from Alexander von Humboldt Foundation, Germany, 1.12.2010 28.1.2011 and 1.5.2013 30.6.2013.
- Received *Humboldt Kolleg Grant* to Commemorate 60th anniversary of the establishment of diplomatic relations between the Federal Republic of Germany and India.
- Alexander von Humboldt Foundation, Germany has recognized Prof. Sunil Nautiyal (CEENR, ISEC) for supervising German Research Fellows under Feodor Lynen Research Fellowship of the Alexander von Humboldt Foundation, Germany.

#### National

- YPS Pangtey Memorial Award for outstanding contribution on Socio-Ecological Research (2022)
- Iron Man Pt. Devram Nautiyal Environment Award, for Most Distinguished Contribution to Himalayan Environment Promotion by Iron Man Devram Nautiyal Foundation, Nauti, Chamoli (2024)

- Elected Fellow, National Institute of Ecology (NIE) Certificate of Excellence on Outstanding Contribution to Ecology and Election as Fellow in 2018 of National Institute of Ecology (NIE).
- Honorary Professor at the University Ladakh
- National Advisory Board Member, Centre for Space Science & Allied Discipline, University of Ladakh
- Certificate of Excellence on Outstanding Contribution to Ecology and Election as Fellow in 2018 of National Institute of Ecology (NIE)
- Awarded *Platinum Jubilee Award Lecture for Environmental Science Section* of 106th Indian Science Congress held in LPU Jalandhar from 3rd to 7th January 2019, which was inaugurated by the Hon'ble Prime Minister of India.
- Ranked in the list of *top three scientists* at the national level among all the research institutions (ICSSR, Govt. of India) for the research publications/citations/h-index for the period 2011-2020.
- Chair, Assessment Panel, GATI Program of WISE-KIRAN, Department of Science and Technology, Govt. of India.
- Nominated as Jury Member of Nav Bharat Nirman-Building of the New India, IISF (2020), by the Ministry of Science and Technology, Govt. of India

#### Member Editorial Board of the Journals

Contributing to the dissemination of scientific information on sustainable development of mountains through the editorial role in a few international journals. In addition, I have edited special issue of International Journal of Forestry Research. SI: Biodiversity Conservation and Sustainable Socioecological Development of Forest Dependent Communities under REDD+). At present editing special issues of two international journals – (a) Land Use Policy IF-5.938 (Elsevier) – SI: Restoring South Asian Forests: Opportunities and Challenges; (b) Frontiers Ecology and Evolution (IF-2.4) SI: Conservation in contested landscapes!

## Member Reviewer Board of the 70 International Journals

## **Research Projects Ongoing**

- Development and Implementation of working frameworks for Climate Smart Village: An approach for Integrated Sustainable Rural Development", Department of Science and Technology, Govt. of India.
- Assessment of Carrying Capacity of an Eco-sensitive Landscape of Western Ghats, CAMPA, Govt. of Karnataka.
- Utilisation of bamboo resources for sustainable livelihood development and bioresource conservation. MBDP, Govt. of Maharashtra.
- The Rural-Urban Interface of Bangalore: A Space of Transitions in Agriculture, Economics and Society (Structural and functional attributes of field margin vegetation towards sustainable social-ecological development of the rural-urban interface), Department of Biotechnology, Govt. of India.

- 'Climate Smart Livelihood and Socio-ecological Development of Biodiversity Hotspots of India' by Technology Information, Forecasting and Assessment Council (TIFAC), DST, Government of India.
- Climate Change, Dynamics of Shifting Agriculture and Livelihood Vulnerability in the North Eastern Region of India, sponsored by Indian Council of Social Science Research (ICSSR), New Delhi in collaboration with Assam University Silchar and CEENR, ISEC.
- Documentation of People's Biodiversity Registers (PBRs) in five districts of Karnataka funded by Karnataka Biodiversity Board, Govt of Karnataka.

