



सन्गजू

S A N G J U

Sacred **A**ttempt for **N**atural **G**rowth & **J**oyful **U**ion



‘सन्गजू’ - जिसका क्षेत्रीय भाषा में अभिप्राय “सहयोगी” या “मित्र” से है, पवित्र कैलाश भू-क्षेत्र संरक्षण एवं विकास पहल के तहत भारतीय भू-क्षेत्र में कार्यरत सभी सहयोगी संस्थाओं द्वारा किये जा रहे कार्यकलापों से सभी सरोकारों को अवगत कराने का एक प्रयास है। पत्रिका का प्रकाशन निरन्तर होना है, जिसमें परियोजना से जुड़े सहयोगियों के अतिरिक्त, भू-क्षेत्र में कार्यरत अन्य संस्थाओं के कार्यकलापों को भी उचित स्थान दिया जायेगा।

‘Sangju’ – The Newsletter is so named as the term in local dialect signifies the holy association or friendship. This is an attempt to make all concerned aware about activities and efforts contributed by various partners of “Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI)” within Indian part of landscape.

The Newsletter is scheduled to be published regularly in which happenings within the landscape, other than activities of partners, will also get suitable place.



Table of Contents

समन्वयक की कलम से

From Coordinator's Pen

1

अंतिम सोपान

The Final Lap

2-3

Brainstorming on Landscape Approach
PSC Meeting and Field Visit
National Synthesis Workshop
Video Documentary on KSLCDI

मुख्यधारा एवम् अभिसरण की ओर

Towards Mainstreaming and Convergence

4-6

Strengthening SSM Across Landscape
Biodiversity Strategy: Conservation and Work Planning
Mainstreaming of Van Rajis
Exploring New Intervention Areas
Convergence for Resource Conservation

प्रदर्शन, प्रोत्साहन एवं जागरूकता

Showcasing, Promotion & Awareness

7-9

Showcasing at Landscape Forum
Chyura Value Chain Products and Ecotourism
Conservation of Socio-Cultural Landscape
Strengthening Mechanism of ABS
Science-Society-Practice Interface
Sustainable Management of Yarsa Gumba (Keeda Jari)
Workshop on Ecotourism
Village Cleanliness Drive

अन्तर्राष्ट्रीय जैव विविधता दिवस

International Day for Biological Diversity...

10-12

IDB at GBPNIHESD
IDB at Hat- Kalika
IDB at Narayan Ashram
Landscape Yatra
IDB at Chandak-Aunlaghat Pilot

भू क्षेत्र के अनुभव

Experiences from Landscape

13-21

Kailash Sacred Landscape : Learning & Experiences
Tiger in the Kailash Sacred Landscape
Maati: A Model for Promoting Rural Livelihood in KSL India
Geospatial Information on Kailash Sacred Landscape-India

जौहार की बदलती परिस्थितियाँ

22-24

बचपन की यादें

ॐ

समन्वयक Coordinator

पी.पी. ध्यानी P.P. Dhyani

निदेशक, Director,

गो.ब. पंत राष्ट्रीय हिमालय पर्यावरण एवं सतत विकास संस्थान G.B. Pant National Institute of Himalayan Environment and Sustainable Development

मुख्य संपादक Chief Editor

आर.एस. रावल R.S. Rawal

संपादक मंडल Team of Editors

बी.एस. अधिकारी B.S. Adhikari

पंकज तिवारी Pankaj Tiwari

गजेन्द्र रावत Gajendra Rawat

गिरीश नेगी Girish Negi

रवीन्द्र जोशी Ravindra Joshi

ॐ

© 2017 GBPNIHESD

G.B. Pant National Institute of Himalayan Environment & Sustainable Development, Kosi-Katarmal, Almora 263 643, Uttarakhand, India

Citation

GBPNIHESD. 2017. Sangju – A Newsletter of KSLCDI. Almora, Uttarakhand, India: G.B. Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHED).

Published by

G.B. Pant National Institute of Himalayan Environment & Sustainable Development (An Autonomous Institute of Ministry of Environment, Forest & Climate Change, Government of India)
Kosi-Katarmal, Almora 263 643, Uttarakhand, India
<http://www.gbpihed.gov.in>

इस समाचार पत्रिका की सूचना विभिन्न संस्थाओं से मिली सूचनाओं पर आधारित है, अतः किसी भी त्रुटि या भूल हेतु गो.ब.प.रा.हि.प.स.वि. संस्थान या संपादक गण जिम्मेदार नहीं होंगे, समाचारों की विस्तृत जानकारी हेतु सम्बन्धित आयोजक संस्थान से सम्पर्क करें।

Disclaimer: The information furnished in this Newsletter is based on the inputs received from various organizations, so the Institute (i.e. GBPNIHESD) or any member(s) of the editorial board will not be responsible for any mistake, misprint or factual error, if any. To get further details about the news, please contact the concerned organising institute.

Photo Credits: Ravindra K Joshi, Renu Suyal, Meenakshi Negi, Ghansyam Pandey, Ajaz Hussain & Arti Kala

Cover Drawing: A shade of Rhythmic silence of Kutti-the last village towards Adi-kailash- Ms.Dipti Dey's Creation (GBPNIHESD)

समन्वयक की कलम से . . .



“कैलाश परियोजना” का पहला चरण वर्ष 2017 में पूरा होने जा रहा है। परियोजना के चरम को दृष्टिगत करते हुये भारतीय भागीदार संस्थाओं द्वारा साल के पूर्वार्ध में मजबूत व व्यापक परिणामों की दिशा में समन्वित प्रयास किये गये ताकि नीति व योजनाओं को सार्थक ढंग से प्रभावित किया जा सके। वर्ष 2017 के प्रथम छमाही में सहभागियों द्वारा अनेक गोष्ठियां, निम्न

मुख्य उद्देश्यों के साथ आयोजित की गयी—(i) लैण्डस्केप अवधारणा को परिभाषित करना, (ii) सीमापारीयता व पवित्रता को उजागर करने हेतु सम्भावित क्षेत्रों को निर्दिष्ट करना, (iii) सहभागियों द्वारा समन्वित परिणामों की प्राप्ति हेतु अभिसरण की सम्भावना तलाशना।

साल के प्रारम्भ में ही, आई.सी.एम.ओ.डी. द्वारा एक ब्रेन स्ट्रामिंग कार्यशाला जनवरी माह में आयोजित की गई जिससे परियोजना के परिणामों को ‘लैण्डस्केप अवधारणा’ के परिपेक्ष में समायोजित करने का खाका मिला। नई दिल्ली में फरवरी माह में आयोजित प्रोग्राम स्टेइरिंग कमेटी की बैठक में परियोजना उपलब्धियों की समीक्षा की गई तथा प्रभाविता को बढ़ाने हेतु निर्देश दिये गये। इसी क्रम में कैलाश भू क्षेत्र के भारतीय भू भाग में भ्रमण के आयोजन से अन्य दो सहभागी राष्ट्रों के प्रतिनिधियों को भारतीय क्षेत्र में किये गये कार्यों की प्रगति को देखने व समुदायों के साथ वार्ता से प्रतिपुष्टि कर अपने कार्यों में रणनीतिक बदलाव लाने का मौका मिला। जून 2017 में आयोजित नेशनल सिन्थैसिस कार्यशाला से “कैलाश परियोजना” के प्रथम चरण के परिणामों को और अधिक संगठित करने का प्रोत्साहन मिला।

जबकि परियोजना अपने प्रथम चरण की समाप्ति की ओर अग्रसर है, मेरी हार्दिक इच्छा है कि सभी सहभागियों द्वारा किये प्रयास प्रभावकारी परिणाम देंगे, जिससे हमारी विश्वसनीयता स्पष्ट: दृष्टिगोचर होगी जो कि द्वितीय चरण का मंच तैयार करने में सहायक होगी।

डा. पी.पी. ध्यानी
निदेशक

गो.ब. पन्त राष्ट्रीय हिमालयी पर्यावरण एवं सतत विकास संस्थान
प्रमुख समन्वयक
पवित्र कैलाश भू-क्षेत्र संरक्षण व विकास पहल
भारतीय भू-भाग

From Coordinator's Pen ...

KSLCDI is completing first phase of its implementation in 2017. Visualizing this culmination, Indian Partners are making concerted efforts to come up with a consolidated and comprehensive outcomes which would inform policy and programmes. Several rounds of partner's meetings were held during first half of 2017, especially to i) define and strengthen of landscape approach, ii) suggest potential areas to highlight trans-boundaryness and sacredness, iii) identifying convergence possibilities among partners for integrated outcomes.

In the very beginning of the year (January 2017), brainstorming workshop convened by ICIMOD on landscape approach provided a broad conceptual framework for aligning outputs with this concept. The Project Steering Committee (PSC) meeting held in New Delhi (February 2017), critically examined the progress and provided directives for improved impact. A field visit across KSL-India part gave an opportunity to partners from other two countries to see the progress and to gather community feedback for strategic maneuvering. The National Synthesis Workshop (June 2017) gave further impetus for consolidation of outputs of Phase -I.

As the Phase I of programme is approaching to its end, I wish, the efforts put-forth by all partners would yield outcomes having wider impact. This will make our credentials more effective and visible enough to set stage for KSLCDI Phase II.

Dr. P.P. Dhyani

Director
G.B. Pant National Institute of Himalayan
Environment and Sustainable Development
Lead Coordinator
KSLCDI-India

अंतिम सोपान...

The Final Lap ...