## **Research Projects Completed**

- Prospects for enhancing circular economy; strategies for policy inclusion and green finances: A case study in peri-urban landscapes of India", NIDM, MHA, Govt. of India.
- Carbon Footprint and changing lifestyles of Indian Households (GIZ (International cooperation) GIZ Office (India), New Delhi 110 029.
- Climate resilient agriculture and socio-ecological sustainability: A case study (NIDM, MHA, Govt. of India).
- Exploring Wild Edibles of the Male Mahadeshwara Betta (MM Hills) and their potential for the socio-economic development of local people (through scientific and technological interventions), Department of Science and Technology (DST), Government of India.
- Integrating air and space-borne spectroscopy and laser scanning to assess structural and functional characteristics of crops and field margin vegetation. (Department of Biotechnology, Government of India).
- Urbanization of Agricultural Land, Fodder and Dairy Production, and Resource Use Efficiency at the Rural-Urban Interface (International Centre for Development and Decent Work (ICDD), University of Kassel, Germany).
- Conservation of Agro-biodiversity and ecosystem management: a study in Indian agroclimatic sub-zones' by Technology Information, Forecasting and Assessment Council (TIFAC), DST, Government of India.
- Land use change and soil fertility. Funded by (ZALF, Germany).
- Enabling tribal communities to improve livelihoods and enhance biodiversity conservation: Scientific and technological interventions for sustainable ecosystem development in BR Hills, Western Ghats (DST, Government of India).
- A model-based approach to analyse climate change impacts in rural regions of India and to explore potential adaptation strategies (AvH, Germany).
- Livelihoods, Vulnerability and Adaptation Strategies to Climate Variability and Change: A bottom-up approach to simulate the climate change impacts in two sensitive ecological regions (biodiversity hotpots) of India (DST, Government of India).
- Evaluation study on impact of implementation of Western Ghats Development Programme in Karnataka (RDPR, Govt. of Karnataka)

- Eco-diversity study in and around the BARC Project site at Challakere, Chitradurga District, Karnataka. (Sponsored by Bhabha Atomic Research Centre, (BARC), Govt. of India).
- Baseline Study of Flora Fauna at proposed uranium mining site at Gogi, Gulbarga district, Karnataka (Sponsored by Department of Atomic Energy, Bhabha Atomic Research Centre (BARC), Government of India).
- Climate Change: Mitigation and Adaptation Strategy, Programs and Pilot Projects for Karnataka a bottom-up approach. Sanctioned by World Bank (I was unable to initiate the project because of my absence for international assignment).
- Study of Developmental Programmes and Scheme of the Departments of Forest, Ecology and Environment (Expenditure Reforms Commission).
- Urban Influence on Rural and Peri-urban Landscapes: Socioeconomic and Ecological Perspective
- Forest Resources and Economic Growth: An Enquiry into the Growth Linkages of Forest Cover in Indian States

# Supervision of Post-Doctoral, Doctoral (PhD), Internship, Masters and Bachelors scholars/students

- Supervision of Post-Doctoral Fellow
  - Prof. Sunil Nautiyal supervised a National Post Doctoral Fellow (awarded from DST-SERB, Ministry of Science and Technology 'MST', Government of India) for a period of two years (April 2019 to March 2021)
- Doctor of Philosophy: Seven PhD Scholars completed their doctoral work and a few more are pursuing PhD work in the guidance of Prof. Sunil Nautiyal

## Guidance of students and research scholars for dissertation and internship

#### a. National

• At the national level Prof. Nautiyal mentored 60 intern students for their Master's/Bachelor's research from various Indian universities and research institutes (i.e. Department of Environmental Sciences, Gyan Bharati Campus, Bangalore University, VIT University Vellore, TERI University, Delhi, Solapur University, Solapur, Rajasthan Central University, Ajmer, IP University, New Delhi, TISS-Hyderabad, Rajiv Gandhi National Institute of Youth Development (RGNIYD), Sriperumbudur, BHU, Varanasi and many others (Most of the students were supported by Dr. Nautiyal's research projects for fellowship)

#### b. international

• Prof. Sunil Nautiyal supervised 08 International scholars for their Master's and PhD work from institutions and universities in USA, Germany, Africa, Netherlands, Mexico under the international research collaboration.