वर्ष 2017 में कैलाश भू-क्षेत्र परियोजना कार्यान्वयन के अपने प्रथम चरण को पूर्ण करने जा रही है। इसी को ध्यान में रखते हुए माह जनवरी में आई.सी.एम.ओ.डी. निर्देशित कार्यशाला में समस्त भारतीय सहयोगी संस्थानों द्वारा अब तक के किये गये कार्यों की समीक्षा के साथ-साथ कार्यों को समन्वित एवं संगठित तौर पर प्रस्तुत करने की आवश्यकता पर बल दिया गया। माह फरवरी में आयोजित प्रोग्राम स्टेयरिंग कमेटी की बैठक में परियोजना की पुनर्समीक्षा में अब तक हुई प्रगति पर चर्चा की गई व भविष्य की सम्भावना पर विचार हुआ साथ ही भारतीय भू क्षेत्र के चयनित स्थलों का परियोजना के अन्य दो सहयोगी राष्ट्रों के प्रतिनिधियों द्वारा भ्रमण कर निरीक्षण एवम् मूल्यांकन किया गया। तत्पश्चात्: जून माह के प्रथम सप्ताह में राष्ट्रीय स्तर पर संश्लेषण कार्यशाला के तहत सहयोगी संस्थानों द्वारा समन्वित लक्ष्य निर्धारण के साथ-साथ समयबद्ध तरीके से परियोजना के उद्देश्यों को पूर्ण करने की प्रतिबद्धता दोहरायी गयी। इसी क्रम में परियोजना की कार्यदायी एवं अनुदान संस्थान, आई.सी.एम.ओ.डी. द्वारा भू-क्षेत्र में परियोजना के अर्न्तगत संचालित कार्यविधियां, प्रणालियां एवं चयनित स्थलों के व्यापक प्रदर्शन की सम्भावनाओं पर प्रकाश डाला गया।



Brainstorming on Landscape Approach

Aimed to strengthen landscape approach, ICIMOD and GBPNIHESD organized "Brainstorming Meeting" for KSL-India partners on 14-15 January 2017 at Nayagaon near Corbett National Park, Uttarakhand. The meeting was facilitated by Mr. Gagan Sethi, an invited expert from Jan Vikas, Ahmadabad. Meeting witnessed intensive deliberations on landscape approaches, integration of work components, identifying areas and issues of trans-boundariness, and upcoming work strategies for consolidation of KSL work. It further focused on analysis of the datasets, defining combined learning and coordination. Towards the end of meeting, Indian partners also deliberated on possible contents for developing Phase II programme of KSLCDI.

PSC Meeting and Field Visit

The 5th Programme Steering Committee (PSC) meeting, hosted by Ministry of Environment Forest & Climate Change (MoEF&CC) Government of India, was organized on 17 Feb, 2017 at India International Centre, New Delhi. The meeting was coordinated by the Director General ICIMOD, Dr. David Molden, as Chair, and Additional Secretary, MoEF&CC, GOI, Dr. Amita Prasad, as Co-chair. During the meeting presentations on KSLCDI Phase-I were made by ICIMOD and nodal institutions of partner countries (China, India and Nepal). The PSC expressed happiness over the progress and broadly agreed on further planning towards next phase of KSLCDI. The committee suggested to focus more on sustainability aspects with due consideration of mountain fragility and prevailing out-migration issues. As a

follow-up of previous PSC meeting recommendation a visit of country partners and PSC members was organized to Indian part of KSL. Team came across different intervention sites and had community interactions in pilot site to gain deeper insight of the progress made by Indian team and also to feel the nerves of locales for planning next phase. During the visit, this team interacted with diverse stakeholders in Hat-Kalika and Chandak-Aunlaghat pilot watersheds. Representatives from different partner countries shared their experiences with the team members.



अंतिम सोपान...

The Final Lap ...

National Synthesis Workshop

Focused on consolidation of KSLCDI work activities of Phase I, a three days (1-3 June, 2017) National Synthesis Workshop was organized at Wildlife Institute of India (WII), Dehradun. The workshop was attended by professionals from ICIMOD, and all Indian partner organizations. The workshop highlighted the need of convergence among partners for effective and visible outputs/outcomes by the end of project. Following a thorough deliberation, the workshop clearly delineated the outputs and outcomes which need to be achieved in collaborative manner and role and responsibilities were shared among partners. Besides other exercises, it also initiated documentation of process for KSLCDI Phase-I through a fish-bowl exercise. It was emphasized that there is a need to take up documentation on valuation of sacredness of landscape and, also write popular articles for common people.



Video Documentary on KSLCDI

A team of professionals from ICIMOD visited the KSL-India landscape during 1-6 July 2017, for documenting the various activities undertaken during the KSLCDI Phase I. The team visited various intervention sites of targeted watersheds. During the videography, the team documented activities and had interactions with communities in village Bans (Self Help Group, Biodiversity Management Committee, Gogna and Kunth Gaon (Churya value chain), Digtoli and Nakina (Spring shed management, Long-Term Ecological Monitoring sites and Van Panchayat Augmentation site) of Chandak Aunla Ghat watershed and adjacent areas. Further, in vertical transect, the team visited village Himkhola (Ecosystem Management Plan) and interactions were held with community. Also, at Sri Narayan Swami Ashram the team captured interventions of KSLCDI followed by interaction with the trustees of the Ashram. The team also visited Hat-Kalika watershed and subsequently entered KSL-Nepal. The visit was facilitated by KSL india partners GBPNIHESD and CHEA.



मुख्यधारा एवम् अभिसरण की ओर...

Towards Mainstreaming and Convergence...

मुख्यधारा से जुड़ने एवम् अभिसरण के प्रयासों के तहत परियोजना द्वारा संचालित वैज्ञानिक कार्यविधियों को विभिन्न स्तरों (जिला एवं राज्य) की बैठकों/कार्यशालाओं में प्रतिभाग कर प्रदर्शित किया गया। इसमें धारा विकास एवम् जैव विविधता संरक्षण एवं प्रबंधन हेतु कार्यशालाएँ प्रमुख रही। इसके अतिरिक्त वन राजियों को मुख्यधारा में सम्मिलित करने के प्रयासों में आर्थिकी से जुड़े उपक्रमों की जानकारी एवं चुनावों के प्रति जागरूकता अभियान चलाया गया है। इस वर्ष उच्च हिमालयी भू-क्षेत्रों में आर्थिकी संवर्धन की सम्भावनाओं को तलाशने हेतु प्रयास किए गये। इसके अतिरिक्त अभिसरण के प्रयासों को सुदृढ़ता प्रदान करते हुए परियोजना के अंतर्गत आई.यू.सी.एन. द्वारा संचालित वन संवर्धन परियोजना में सहयोग एवम् सामंजस्य कायम करने के प्रयास किये गये तथा विभिन्न हितधारकों द्वारा विचार-विमर्श गोष्ठी में प्रतिभाग कर परियोजना के सन्दर्भ में विचार साझा किये गये।

Strengthening SSM Across Landscape

To review the progress on water related projects in KSL India part, Indian partners were invited to share experiences of water management activities under KSLCDI during MGNREGA workshop convened by District Magistrate (March 4, 2017). The workshop was attended by various representatives of District level line agencies and CBOs. Representative from GBPNIHESD, the Nodal organization of KSLCDI in India, showcased Spring Shed Management (SSM) approach and deliberated upon the importance of geo-hydrological consideration for rejuvenation of water resources in hills. Citing an example of community mobilization and intensive engagement of Uttarakhand Forest Department for SSM in Digtoli, Nakina and other adjacent villages, the gathering was motivated to consider this approach in their planning and execution efforts, primarily aimed towards water conservation.

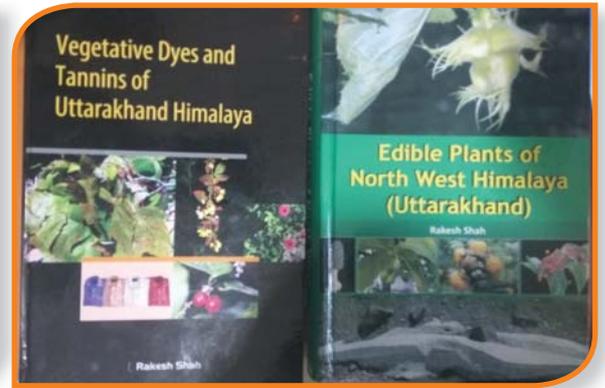


मुख्यधारा एवम् अभिसरण की ओर...

Towards Mainstreaming and Convergence...

Biodiversity Strategy: Conservation and Work Planning

Realising the shifts in global approaches of biodiversity conservation and management, a state level workshop on "Biodiversity strategy: conservation and work planning" was organised by State Biodiversity Board (SBB) and also attended by KSLCDI representative (March 21, 2017) at Dehradun. The workshop deliberated upon various existing mechanisms and approaches of conservation of biodiversity in different sectors/groups (e.g., Agri-diversity, Birds, fishes, etc.). While deliberating upon the various themes of the workshop, it also touched upon the changing socio-economic and demographic transitions in the region and emphasized to develop region specific strategies. During the event two books namely Vegetative Dyes and Tannins of Uttarakhand Himalaya and Edible Plants of North West Himalaya (Uttarakhand) written by Dr. Rakesh Shah were also released.



Mainstreaming of Van Rajis

As contribution to mainstreaming process of Van Rajis, one of the most primitive ethnic groups, CHEA attempted voter awareness campaign during the State legislative election, 2017. The campaign focused on inculcating self esteem among the hitherto marginalised tribes of Van Rajis to participate in election and to make use of their right to cast vote for selecting the candidate of their choice.

In addition, various schemes and programmes of district level line departments were mobilised and extended to Van Rajis as a means of subsistence and improved farming income source. In the process, 15 families of Van Rajis were supported by departments of Agriculture (provisioning of wheat and cucurbit seeds) and Veterinary (goatry and cow), 60 families of Jajurali through ILSP (provisioning of vegetable seeds) and 40 families in Pangu falling in Vertical transect from forest department on poultry promotion.



मुख्यधारा एवम् अभिसरण की ओर...

Towards Mainstreaming and Convergence...

Exploring New Intervention areas

Towards strengthening outreach and expansion possibilities in vertical transect of the landscape, a joint exploration survey of CHEA and District Development Manager (DDM) NABARD was organised (28-30 March, 2017). The visit aimed at promoting horticultural and agricultural activities along with RWHT and Polyline tanks among 140 families of Pangu-Himkhola. The visit and community interaction revealed immense scope and potential of income diversification. The possibilities of diversification were felt through integration of subsidiaries like pisciculture (already have 3 successful sites), poultry and polyhouse cultivation along with strengthening of irrigation facilities.

Convergence for Resource Conservation

A landscape level stakeholders consultation workshop on Forest Land Restoration (FLR) was organized in Pithoragarh (June 2, 2017). District Magistrate Shri C. Ravisankar chaired the workshop. The workshop was convened by IUCN India and supported by KSLCDI. The aim of the workshop was to seek inputs of stakeholders regarding issues pertaining to land restoration in the landscape. The gathering was informed about land restoration activities and progress achieved through KSLCDI. The event expressed hope that initiative with strong convergence with allied departments and institutions would be helpful in identifying areas and interventions for successful restoration. The workshop concluded with a hope that the first ever ROAM (Restoration Opportunities Assessment Methodology) exercise being conducted in Pithoragarh district will help the line departments to plan their activities more effectively



प्रदर्शन, प्रोत्साहन एवं जागरूकता...

Showcasing, Promotion & Awareness...

कैलाश परियोजना के परिणामों को अधिकाधिक हितधारकों तक पहुंचाने के क्रम में जिला अधिकारी, पिथौरागढ़ द्वारा भू क्षेत्र में संचालित विभिन्न परियोजनाओं की प्रगति समीक्षा के दौरान परियोजना की ओर से संयोजक संस्थान एवं सहयोगी संस्था 'चिया' द्वारा परियोजना के अंतर्गत किये गये कार्यों का विवरण प्रस्तुत किया गया। इसके अतिरिक्त चिया द्वारा परियोजना के अंतर्गत विकसित मूल्य वर्धित उत्पादों के प्रदर्शन व रक्षा अनुसंधान एवं विकास संस्थान (डी.आर.डी.ओ.) द्वारा भू-क्षेत्र के सामाजिक-सांस्कृतिक परिदृश्य के संरक्षण हेतु आयोजित कार्यशाला में प्रतिभाग किया गया। इसी क्रम में जीआईजेड. एवं टीईआरआई के सहयोग से उत्तराखण्ड जैव विविधता बोर्ड द्वारा 'जैवविविधता प्रबंधन कमेटी विकास एवं जैवविविधता पंजिका का जैव संसाधनों के क्रय विक्रय में योगदान' से संबंधित कार्यशाला का आयोजन किया गया। जागरूकता अभियान के अंतर्गत परियोजना द्वारा विज्ञान-समाज प्रायोगिक अंतर्संबंधों की सुदृढ़ता के लिए भू क्षेत्र के विभिन्न स्थानों में सामूहिक चर्चाओं का आयोजन किया गया। पूर्व वर्षों की भांति इस वर्ष भी परियोजना को स्वच्छ भारत अभियान से जोड़ने के प्रयासों के अन्तर्गत गोरंग घाटी के ग्राम नकीना में कूड़ा प्रबंधन पर जोर देते हुए स्वच्छता अभियान चलाया गया।

Showcasing at Landscape Forum

KSLCDI partners (GBPNIHESD and CHEA) attended a review meeting convened by District Magistrate (March 9, 2017) to evaluate the progress of ongoing projects in District Pithoragarh. Besides critical progress review, the meeting aimed to have knowledge of the projects and their linkages with Government schemes and efficacies w. r. t. socio-economic development of the people. Addressing the gathering, which also included representatives of district line departments and several CBOs, KSLCDI partners GBPNIHESD and CHEA jointly made a comprehensive presentation on project work activities and approaches along with information on achieved outputs/outcomes. While the approach of the project was appreciated it was suggested to make it more practice oriented.



Chyura Value Chain Products and Ecotourism

KSLCDI partner-CHEA promoted its extensive range of Chyura value chain products during the 4th spring bird festival organized by Forest Department Uttarakhand in Nandhaur (Chorgalia), Uttarakhand (3-5 March 2017). Various eco-tourism activities being promoted in Gangolihat area of the KSL were also showcased. In addition, a case study was developed for Jawaharlal Nehru University entitled "Documenting traditional knowledge on Chyura: A socio-economically Important tree for Uttarakhand".

Realizing the changing dimensions of socio-cultural diversity and value systems, a consultative meeting, organized by state government was attended by CHEA during 26-27 March, 2017, at DRDO Pithoragarh. Beside deliberating on rich cultural heritage of the landscape, the meeting focused on conservation of the traditional and cultural systems such as folklores, art and craft traditional dance and songs and traditional food, etc. The meeting participants, viz. District level line agencies, CBOs and villagers of the region unanimously agreed and expressed concerns on growing disconnect and apathy of youth towards their traditional value systems, and underlined the need to evolve new methods and approaches to imbibe/inclucate a feel of pride in carrying the rich cultural legacy.

Conservation of Socio-cultural Landscape

प्रदर्शन, प्रोत्साहन एवं जागरूकता...

Showcasing, Promotion & Awareness...

Strengthening Mechanism of ABS

Considering the importance of People's Biodiversity Register (PBR) and Biodiversity Management Committee (BMC) for accruing benefits from biological resources, a consultative meet on BMC development and role of Biodiversity register in the trading of natural resources in Uttarakhand was organised by Uttarakhand State Biodiversity Board (UKSBB) in collaboration with GIZ and TERI, New Delhi. Among KSLCDI partners besides UKSBB, the representative of CHEA participated and provided inputs during the meet.



Science-Society- Practice Interface

A joint survey was organized in different parts of the landscape to enhance science-society-practice interface and wider community involvement in planning processes. Survey aimed at developing a series of science based awareness material for use of capacity building of the masses.

The material was prepared in bilingual format for wider acceptability and improved understanding of community. As follow up, a two days training of trainers (ToT) was organized for various representatives of villages, CBOs, District line agencies, R&D institutions and others during 11-12 April 2017. The resource persons from GIZ deliberated upon various dimensions of human behaviour and psychology through series of presentations viz. Field exercise, Johari Window, Level of resistance, Cup exercise, Sorting cards, Story with gap, Connecting through thread, Individual expressions and innovative feedback exercises. Participants were further exposed to use the manuals related to water conservation, spring-shed approach, invasive plants, yarsa gumba, chyura value chain and others, while interacting with the communities. The ToT was well appreciated by participants and expressed willingness to employ/use the learned methods and manuals in their respective work domains.



प्रदर्शन, प्रोत्साहन एवं जागरूकता...

Showcasing, Promotion & Awareness...



Sustainable Management of Yarsa gumba (Keeda Jari)

Amid the growing concerns on reckless extraction of Yarsa gumba in fragile and sensitive alpine habitats and its consequent implications, a community awareness field visit, led by CHEA and GIZ was held during 18 April to 01 May 2017. During the visit, the team tested the picture series manual on sustainable management of Yarsa gumba (*Ophiocordyceps sinenseis*) in 5 villages of Darma and Johar valleys and reached around 200 Yarsa gumba collectors.

Workshop on "Ecotourism in Uttarakhand: possibilities and pitfalls" was attended by KSLCDI-GBPNIHESD representatives on May 3, 2017 at Munsiyari. The workshop was organized by Himalayan Ark and Equations. Most attractive aspect of workshop was accommodation in home stays managed by women group in Sarmoli village. The participants, mainly the hotel owners, tour operators and guides expressed their views and discussed challenges of contemporary tourism activities. The workshop also deliberated on ongoing land use changes and increasing heaps of waste and subsequently pondered over the issues. The workshop provided suggestions on eco-friendly tourism practices and urged the participants for improved cooperation, so that benefits of tourism can be availed by the community people and actual stakeholders of the region.

Workshop on Ecotourism



Village Cleanliness Drive



Linking KSLCDI activities with the Swachh Bharat Mission of India, a one day cleanliness drive was organized at Nekina village, Gorang valley, District Pithoragarh (13 June, 2017). The programme focused on (i) raising awareness for cleanliness and its importance, (ii) possible segregation of the waste and preparing bio-compost using bio-degradable waste, (iii) cleaning

of water resources of the village, and (iv) collection of waste by cleaning the surrounding areas of the village. Nekina village has been adopted by the BCM-ES-CC group of the Institute under KSLCDI for organizing various awareness programme including activities targeting Swachh Bharat Mission. During the event, villagers were informed about India's Swachh Bharat Mission and the aim of the mission. Villagers then took part in the cleanliness drive wherein the paths and surrounding areas of the village were cleaned by the community. The waste material collected during this process was then segregated into biological/ degradable and non-biological/ non-degradable waste. Further, the community was informed about the methods of preparing organic manure at household level using bio-degradable waste generated from individual household. Whereas, the non-

degradable waste generated during the drive was disposed-off at a place far from village surroundings.

Furthermore, village people then cleaned their natural sources of water (traditionally known as Naula and Dhara) used for drinking, domestic and other household usages. Village community was then informed about basic methods of cleaning water (such as boiling, filtration, etc.) before its consumption. The event culminated with distribution of one garbage bin to every household of the Nekina village. Nearly 50 people of different age group from Nekina village participated in the village cleanliness drive. The villagers appreciated Institute's efforts for organizing the village cleanliness drive in Nekina village and showed their willingness to be part of different awareness generation activities/ programmes in the future.

अन्तर्राष्ट्रीय जैव विविधता दिवस...

International Day for Biological Diversity...

पूर्व वर्षों की भांति इस वर्ष भी अन्तर्राष्ट्रीय जैव विविधता दिवस को माध्यम बनाते हुए कैलाश परियोजना के तहत अनेक कार्यक्रम भू-क्षेत्र के विभिन्न स्थानों में आयोजित किये गये। इन कार्यक्रमों का उद्देश्य था अधिक से अधिक हितधारकों तक अपनी पहुँच बढ़ाना, इस वर्ष के मुख्य विषय जैव विविधता एवम् सतत पर्यटन को केन्द्रित करते हुए आयोजित कार्यक्रमों में विविध हितधारकों के विचार संकलित किये गये, विभिन्न स्कूलों में आयोजित कार्यक्रमों के तहत जहाँ एक ओर स्कूली विद्यार्थियों व अध्यापकों को जैव विविधता संरक्षण के विविध पहलुओं के प्रति जागरूक किया गया वहीं विषय आधारित प्रतियोगिताओं का आयोजन विद्यार्थियों में विषय के प्रति जिज्ञासा बढ़ाने हेतु किया गया।

IDB at GBPNIHESD

The theme of the International Day for Biological Diversity (IDB) of the year coincided with the observance of 2017 as the International Year of 'Sustainable Tourism' which emphasizes on betterment of mankind by connecting nature with the economic activity to protect the mother earth. These steps also contribute to achieve Sustainable Development Goal No. 15 while keeping the commitment of the country to the 'Convention on Biological Diversity'. Under this broad ambit, G.B. Pant National Institute of Himalayan Environment & Sustainable Development celebrated IDB at different locations of Indian Himalaya. Various activities conducted at different locations included: (i) Brain storming and group discussions on theme of the day by the invited experts and diverse stakeholders, (ii) Theme based competitions for school children (i.e., Dawing, Painting, and Essay and Poem writing), (iii) Educational lectures to the students on various aspects of biodiversity and sustainable tourism, and (iv) Exposure visits to Herbal Garden and Arboretum.