## MSc Thesis Supervision (international)

 Anna Kristina Backhaus (2020). Seasonal composition of spontaneous plant species and their uses in rural and peri-urban areas of Bengaluru, India. Supervisors: Prof. Dr. Andreas Buerkert, University of Kassel, Germany and Prof. Sunil Nautiyal Institute for Social and Economic Change (ISEC), Bengaluru, India- In the Joint Programme Sustainable International Agriculture at Georg-August-University of Gottingen and the University of Kassel, Germany.

#### **Teaching**

- Coordinator of Development Studies Course for first-year PhD Students of Development Studies at ISEC
- Course coordinator, Paper V (Sustainable Development) and Paper VIII (Indian Environmental Issues), Institute for Social and Economic Change for ISEC PhD Students
- Teaching ISEC PhD students in their PhD foundation course (Research Methodology/Perspective).
- Delivered lectures to the MSc Environmental Science students at Department of Environmental Science, H.N.B. Garhwal University, Srinagar, Garhwal during the academic session 1998–1999.

International, National conferences, workshops organized mobilizing funds from national and international research founding organizations

#### A. International Conferences

- 1. **Sunil Nautiyal** organized a 2-day seminar on "Advancing Frontiers of Knowledge on Climate Action Cross-sectional Approaches for Mitigation and Resilience" in Collaboration with, IIM-A, IIT-B, Supported by GIZ (New Delhi).
- Sunil Nautiyal organized a Three-day international workshop on 'Green Growth Strategies for Climate Resilience and DRR: Policies, Pathways and Tools' (26-28 November 2020). This international workshop was organized in association with National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India.
- 3. Nautiyal Sunil. Organised International Conference on "Scientific and indigenous bio-cultural knowledge in understanding climate change in biodiversity hotspots to develop strategies for socio-ecological development: data availability, requirement and gaps (in association with Assam University Silchar, Assam) (27<sup>th</sup> and 28<sup>th</sup> July 2017).
- 4. **Nautiyal Sunil.** Organised one-day workshop on "Socio-ecological Development Under Changing Environment: A Case study at the International Workshop on Ecological Systems in the Indian Rural-Urban Interface: Functions, Scales, and Dynamics of Transition' held at HESCO, Dehradun (February 13, 2016).
- 5. **Nautiyal Sunil.** Organised two-day International Conference on "Climate Change and Social-Ecological-Economical Interface-Building: Modelling Approach to Exploring Potential Adaptation Strategies for Bio-resource Conservation and Livelihood Development" held at ISEC in collaboration with University of Kassel, Germany (May 20-21, 2015).
- 6. **Nautiyal Sunil.** Organised one-day International Seminar on "Climate Change and Food Security: The Global and Indian Contexts" in collaboration with University of Sydney held at ISEC (February 18, 2015).

7. **Nautiyal Sunil.** Convened International Conference (International Humboldt Kolleg - IHK) on "Adaptive Management of Ecosystems: The Knowledge Systems of Societies for Adaptation and Mitigation of Impacts of Climate Change, 19th to 21st October 2011. IHK 2011 was celebrated to commemorate the 60th Anniversary of Diplomatic relations between Germany and India.