KSLCDI team at Institute (GBPNIHESD) HQs organised a brainstorming session which was Chaired by Shri Hem Pande, Former Secretary to the Govt. of India. The brainstorming focused on SWOT analysis (Strength, Weakness, Opportunity and Threat) w.r.t. Biodiversity and Sustainable Tourism in Uttarakhand in general and KSL in particular. A total of 49 researchers and faculty of the Institute participated. Further, to engage with multiple and diverse stakeholders, similar exercises were also conducted at two other locations of KSL India: (i) Sri Narayan Swami Ashram, Pithoragarh - 2700 m asl (76 participants), and (ii) Gangolihat, Pithoragarh - 1700 m asl (61 participants).



अन्तर्राष्ट्रीय जैव विविधता दिवस...

International Day for Biological Diversity...

IDB at Hat- Kalika

Following the IDB 2017 theme "Sustainable tourism", two day workshop (from 21-22 May) was jointly organized by GBPNIHESD and CHEA in Hat-Kalika pilot of the KSL-India. On day one, students from GIC Gangolihat, and nearby schools participated. The day was exclusively focused on sensitization on biodiversity conservation and its sustainable use. On day two the event was more targeted to document perspectives of tourists on ways of developing sustainable tourism in Hat-Kalika-Patal Bhuvneshwar heritage tourism complex.



IDB at Narayan Ashram

Like the other two events of IDBs, a consultative workshop focusing on biodiversity conservation and sustainable tourism was organized at Sri Narayan Ashram in the vertical transect of the KSL. The event was attended by pilgrims, tourists and local people. Their views on emerging opportunities and ways to capitalize on tourism potential were documented through SWOT analysis.

Landscape Yatra

Subsequent to the celebrations of IDB, landscape yatra along the targeted horizontal transect (Hat-Kalika watershed) and vertical transect (Munsiyari area) of KSL was organized during 22-26 May 2007. The focus of 'yatra' was on exploring biodiversity and tourism potential of selected sacred sites. The team visited the sites of Hat-Kalika heritage tourism complex; village Sarmoli, which provides home stays facilities to visiting tourists; Thamri Kund known for rich biodiversity and aesthetic values; and Birthi water fall. The yatra also aimed to develop and strengthen the yatra based communication material so as to inform on possible uptakes by stakeholders groups across different level.



अन्तर्राष्ट्रीय जैव विविधता दिवस...

International Day for Biological Diversity...

IDB at Chandak-Aunlaghat Pilot

Celebrating the IDB 2017, an awareness programme was organised by the Wildlife Institute of India (WII) at Govt. Inter College Gurangchaur, near Nakot. The event was attended by over 80 students and teachers of representative five selected schools/ colleges of the area (viz., Government Inter College, Bans-Maitoli, Government Inter College Guragchaur, J.B. Memorial Manas Academy, Veershiva Senior Secondary School, Pithoragarh and Mallikarjun Intermediate College) and members of Biodiversity Monitoring Committee from Bans-Maitoli. During the event, participants were oriented towards importance of local flora and fauna, significance of these species in daily lives, need for their conservation and harmful effects of alien invasive weeds such as Kalabansa (*Eupatorium* spp.) and *Lantana*. Besides, experts also deliberated on ecosystem services, and human-wildlife conflicts. Among others, the activities of newly formed BMC's



(Biodiversity Management Committee) in villages under this project and preparation of PBR (People's Biodiversity Register) by the locals and its long-term importance was discussed. The BMC members actively participated in the programme and extended logistic support.

A quiz competition based on ecosystem services, biodiversity of Uttarakhand and KSL-India was organized and best performing teams were given token of appreciation. The event was also linked with 'Swachh Bharat Mission' and intensively discussed on cleanliness of houses, villages, common toilets, environment, nature trails, nearby water springs, village path, rivers etc. The feedback of participants revealed need for frequent organization of such programmes in other parts of KSL - India.



भू क्षेत्र के अनुभव...

Experiences from Landscape...

विगत चार वर्षों में भारतीय भू-क्षेत्र में कार्यरत विभिन्न भागीदार संस्थाओं द्वारा अनेकों अनुभवों को संजोया गया है। पत्रिका के इस भाग में ऐसे ही कुछ अनुभवों अथवा जानकारियों को दिया जा रहा है। जो कि इस भू-भाग में हो रहे हो अनेकों परिवर्तनों या प्रयासों को दर्शाते हैं। जहां एक ओर एक साथी के द्वारा भू-क्षेत्र (लैण्डस्केप) के विविध पहलुओं जैसा कि उन्हें विगत चार वर्षों के अनुभवों से लगा, का चित्रण करने का प्रयास किया गया है, वहीं दूसरी ओर इस भू-क्षेत्र में पहली बार 3000 मी0 से अधिक उचाई पर कैमरा ट्रैप से बाघ की उपस्थित की पुष्टि करने का अनुभव साझा किया गया है। इसी प्रकार माटी संगठन द्वारा किये गये कार्यों से ग्रामीण महिलाओं को हो रहे लाभों व उत्तराखण्ड अन्तरिक्ष अध्ययन केन्द्र द्वारा भू-क्षेत्र के मानचित्रण में मिले अनुभवों को लिपिबद्ध किया गया है।

Kailash Sacred Landscape : Learning & Experiences

Ravindra K. Joshi

Field coordinator, KSLCDI

*G.B. Pant National Institute of Himalayan Environment and Sustainable Development,
Kosi-Katarmal, Almora- 263 643, Uttarakhand, India*

(rhinoraboo@yahoo.com)



In landscape projects, yatra based reflections are becoming quite instrumental to generate diverse views and concerns of the people in a short span of time. It is also viewed economical and viable to bring out multi-disciplinary and multi-location data sets, from relatively large area, which otherwise would consume much resources and energy.

To start my reflections...I would like to quote.....A picture in the room, is the picture of the mind, who hangs it..... For me the landscape is peerlessly beautiful, embracing an infinite canvas of numerous pictures, colors and shades that have multiple connotations and manifestation in endless ways, depending on the person and how it is being viewed.

Himalayan landscapes are different and unique in numerous ways. For me ...It is merely not an abode of snow, cool and calm as it looks, but a place always evolving and in transition. In geological perspective, it is an excellent representative of the youngest mountain chain still active and adjusting itself and its plates, biologically a progeny of two big land masses in its adolescence and growing, geographically a natural barrier which isolated and prevented species movement and facilitated speciation during the course of its evolution, historically a matter of pride, a protective shield preventing intrusion as well as aggressors from suspicious neighboring foes, socio-culturally a dwelling of god and goddesses, a playground of fairies, a place of super natural power and creatures, an origin of unique culture, traditions, folklores, customs, rituals, rites, costumes, myths, mythology, knowledge systems, a snout of countless rivers, which facilitated some of the ancient civilization to flourish on its down streams and fertile banks, a source of countless products and processes and many more...

Above all, for me... Himalaya, in general, is a place for self realization, as it broadens our horizon as we move closer to it or attain heights. It creates an isolation from the materialistic world and its mundane things without much effort. It provides a platform to contemplate and ponder over the purpose and value for being here. It is place to evolve and qualify ourselves for a blissful culmination from the bondages of endless births, deaths and miseries. It provides the desirable space and ambience to introspect ourselves, to evaluate our merits and demerits, to understand the underlying human values, a place to realize the ephemeral nature of life and permanency of the soul.

For meIt is a knowledge repository. It unfolds and reveals its secrets gradually but explicitly. It enriches us in many ways by depriving us of our comforts. It motivates to do things which we are usually afraid of. It shows its vastness while stretching our limits. It evaluate us while overcoming our weakness. It shows our vulnerability while making us strong. It exposes our characters while



expressing its dynamism. Over all, it has endless dimensions to learn, explore and evolve ourselves, physically, mentally and above all spiritually.

My perspective of the landscape might have influenced by some subconscious and embedded thoughts. However, our journey along and across the Kailash Sacred landscape had witnessed many moments of triumphs and turbulence, wherein the elements of sacredness (association with Lord Shiva and his family and several anecdotes of great epic Mahabharata) provided our team the necessary impetus and fueled our spirits to move on in a relatively harsh and unfamiliar region.

Landscape might look uncertain and behave erratically in many ways but one could be certain of people always ready and available for assistance. Although this scenario is also in transition largely because of the exposure to contemporary living styles, leading to growing acculturation and unnecessary urge to convert everything in concurrence.

Over the years, my explorations across the landscape taught me many things and widened or I would, rather say altered my thinking paradigm....In my opinion, we have contradicting views/approaches of conservation and management. In one hand, we look quite desperate to mainstream everything, including ourselves in accordance with the modern day economics, where, demands and supplies are externally driven and goods and services are becoming uniform in nature. On the other hand, we appear to be very much concerned about diversity decline, and attempting to conserve it without realizing the implications of the current norms. I would say, our conservation efforts or yatras would be much fruitful, if we could make people realize the importance of their surroundings and systems and feel proud of it. Secondly, and more importantly, if we could develop systems/ businesses locally to generate sustainable income resources for the communities, so that they become the lasting custodians of their natural assets.



Tiger in the Kailash Sacred Landscape: Good news for some, not so good for others

Ajaz Hussain, B.S. Adhikari, S. Sathyakumar & G.S. Rawat
Wildlife Institute of India, Chandrabani, Dehradun
(spengku1913@gmail.com)

Chhipla Kedar (3400 m) and Najurikot (4200m), located in Askot Range of Pithoragarh district, are among the most revered sacred natural sites in Indian part of Kailash Sacred Landscape (KSL). These sites are flanked by dense upper montane broadleaf forests, rich in flora and fauna. Most of these forested tracts fall under Askot Wildlife Sanctuary but surrounded by human habitations and seasonal livestock camps. In March 2016, a team of researchers from WII camera trapped a tiger (*Panthera tigris*) above village Kanar on way to Chhipla Kedar at an altitude of 3214m (Bhattacharyya and Habib, 2016). At that time it was considered to be the highest elevation at which tiger had been photographed in India. Subsequently, this tiger was again photo-captured by the WII Kailash team at much higher altitude (3740m) that beats the earlier records. It is interesting to note that nearest range of current tiger distribution is at least 200 kms from the present location towards downstream of River Sharada (Mahakali) close to Tanakpur both within India and Nepal. Obvious questions which come to mind are: which would be the source population of tiger in Kanar area? what would be the total population of tiger in this area? and what would be the future of this population?

Historically, the tract along lower parts of Gori valley right up to Chhipla Kedar and adjacent area towards Kali valley were teeming with wildlife. Rajah (King) of Askot estate used to invite British officers and Foresters for shoot in these areas. Wild mammals which were common in past and can still be seen occasionally are common leopard (*Panthera pardus*), Asiatic black bear (*Ursus thibetanus*), leopard cat (*Prionailurus bengalensis*), red fox (*Vulpes vulpes*), yellow throated marten

(*Martes flavigula*), Himalayan palm civet (*Paguma larvata*), sambar (*Rusa unicolor*), barking deer (*Muntiacus muntjak*), goral (*Naemorhedus goral*), Himalayan musk deer (*Moschus chrysogaster*), wild pig (*Sus scrofa*) and Himalayan tahr (*Hemitragus jemlahicus*). Charles A. Sherring (1906), in his book 'Western Tibet and the British Borderland: the Sacred Country of Hindus and Buddhists', gives an interesting account of a man-eating tiger which was killed in 1905 by a mob of villagers near Khela in Kali Valley, located on the eastern side of Chhipla Kedar. Further, Sherring stated that tigers were more common in this area during later half of 19th century and their population had declined drastically due to increasing habitation and deforestation. Subsequent decades witnessed more conflicts of this Feline with the humans. Last published account of man-eating tigers in Gori valley can be seen in a book by J.E. CarringtonTurner (1956) from the Imperial Forest Service who shot one of the two man eating tigers in 1956 between Garjia and Baram. The elderly people in Gori valley also recall

the occurrence of Indian wild dog (*Cuon alpinus*) in this area, which has not been sighted since several decades except a stray incidence a few years ago when the famous photographer Shri Anup Shah photographed one individual near Sirkha village in Chaudas Patti of Dharchula.

Occurrence and photo-capture of tiger in KSL is a good news for many but not so good for others. On a positive note, the conservation agencies may feel a sense of relief that the forests and other natural habitats in this landscape are still intact and continue to support adequate prey base and large predators such as tiger. However, with heavy use of humans for collection of non-timber forest produce, fodder and livestock grazing in the area, there is always a risk of tiger accidentally killing a livestock or a human being that may result in serious conflicts. At the same time, there is an acute shortage of trained and motivated field staff in the Forest Department that is necessary to patrol and keep vigilance in the remote





and physically challenging landscape. This makes the sanctuary and surrounds more vulnerable to illegal activities especially poaching. Fortunately, the local people in Kanar and adjacent areas are devotees of Goddess Durga and tiger is revered as vehicle of Durga. They believe that only those persons who are disliked by Goddess would be harmed by tiger. However, the moment there are recurrent conflicts this belief may be changed fast. Already, KSL is facing an increasing intolerance towards wildlife such as common leopard, Rhesus macaque, wild pig and langurs. As a result,

there is a general apathy towards wildlife and participatory management of forests and natural resources.

What can be done to ensure long term co-existence of humans and wildlife in KSL? How to increase harmony and partnership between the local communities and conservation agencies so as to minimize the conflict? These questions do not have simple and straightforward answers. Unless the local communities see direct benefits of protecting the forests and wildlife and unless the conservation agencies

come up with innovative mechanisms such as payment for ecosystem services, there is little hope for harmonious co-existence of people and wildlife. Currently, attempts are being made to prepare site specific mitigation plans for human-wildlife conflicts and participatory natural resource management planning in various parts of KSL. It is hoped that with increased conservation awareness and innovative livelihood approaches, the harmony between the local communities and threatened species of wildlife would be established in the long run.

References

- Bhattacharya, A. and B Habib. 2016. Highest elevation record oftiger presence from India. CATnews 64: 24-25.
- Sherring, C.A. 1906. Western Tibet and The British Borderland: The Sacred Country of Hindus and Budhists. Edward Arnold. London.
- Turner, J.E.C. 1959. Man-eaters and Memories. Rober Hale and Company, England.

Maati: A Model for Promoting Rural Livelihood in KSL India

Meenakshi Negi, INSPIRE Fellow
G. B. Pant National Institute of Himalaya Environment & Sustainable Development
Kosi-Katarmal, Almora 263643, Uttarakhand
(meenakshinegi.293@gmail.com)

In the forested backdrop of the Panchachuli ranges is located a maddeningly beautiful picturesque hamlet called Sarmoli. The village, located along the slopes comprising of dizzying hairpin bends and tantalizing flashes of the equally beautiful and serene Munsiyari town (gateway to the Johar valley), offers a unique tourism-conservation-livelihood model. As part of Kailash Landscape journey (Yatra, 2014), I was moved by the Yatra trek connecting us with the local nature of village Sarmoli. The un-utilized potential of this village Sarmoli was unearthed by



Ms Malika Virdi in the year 1992 when she helped the village women realise hidden potential of the nature based tourism enterprise. As one of the highly qualified (M. Phil. in Social Work) Sarpanch of the Van-Panchayat (Community forest management group) in the region, she made an attempt to link the village women with forest conservation and nature based tourism as a sustainable livelihood option. The empowerment and awareness involved various activities and took substantial time. However, success of these efforts is now visible when this village provides nice home stays to the visiting tourists within traditional houses and mouth watering traditional food during their stay. Bird watching and knowledge sharing on

regional flora and fauna has become yet another lucrative income option for villagers. However, most important success of Ms Malika's efforts can be seen as an organized group of village women known as 'Maati'.



Trekking above Sarmoli led us off the tracks into the lush green mixed oak forests offering ease and relaxation to the human soul with closeness to the hills, wildlife and beautiful panoramic views filled with birdcalls, foot marks and



scats of various animals reflecting a rich regional flora and fauna. At a distance of 4 Km from Sarmoli lies beautiful Mesar-Kund (Pond) surrounded by natural landscaped gardens making it an ideal picnic spot. Revival of once degraded Mesar-Kund is the concerted outcome of efforts of Maati and the Van-Panchayat of Sarmoli-Jaiti, Shankhadhura and the contributions of villagers with regular afforestation. Now the restored pond stands witness to various cultural

activities conducted every year as a tribute to the almighty for maintaining peace and prosperity in the village.



Maati, an autonomous women's organization in Sarmoli, was established to provide a source of earning to the village ladies by embedding a sense of entrepreneurship skills in marketing as



an answer to their day to day struggle or earning even the a basic livelihood. The marketing concept involved sale of traditionally woven/knitted woollen products like carpets, rugs, blankets, sweaters, etc. Maati also promoted the concept called Mahila-Haat, where



सब्जाजू | Sangju

प्राकृतिक विकास व आनन्दमय संगठन हेतु पवित्र प्रयास
Sacred Attempt for Natural Growth and Joyful Union

women came together and sold their agriculture produce and homemade snacks.

In mid 90's Maati also made its presence felt when they attempted to uproot the deeply rooted bad habits of alcohol consumption and domestic violence in the area. With a vision of a life free from violence for those oppressed by inequitable gender or by caste and class, the organisation strongly and boldly came forward and succeeded to convince people that the fact that alcohol consumption was the main cause. The organization undertook Sharaab-bandi Abhiyan, a campaign for closure of liquor brewing and selling shops.



Moreover, Maati now functions as a joint initiative with Himal Prakriti (a trust working on different environmental issues in the Himalayan region), and

contributes for local education through an informal gathering called Jungli School and a resource centre called Prakriti Kendra. Maati's effort of binding social, political and environmental issues in a model for sustainable livelihoods for the local populace works on the principles of equality and direct democracy. Staying at Sarmoli amongst the locals, experiencing the natural and serene beauty of an untouched, unexplored village where every house has been engraved with the success of Maati, one feels the potential of transforming the rural women folk across the landscape.



Geospatial Information on Kailash Sacred Landscape-India

*Gajendra Singh¹, Shashank Lingwal and Durgesh Pant
Uttarakhand Space Application Centre, Dehradun
(¹gajendrawat@yahoo.com)*

Geospatial information is a data referenced to a place—a set of geographic coordinates—which can often be gathered, manipulated, and displayed in real time. Geospatial information technologies, such as Geographic Information Systems (GIS), satellite Remote Sensing, and crowdsourcing have the ability to combine geospatial information in unique ways—by layers or themes—and extract something new as per the need. These technologies represent an invaluable tool for enhancing the capacity to benchmark and measure performance of development at different scales. Effective use of geospatial information can help to galvanize development efforts, implement successful targeted interventions, track performance and improve accountability.

Knowing where people and other elements of landscapes are, and how they are linked to each other, is essential for informed decision making. Besides real time information, location based information services are needed to prepare for and respond to upcoming needs. This helps Governments to develop strategic priorities, make decisions and measure and monitor outcomes. Therefore, availability of high resolution geospatial information is a requisite for developmental planning, and effectively measure, monitor and mitigate challenges. However, generating high resolution, accurate geospatial information in the hilly terrain is still an arduous work.