## B. National conferences/Workshops

- 8. **Nautiyal Sunil** organized ISEC Golden Jubilee Training Workshop on "Wild Edibles of the Male Mahadeshwara Betta (MM Hills) and their potential for the socioeconomic development of local people" Date: March 08, 2022: Venue: Hanur, Chamarajanagar District, Karnataka
- 9. **Sunil Nautiyal** Organized National Webinar on "Climate Change- Ecological Restoration and Socio-Ecological Sustainability" Jointly organized by University of Mysore, DOS in Environmental Science, Mysuru &Centre for Ecological Economics and Natural Resources (CEENR), Institute for Social and Economic Change (ISEC), Bengaluru. on 2<sup>nd</sup> July 2021
- 10. **Sunil Nautiyal** organized a Workshop cum Focus Group Discussion on "Household Carbon Footprint: Perceptions and Suggestions for Low Carbon Lifestyle" on 29th January 2021 at Madhya Pradesh Vigyan Sabha, Bhopal, Madhya Pradesh.
- 11. **Sunil Nautiyal** organized a Workshop cum Focus Group Discussion on "Household Carbon Footprint" on 19th January 2021 at Sacred Heart College, Tirupattur, Tamil Nadu.
- 12. **Sunil Nautiyal** organized the Thematic panel on 'Natural Resources, Biodiversity, Remote Sensing and Geographic Information System' during 43rd Indian Social Science Congress, January 17-21, 2020, Bengaluru Central University, Bengaluru (Focal Theme: Current Science of Nature-Human-Society in India).
- 13. **Nautiyal Sunil.** Organized national workshop on "Agrobiodiversity conservation for sustainable socio-ecological development" at Mangalore University, Mangalore (24<sup>th</sup> September 2018).
- 14. **Nautiyal Sunil.** Organized national workshop on "Resource use and conservation for sustainable socio-ecological development" in association with NIRDPR, Guwahati at NIRD, Guwahati, Assam (21st 22nd December 2017).
- 15. **Nautiyal Sunil.** Organised National workshop titled "Agro biodiversity conservation: Socio-Economic and Ecological Development", was organised in Assam University, Silchar (5th April, 2017).
- 16. **Nautiyal Sunil.** Organised Two-day National Workshop cum Training on 'Renewable Energy Law, Policy and Climate Change: Indian Perspective' in association with Centre for Sustainable Development, Bangalore and the Ministry of New and Renewable Energy, Government of India held at ISEC during (February 26-27, 2016).
- 17. **Nautiyal Sunil.** Convened Group Monitoring Workshop on "Technology Interventions for Tribal Empowerment (TITE) & Scheduled Caste Sub Plan (SCSP) Schemes" at ISEC (29-31 January 2014).

- 18. **Nautiyal Sunil.** Organized National Conference on "Ecological Economics: An Approach towards Socioeconomic and Environmental Sustainability" & Prof. R. Misra Birth Centenary Lecture at ISEC (30 September 1 October 2009).
- 19. **Nautiyal Sunil.** Organized National Conference on "Climate change and its impact at micro level: Data requirement and availability" at ISEC (16-17 April 2009).

#### C. Farmers to farmers training workshop

- 20. **Nautiyal Sunil.** Organized one day training workshop on medicinal plants cultivation and biodiversity conservation at Muntipalya village, Chamrajanagar, Karnataka (20-7-2013) with financial support from DST, Govt. of India. Coordinator: Sunil Nautiyal
- 21. **Nautiyal Sunil.** Organized one-day field workshop on "Farmer to Farmer Interactive Workshop on Conservation of Agro-biodiversity, Resource Utilization and Ecosystem Management' in collaboration with Punyabhoomi, Hassan at Gowripura Village, Hassan on March 11, 2016. Coordinator: Dr. Sunil Nautiyal
- 22. **Nautiyal Sunil.** Organized first training workshop at MM Hills on "Exploring Wild Edibles of the Male Mahadeshwara Betta and their Potential for the Socio-Economic Development of Local People". The workshop was organized on April 2nd, 2018 at MM Hills, Chamrajanagara. Coordinator: Sunil Nautiyal

#### D. International field school programme

23. **Nautiyal Sunil.** Coordinated field school programme for the researchers of University of Sydney from Feb 12-17. Various programmes were conducted in coordination with Karnataka Forest Department and Forestry College, University of Agriculture Sciences, Ponnempet, Madikeri.

#### E. International course

24. **Nautiyal Sunil.** Coordinated ISEC-NCI International Course from **2013 to 2016** on "Approaching the Environment in India – Issues and Methods in the Study of the Nature-Economy-Society Interface". The number of students participated were from various universities/institutions in Nordic countries, namely Denmark, Germany, Sweden and Finland.