Under KSLCDI several geospatial layers have been generated for the KSL-India, which includes most of Pithoragarh district (96%) and part of Bageshwar (4%). These geospatial layers can be used in planning at different levels (i.e., Gram Panchayat, Block and District) as follows:



Figure: Resource map at village (Bans-Maitoli) level

i) Village/Gram Panchayat/ Watershed level maps

S.no.	Geospatial maps generated	Information available and its possible application
1.	High resolution (1:10000m) resource map at village level (eg., Bans-Maitoli and Gram Panchayats of Chandak-Aunlaghat and Hat-Kalika watershed)	Detailed information of various natural resources (eg., Agriculture, forest and Grassland) These maps can be used in managing forests, plantation of fodder species, grazing pastures and in monitoring of the problem species, such as spread of invasive species and their strategic eradication.
2.	High resolution resource map and land use/land cover maps of Chandak-Aunlaghat, Hat-Kalika and Himkhola watersheds	Information is generated at two levels (i) broad LULC (eg., Forest, Grassland, Agriculture, Scrubland, Habitation, Waterbody) and (ii) at species level (eg., Banj oak, Chir pine, Sal, Blue pine, Deodar, Lauraceous mixed, Grassland, Scrubland, Settlement). Maps Can be used in watershed level developmental planning.
3.	#Human-Wildlife conflict zone in lower part of KSL-India	High, medium and low human-wildlife conflict zone have been identified and marked. Can be used in developing mitigation strategies, and awareness programmes in high conflict areas.
4.	*Information on natural springs (Naula and Dhara) in Chandak-Aunlaghat and Hat-Kalika watersheds	Locations of various naula-dhara and their discharge has been recorded. Information can be used for management and monitoring of natural springs.

Prepared by Wildlife Institute of India (WII), * GB Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD) and others by Uttarakhand Space Application Centre (USAC), Dehradun

ii) Landscape level (KSL-India) maps

S.no.	Geospatial maps generated	Information available and its possible application
1.	Land use/Land cover map	Information generated at 7 broad LULC categories (eg., Forest, Grassland, Agriculture, Scrubland, Habitation, Waterbody, Snow-Glaciers) Map can be used for landscape level planning
2.	Drainage map	Rivers, Drains and Streams have been marked in the landscape. Maps can be prepared to depict number of drains and streams at Gram Panchayat, Watershed level
3.	Road network	Marked National, State highways, District and village road Map can be used to see the easiest connectivity and alternate routes during disaster and for other developmental planning
4.	Vegetation map (Physiognomic level)	Map with 12 major vegetation types (physiognomic) and 5 other non-vegetation classes have prepared Map can be used for monitoring of major vegetation types (broadleaved, conifer, scrubland, grassland) at landscape level
5.	Vegetation map (species/community level)	Vegetation map with 13 tree species, 5 scrub species, 4 grass species and 5 non-vegetation classes have been prepared Map can be used for species level monitoring and management
6.	Land use/Land cover change analysis map (1976, 1999, 2011)	Change analysis maps across major LULC classes (eg., Forest, Agriculture, Habitation) have been prepared since 1976 to 2011 These maps can be used to observe the changing trends across major LULC classes and develop management plans
7.	Spatial distribution of Banj oak (<i>Quercus leucotrichophora</i>)	Geospatial distribution of Banj oak (key fodder species) forests in the KSL-India Information can be used for effective monitoring and management of the species in the landscape
8.	Distribution of Yarsha Gambu (<i>Cordyceps sinensis</i>) in KSL-India	Distribution (highly suitable and suitable area) of Yarsha Gambu production map with distribution of >180 villages in the surroundings Maps can help, understanding the distribution pattern of Yarsha Gambu and organizing awareness programmes for communities
9.	#Distribution of Chyura (<i>Diploknema butyracea</i>) in KSL-India	Spatial distribution of Chyura (Indian butter tree) with different density/hectare Maps can help to understand the distribution and availability of species and scope for plantations.
10.	Distribution of Invasive (<i>Lantana camera</i> , # <i>Eupatorium adenophorum</i>) species	Maps on distribution of invasive species in the landscape have prepared These maps can help in understanding the high proliferation sites and also in developing management strategies
11.	Current distribution of landslides in KSL-India	Current landslide areas marked along with the villages affected in the landscape
12.	Landslide probability map	With the help of various models landslide probability zones and safety zones have been marked Maps can help developing landslide management strategies

Prepared by Wildlife Institute of India (WII), and others by Uttarakhand Space Application Centre (USAC), Dehradun

iii) Location based maps of KSL-India

S.no.	Geospatial maps generated	Use/Application
1.	Cultural zone map of KSL-India	Distribution of 8 major cultural groups in 5 major river valleys Kali, Dhauli, Gori, Ramganga and Saryu has been depicted
2.	Fair and Festival sites	8-10 major traditional fair and festivals sites marked
3.	Sacred Natural Sites (SNS)	About 140 small and large Sacred Natural Sites recorded
4.	Pulses and Vegetables rich areas	> 97 crops (cereals-08, millets-06, pulses-15, oilseeds-11, vegetables-28, spices and condiments-10, fruits-19) are being cultivated in the landscape. MAjor area have been recorded.
5.	Rivers, Lakes and Glaciers	6 major rivers, 8-10 lakes, and more than 300 (small & large) glaciers are present in Ksl-India
6.	Spots for Adventure Tourism	There are more than 25 sites for adventure activities viz., Mountaineering, Trekking, Glacier expedition, Rock climbing, River rafting, Paragliding, Forest walk etc.
7.	Alpine meadows (bugyals)	About 30 small and large bugyals are present
8.	Biodiversity rich areas	In the landscape 15-18 major Biodiversity rich areas (eg., Thalkedar, Dhvaj, Gangolihat-Patalbhuwaneshwar, Sandev, Ghandhura, Gori valley, Chiplakedar, Napalchu nala, Ralam etc.)have been depicted

Prepared by Uttarakhand Space Application Centre (USAC), Dehradun

Maximizing the value of geospatial information

Although the geospatial information is increasingly being used in planning by some of the Government offices, NGOs and other stakeholders, but more capacity building is needed to scale up existing initiatives. It is high time to identify potential users and make them aware about the benefits of geospatial information for developmental planning, effective measuring, monitor and mitigate challenges.

The paradigm of geospatial information is changing; no longer it is used just for mapping and visualization, but also for integrating with other data sources, data analytics, modelling and policy making. This understanding needs to reach diverse stakeholders at planning-practice-policy levels. Government departments need to see geospatial information for its 'value', not for where it has come from or who owns it. Geospatial information also needs to be treated as an essential component in decision making processes, not just as a commodity that can be sold. The information thus generated under KSLCDI can be gainfully utilized for developmental planning in the landscape (i.e. district of Pithoragarh) at different spatial scales.

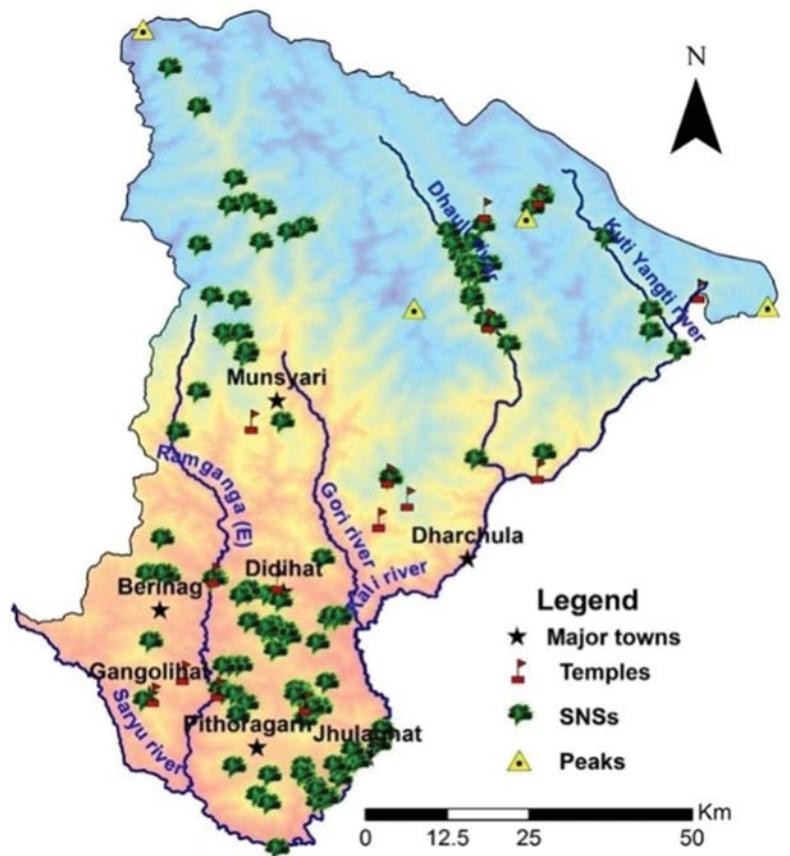


Fig.: Sacred Natural Sites (SNS) of KSL, India

जौहार की बदलती परिस्थितियां

हर वर्ष की तरह इस वर्ष भी पवित्र कैलाश भू क्षेत्र की यात्रा में सम्मिलित होने का अवसर मिला और मैं अपने साथियों के साथ निकल पड़ी 'जौहार' यानी मिलम की ओर। यात्रा से पूर्व मन में गंतव्य को लेकर कई विचार उठ रहे थे क्योंकि सुना था बाकी घाटियों के मुकाबले मिलम का सफर थोड़ा मुश्किल है। गाड़ी में बैठते ही ड्राइवर भाई ने पहाड़ी गाने चला दिए बाहर के नजारे देखने के लिए खिड़की से गर्दन बाहर निकाली, हल्की हल्की बारिश की बूंदें पड़ रही थी, और सौंधी सौंधी मिट्टी की खुशबू आ रही थी। गाड़ी से पेड़ चलते हुए प्रतीत हो रहे थे अब मन में जौहार की कुछ तस्वीरें बनने लगीं थी। पत्थरों से बने घरों की तस्वीर, खेतों में हल चलाते व्यक्तियों की तस्वीर, गाने गाती, झूमती, नाचती महिलाओं और बच्चों की तस्वीरें, फसलों से भरे खेतों की तस्वीर इन तस्वीरों में खोई ही थी कि अचानक गाड़ी रूकी और तस्वीरें कहीं धूमिल सी हो गयी। खैर अब चाय पीने के लिए हम सभी गाड़ी से बाहर आये सामने चाय की एक छोटी सी दुकान थी एक बुजुर्ग चूल्हे के पास बैठे चाय बना रहे थे वहीं पास में बैठी दादी अपनी पोती को गोद में बिठाके कुछ खेल खिला रही थी। चाय में आग का स्वाद आ रहा था मेरे एक साथी ने तो दो गिलास चाय पी ली थी। अब गाड़ी पुनः चलने लगी और थोड़ी ही देर बाद हम मुनस्यारी पहुंच गये। अपना सामान एक परिचित होटल में रखने के बाद हम बाजार की सैर पर निकल पड़े सोचा लोगों से थोड़ी मिलम के बारे में जानकारी जुटा ली जाये। इसीलिए हम एक दुकान में जा पहुंचे एक भाईसाहब कुर्सी में बैठे हुए कुछ हिसाब कर रहे थे। हमें देखते ही उन्होंने कुर्सी पीछे की, और खड़े हो गए फिर एक दूसरे को नमस्कार करने के बाद हमारे एक साथी ने जानकारी लेनी शुरू की और बाकि लोग सामान खरीदने लगे जैसे चाकलेट, टॉफी, बिस्कुट, सूप, मैगी, आदि। दरअसल उच्च हिमालयी क्षेत्रों में अक्सर इन चीजों की आवश्यकता पड़ती है और चलते चलते भूख भी तो लगती है। अब रात होने लगी थी तो हम सब वापस होटल की ओर चले गए, तब तक होटल में खाना भी तैयार था। अब हम सब खाने के लिए नीचे हॉल में बैठ गए। रोटी का एक निवाला मुंह में डाला ही था की नजर दीवार पर टंगी मिलम ग्लेशियर की तस्वीर पर पड़ी, यूं तो आने से पहले इन्टरनेट में मिलम की काफी तस्वीरें देखी थी पर इस तस्वीर की बात ही कुछ और थी। यूं लग रहा था की मैं ग्लेशियर के सामने ही खड़ी हूं इसी उत्साह में एक रोटी अधिक खा चुकी थी। कल के सफर की परिचर्चा करने के बाद सब अपने कमरों में जाकर सो गए अगले दिन सुबह 6 बजे बिना किसी अलार्म के ही नींद खुल गई थी आज कई दिनों बाद इतना तरो-ताजा महसूस हो रहा था। रोशनी के लिए खिड़की से पर्दा हटाया तो सामने पंचाचूली की सफेद चोटिया सिर पर हल्के लाल रंग की चादर ओढ़े दिख रही थी। सोचिए ठण्ड का मौसम, हाथ में अदरक वाली चाय का ग्लास और सामने बर्फ से ढकी सफेद चोटिया कितना मनोहारी दृश्य रहा होगा। फिर नाश्ता करने के बाद हम सभी साथी अपने अपने सामान के साथ होटल से बाहर आ गए और गाड़ी का इन्तजार करने लगे। एक दो घंटे इन्तजार करने के बाद गाड़ी मिली, गाड़ी भी क्या कहें यूटिलिटी मिली जिसमें केवल 4 लोगों के बैठने की जगह थी और हम 8 लोग थे। फिर क्या, मैंने और मेरे साथियों ने सोचा कि क्यों न सफर को थोड़ा रोमांचक बनाया जाये तो हम जा बैठे पीछे सामान के साथ। शुरू-शुरू में तो आनंद आ रहा था पर ज्यों ज्यों आगे बढ़े गाड़ी हिचकोले खाने लगी और साथ में कभी हम ऊपर तो कभी बैग हमारे ऊपर; जैसे तैसे हम धापा बैंड पहुंचे जहां से हमारी पद यात्रा शुरू होनी थी। आगे लगभग 3 किलोमीटर तक के रास्ते में हमें नीचे उतरना था। नीचे उतरते उतरते रास्तों में कभी मिश्रित जंगल दिखाई पड़ते तो कहीं मैदान अब थोड़ा थकान लगने लगी थी पर किसी भी हालत में शाम होने से पहले लीलम पहुंचना था। हिम्मत करके आगे बढ़ते रहे और आखिरकार हम पहुंच गए लीलम। एक रात्रि विश्राम के बाद अगले दिन हम निकल पड़े बोग्दयार की तरफ। बोग्दयार के सफर में काफी उतार चढ़ाव थे रास्तों में कहीं चरवाहे अपने बकरियों के झुण्ड के साथ दिखते तो कहीं घास के हरे भरे मैदान। इन नजारों का आनंद

लेते हुए हम पहुंच गए बोगदयार। सब कुछ तो ठीक था पर जो तस्वीरें अभी भी मेरे मस्तिष्क के किसी कोने में उछल कूद मचा रही थी उनके साकार दर्शन नहीं हुए। सोचा शायद वो कल अवश्य ही दिखने लगेंगी। इसी चाह में हम निकल पड़े बोगदयार से रिलकोट की ओर फिर अगले दिन रिलकोट से बुर्फू होते हुए पहुंच गए मिलम।

मिलम पहुंचते ही एक अलग ही अनुभव हुआ। कमरे में पहुंचते ही हम सब ने बैग एक साइड रखे और हाथ मुंह धोने बाहर निकल गए। जैसे ही पानी हाथ में डाला यूं लगा कि मानो हाथ सुन्न पड़ गए हों। पर अच्छा भी लग रहा था, एक नया अनुभव जो था। फिर थोड़ी देर आग सेंकने के बाद मैं निकल पड़ी अपनी तस्वीरों को खोजने। थोड़ा आगे बड़ी तो देखा एक अम्मा, तकरीबन 65 से 70 की उम्र होगी, छोटा सा कद, धोती लपेटे हुए सिर में ऊनी स्कार्फ पहने, हाथ में एक कुदाल लिए कुछ खोद रही थी। सोचा क्यों न शुरूआत उनसे ही की जाये। बड़ा ही शांत माहौल था दूर मिलम ग्लेशियर से निकलती गोरी नदी की हल्की-हल्की आवाज आ रही थी वही दूसरी तरफ मद्धम मद्धम चलती हवा ठण्ड का एहसास करा रही थी। मैं अम्मा के पास जाकर बैठ गयी। मैंने अपना परिचय दिया तो उन्होंने मुस्कराहट भरी नजरों से मुझे देखा और फिर आलू खोदने लगी। एक ओर मस्तिष्क के कोने से तस्वीरें शोर मचा रही थी वहीं दूसरी ओर अम्मा का यह स्वभाव कुछ समझ नहीं आ रहा था। खामोशी बढ़ती ही जा रही थी मैंने सोचा कहीं ऐसा तो नहीं कि उन्हें हिंदी न समझ आ रही हो। फिर सोचा कि चलो पहाड़ी में ही पूछ के देखती हूं। थोड़ा लड़खड़ाते कोशिश करने के बाद एक लाइन पहाड़ी में बोल ही दी और अम्मा की हंसी छूट पड़ी। इस हंसी से माहौल थोड़ा हल्का होने लगा। खामोशियां भी टूटने लगी और बातचीत शुरू हुई। इससे पहले कि मैं कुछ बोलती अम्मा बोल पड़ी कस छी चेली तू कां बटी ए री छी, कब पुजछे। लगा कि जैसे अम्मा मेरी पहले से परिचित थी। फिर अम्मा से काफी देर बात हुई, उनकी हर एक बात में एक भाव था, चेहरे की हर एक झुर्री से अनुभव झलक रहा था, जाने कितनी ही बातें थीं जो वो बताना चाह रही थीं और मैं सुनना। वैसे आपको बता दूं कि जौहार घाटी के शौका जौहारी शौकाओं के नाम से जाने जाते हैं। यह उत्तराखण्ड में पायें जाने वाली उन कुछ जनजातियों में से है जो कि अपनी सांस्कृतिक रूप से समृद्ध विशेषताओं के लिए जाने जाते हैं। आम शौका उपनामों में धर्मसत्तू, पांगती, टोलिया, मार्तोलिया, बुर्फवाल और रावत आदि मुख्यतः आते हैं। यह हिन्दू धर्म के अनुयायी होते हैं और मां नंदा को मुख्य देवी के रूप में पूजते हैं। हमारी बातें अब पुराने समय की ओर मुड़ चुकी थीं, अब एक अलग ही उत्साह मन में था। पहले मिलम अपने प्रसिद्ध ट्रेड रूट के लिए जाना जाता था और तिब्बत के व्यापारी यहां पर कीमती पत्थर, पशमीना ऊन तथा नमक बेचने आया करते और यहां के लोग चावल, चीनी, गुड़, कपड़े आदि बेचने अपने खच्चरों के कारवां के साथ हंसते गाते तिब्बत जाते। महिलायें भी कभी कभी इस कारवां में शामिल होती ताकि तिब्बत जाके वो पवित्र कैलाश, जो की भगवान शिव का निवास स्थान माना जाता है, के दर्शन कर सकें। शौका महिलायें सुंदर कालीन, शाल, कपड़े तथा कम्बल बिना करती थीं, धीरे-धीरे सिलाई बुनाई का यह काम मुनाफे वाले कुटीर उद्योग के रूप में उभरने लगा। इस समुदाय के लोग समृद्ध और सुसंस्कृत थे, साथ ही में लोग बहुमूल्य जड़ी बूटियों का भी व्यापार किया करते थे। जो एक चीज ध्यान देने की थी वो ये कि जड़ी बूटियों का संग्रह उस समय किया जाता था जब उनके बीज जमीन में अच्छे से जम जाते। इससे प्रकृति संरक्षण के प्रति उनका लगाव देखने को मिलता है। अम्मा की इन सभी बातों से एहसास हो रहा था कि वो समय कितना खूबसूरत रहा होगा जहां न अन्न की कोई कमी थी न धन का ही कोई अभाव। सुख और समृद्धि से भरा था पूरा गांव। अरे यह तो मेरी तस्वीरों जैसा ही था सब कुछ वही। हंसते गाते लोग, लहलहाते खेत, आदि। अम्मा की बातें सुनके यूं लगा कि सब कुछ प्रत्यक्ष रूप से मेरे आंखों के सामने चल रहा था। फिर अचानक सीटी की आवाज से मेरा ध्यान टूटा। सामने आईटीबीपी के जवानों की प्रतियोगिता चल रही थी। अम्मा भी काफी भावुक हो चुकी थी, क्योंकि जौहार की जो तस्वीर पहले हुआ करती थी बॉर्डर के बंद होने के बाद वह बदल चुकी थी। जब दोनों देशों को जोड़ने वाला व्यापार समाप्त हो गया, जानवरों के विशाल झुण्ड जो एक समय