#### **Training course (national)**

25. Coordinated Non- Residential Courses on "Administrative, Managerial and Engineering Training for the Engineers from BWSSB" was organized by the Centre, sponsored by BWSSB, during 16<sup>th</sup> to 21<sup>st</sup> August 2010.

## Administrative experience

- Head Centre for Ecological Economics and Natural Resources, ISEC, Bangalore August 2014 – June 2022
- Head (I/c) Centre for Ecological Economics and Natural Resources, Institute for Social and Economic Change, Bangalore (18.9.2008 to 15.01.2009 & April 2010 to July 2010);
- Full time Ph.D. Programme Coordinator, Institute for Social and Economic Change w.e.f. 01.10.2010 for two years

- Honorary Hostel warden, Institute for Social and Economic Change w.e.f. 01.09.2012 for two years
- Member building committee, ISEC Bangalore 2012 2014
- Member Research Programme Committee, ISEC Bangalore
- Member Academic Programme Committee, ISEC Bangalore
- Vice chairperson library committee, ISEC (2017-2018)

## **Membership**

- Life member of Society for Environment and Development, India
- Indian Science Congress Association (Life Member)
- Delhi University Botanical Society (Life Member)
- National Institute of Ecology, New Delhi (Life Member)
- International Society for Environmental Information Sciences, Canada
- Theme on Governance, Equity, and Rights –TGER/IUCN/CEESP
- Society for conservation and resource development of medicinal plants, New Delhi
- The South Asian Network for Development and Environmental Economics (SANDEE)
- Member: Advisory/ Editorial/ Reviewer Board of many peers reviewed international journals.

#### **Professional Association**

- Sunil Nautiyal nominated as a Member of Programme Advisory Committee for technical evaluation of proposals received under Consolidation of University Research for Innovation and Excellence (CURIE) Programme, Ministry of Science and Technology, Govt. of India (For three years from January 2022).
- Sunil Nautiyal appointed as a member of PhD Doctoral Committee in Environmental Science, Under the Faculty of Science, Bangalore University, Jnana Bharathi Bangalore from 2019 for a period of three years (under the Regulations governing the Degree of Doctor of Philosophy in Bangalore University).
- Sunil Nautiyal appointed as a member Board of Studies in board of studies (BOS) of Department of Environmental Sciences H.N.B. Garhwal University (A Central University) Srinagar (Garhwal) -246174, Uttarakhand from 2020 for a period of three years (under the regulations of the HNB Garhwal University (A Central University).
- **Sunil Nautiyal** is a Member of Doctoral Committee at Department of Environmental Science, Karnataka State Open University, Mukthagangothri, Mysore 570006, India.
- **Sunil Nautiyal** is a member of Doctoral Committee, Rajiv Gandhi National Institute of Youth Development, Sriperumbudur, Tamil Nadu.
- Sunil Nautiyal is a Member of Doctoral Committee, VIT UNIVERSITY, Vellore, Tamil Nadu, India
- Sunil Nautiyal is a member of Doctoral Committee, Central University of Gujarat, Gandhinagar

- **Sunil Nautiyal** served as a member of Board of Studies in Department of Economics, Assam University Silchar (A Central University), Assam, from 2016-2019.
- **Sunil Nautiyal** served as a Member of Research Advisory Committee of Indian Plywood Industries Research and Training Institute (IPIRTI), Autonomous Body of Ministry of Environment and Forests, Govt. of India. Bangalore (2014-2017)
- Sunil Nautiyal served as a Member of Expert Committee for creation of database on climate change of the Ministry of Statistics and Programme Implementation, Govt. of India, (2009-2010)
- Participation and Presentation in International/National conferences >150
- Total Research Experience: 25 Years

## Weblinks:

- https://scholar.google.co.in/citations?user=rkFf6cQAAAAJ&hl=en
- https://orcid.org/0000-0002-1481-7754
- https://www.scopus.com/authid/detail.uri?authorId=7003824834
- https://publons.com/researcher/3700045/sunil-nautiyal/
- <a href="https://www.researchgate.net/profile/Sunil Nautiyal">https://www.researchgate.net/profile/Sunil Nautiyal</a>