प्राथमिक संपत्ति के रूप में माने जाते थे वो अब किसी काम के नहीं रहे थे। तिब्बत से आने वाली ऊन अब आना बंद हो चुकी थी तो बुनाई और कढ़ाई के कुटीर उद्योगों में भी ठहराव आ गया था, और शौका समुदाय के लोग जीवन यापन के लिए संघर्ष करने लगे।

वे अपने पारंपरिक घरों को छोड़ नौकरी की तलाश में नीचे घाटियों/मैदानों में चले गए, या मुनस्यारी जाकर बस गए। ऊपर केवल वही लोग रह गए जिन्होंने वहीं रहना स्वीकार किया, और जो आज भी अपनी मिट्टी से जुड़े हैं। मिलम, जहां एक समय 500 परिवार रहा करते थे आज वहां कुछ ही परिवार रह गए हैं, जिनमें भी केवल बड़े बुजुर्ग ही हैं। उनमें से एक थी अम्मा जिसने तब से अब तक का अच्छा बुरा सारा समय देखा है।

यदि पुराने समय से अब की तुलना करें तो अब 'जौहार' की एक नयी ही कहानी है। घर जो कभी लोगों से भरे रहते थे अब लगभग खाली पड़े हैं। नन्दाष्टमी के समय या फिर कीड़ाजड़ी के मौसम में ही अधिकतर लोग यहां दिखाई पड़ते हैं।

अंत में यह एहसास हुआ कि 'जौहार' की जिन तस्वीरों की कल्पना मैंने की थी वो सब सत्य थीं, पर सिर्फ अम्मा की बातों में; आज नहीं।

—रेनू सुयाल
वरिष्ठ शोधार्थी व एक यात्री

भू-क्षेत्र यात्रा—हकीकत जानने की ओर

यात्रा मानव जीवन का एक अभिन्न पहलू है। यद्यपि यात्रा का प्रयोजन व परिपेक्ष बदलता रहता है। 'कैलाश परियोजना' के तहत यात्रा को भू-क्षेत्र संरक्षण व विकास के सन्दर्भ में एक वृहद परिपेक्ष में देखने समझने व संचालित करने का सफल प्रयास परियोजना के भारतीय सहयोगियों द्वारा किया गया। जहां एक ओर ये यात्राएँ दूरस्थ इलाकों में रह रहे लोगों से जुड़ने उनसे संवाद स्थापित कर उनकी परिस्थितियों को समझने में सहायक हुई, वहीं दूसरी ओर ये साधन बनी भू-क्षेत्र की बदलती पारिस्थितिकी व समाजिकी को जानने की। तेजी से बदल रही मानव अभिलाषा, तदनुसार बदलता ग्रामीण परिवेश और बढ़ते 'भूतहा' गाँव इन सभी की हकीकत से परिचय कराया यात्राओं ने। भू-क्षेत्र में संरक्षण व विकास के अनछुए पहलुओं, सम्भावनाओं व चुनौतियों से भी रूबरू कराया इन यात्राओं ने। यात्राओं में बहुविषयक जानकारी रखने वाले यात्रियों की भागीदारी, यात्रियों का सरल खान-पान व प्रचलित ताम-झाँम से दूरी, व मिलजुल कर रहने की अनिवार्यता स्वतः ही इन यात्राओं को सरल पहाड़ी समुदायों में स्वीकार्यता दे गई। परिणामों के दूरगामी प्रभावों को समझते हुये 'कैलाश परियोजना' भू-क्षेत्र यात्राओं को संरक्षण व विकास के वृहद परिपेक्ष में और अधिक सशक्तता के साथ उपयोग करने की प्रबल संभावना दिखाती है।

आर. एस. रावल
नोडल वैज्ञानिक, कैलाश परियोजना

बचपन की यादें

कोई लौटा दे वो मेरे प्यारे प्यारे दिन
जहाँ था माँ का आँचल
जिस में लिपट के हम अपने दर्द भूल जाते थे
जहा पापा की जेब हुआ करती थी
अपनी ख्वाहिशें पूरी हुआ करती थी
बड़े भाई की उंगली हुआ करती थी
जो सही राह दिखाया करती थी
छोटे भैया का साथ, अपना बचपन याद दिलाया करता था
ना जाने कहाँ खो गये वो दिन
कोई लौटा दे वो मेरे प्यारे प्यारे दिन
माँ का वो लॉडो कहना, पापा का बेटा पुकारना
बड़े भाई का बहनी कहना, छोटे भाई का वो दी कहना
सारे दर्द भुला दिया करता था
ना जाने कहाँ खो गये वो दिन
कोई लौटा दे वो मेरे प्यारे प्यारे दिन
साथ बैठ के वो एक दूसरों की थाली से
माँ के हाथो का गरमा गरम बना खाना खाना
माँ पापा से वो बचपन के किस्से सुनना
गलती करने पर वो बड़े भाई का सहारा लेना
माँ पापा की डाँट से उसका बचा लेना
छोटी छोटी बातो पर भाई— बहन का आपस में लड़ना
और माँ पापा के आगे सीधा साधा सा बन जाना
गलती करने पर बड़े भाई का समझाना
और माँ पापा तक बात न पहुचने देना
पापा के ऑफिस से आने पर उनसे लिपट जाना
दिन भर की उनकी कमी को भुला देता था
अब ये सब एहसास मन में ही सिमट गए है
ना वो दिन रहे ना वो बाते रही
आज मन है अशांत, कान है सूने
आँखों में रह गयी है नमी
ना जाने कहाँ खो गये वो दिन
कोई लौटा दे वो मेरे प्यारे प्यारे दिन
कोई लौटा दे वो मेरे प्यारे प्यारे दिन

—अंजली बरोला
शोधार्थी



मार्गदर्शन GUIDANCE

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,
भारत सरकार

Ministry of Environment, Forest & Climate
Change (MoEF&CC), Government of India

सत्यमेव जयते

सहयोग व वित्तपोषण FACILITATION AND FUNDING

ICIMOD



भारतीय सहयोगी

INDIAN PARTNERS



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

भारतीय वन्य जीव संस्थान
Wildlife Institute of India
(WII)



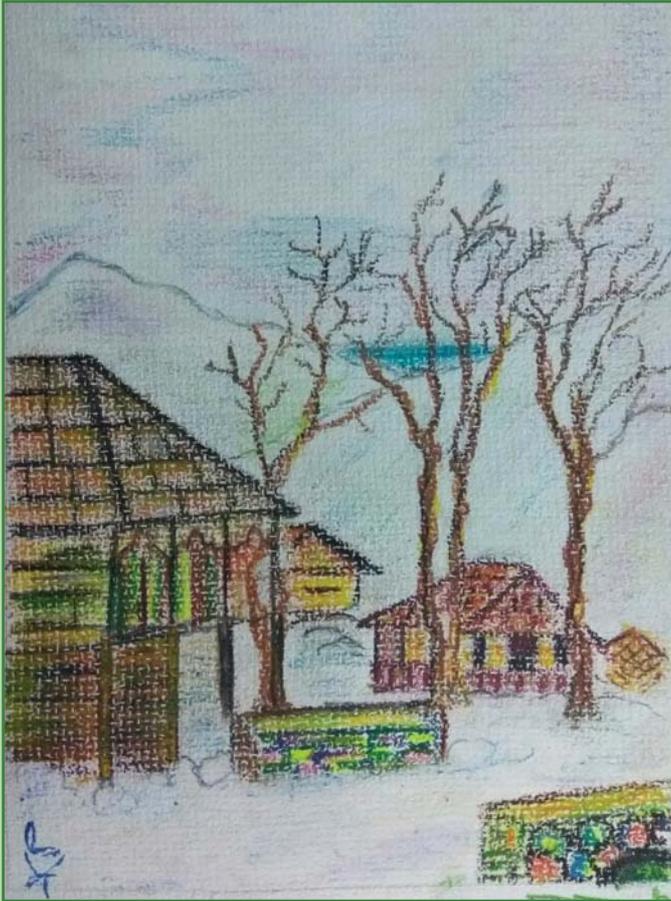
उत्तराखण्ड वन विभाग
Uttarakhand Forest Department
(UKFD)



उत्तराखण्ड जैवविविधता बोर्ड
Uttarakhand Biodiversity Board
(UKBB)



संन्दल हिमालयन इन्वार्चनमेन्ट एसोसिएशन
Central Himalayan Environment
Association (CHEA)



संयोजक संस्थान

गोविन्द बल्लभ पन्त राष्ट्रीय हिमालयी पर्यावरण एवं सतत विकास संस्थान की स्थापना सन् 1988-89 में पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार के स्वायत्तशासी संस्थान के रूप में की गई। यह संस्थान सम्पूर्ण भारतीय हिमालय क्षेत्र में वैज्ञानिक ज्ञान को बढ़ावा देने, एकीकृत प्रबन्धन रणनीति बनाने व उनके प्राकृतिक संसाधनों के संरक्षण में प्रभाविता के प्रदर्शन, और पर्यावरणीय दृष्टि से मजबूत प्रबन्धन हेतु मुख्य संस्थान के रूप में चिन्हित है।

Coordinating Institute

G.B. Pant National Institute of Himalayan Environment and Sustainable Development was established in 1988-89 as an Autonomous Institute of the Ministry of Environment Forest & Climate Change (MoEF&CC), Government of India. The Institute has been identified as focal agency to advance scientific knowledge, evolve integrated management strategies, demonstrate their efficacy or conservation of natural resources, and ensure environmentally sound management in the entire Indian Himalayan Region (IHR).



गोविन्द बल्लभ पंत राष्ट्रीय हिमालयी पर्यावरण एवं सतत विकास संस्थान

G.B. Pant National Institute of Himalayan Environment & Sustainable Development

An Autonomous Institute of Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India

Kosi-Katarmal, Almora 263 643, Uttarakhand, INDIA

Web: <http://gbpihed.gov.in> | Phone: +91-5962-241015

For further details, please contact:

Dr. Pitamber P. Dhyani, Director, Lead Project Coordinator – KSLCDI, India (psdir@gbpihed.nic.in)

Dr. Ranbeer S. Rawal, Scientist - F, Nodal Person – KSLCDI, India (ranbeerrawal4@gmail.com)