



Centre for
Public Policy and
Good Governance
Government of Uttarakhand



AGRAGĀMI

SDG Goalkeepers 2021 | Stories from Uttarakhand



Copyright © 2022 Centre for Public Policy & Good Governance

All Rights Reserved

This book or parts thereof may not be reproduced in any form, stored in any retrieval system, or transmitted in any form by any means - electronic, mechanical, photocopy, recording, or otherwise - without prior written permission of the publisher, except as provided by Government of India copyright law and fair use. For permission requests, please contact the publisher.

ISBN

978-93-5768-471-2

Disclaimer

The content and claims herein have been self-declared by all awardees. The publisher and the editors assume no responsibility for errors, inaccuracies, omissions, or any other inconsistencies herein. The content of this book is for informational purposes only. The use of this book implies your acceptance of this disclaimer.

CPPGG

Dr. R. Meenakshi Sundaram
Dr. Manoj Kumar Pant
Sharon Mary Jacob
Uttara Rana
Paridhi Kapoor

Production & Printing

Print Line Printers, Dehradun

Project Sponsor

Centre for Public Policy & Good Governance,
Government of Uttarakhand
<https://cppgg.uk.gov.in/>

Supported by

United Nations Development Programme

Editor

Dhriti Dhaundiyal

Concept & Design Direction

Dhriti Dhaundiyal

Field Documentation & Research

Dhriti Dhaundiyal
Bhumika Benjwal
Monika Dangwal

Text & Photographs

Bhumika Benjwal
Monika Dangwal
Individual Awardees

Layout & Illustration

Bhumika Benjwal
Monika Dangwal



This book is dedicated to the people of Uttarakhand,
who find strength in communities, and persevere towards a sustainable
future in their small piece of heaven on earth.







i ð j fl g /keh
Eh; eah



संदेश

राज्य सरकार, सतत् विकास लक्ष्यों (Sustainable Development Goals) के अन्तर्गत वर्ष 2030 तक आर्थिक, सामाजिक एवं पर्यावरणीय संवहनीयता बनाये रखने हेतु गरीबी को समाप्त करने, समृद्धि प्राप्त करने एवं न्यायपूर्ण सुरक्षित व्यवस्था बनाये रखने हेतु प्रतिबद्ध है।

विकास लक्ष्यों को प्राप्त करने हेतु राज्य सरकार द्वारा गंभीर प्रयास किये जा रहे हैं। सतत् विकास लक्ष्यों को राज्य एवं केन्द्र की योजनाओं के साथ जोड़ने के साथ-साथ प्रभावी अनुश्रवण की व्यवस्था की गयी है, जिसके परिणाम स्वरूप सतत् विकास लक्ष्यों के क्रियान्वयन में उत्तरोत्तर प्रगति देखी जा रही है, जो नीति आयोग द्वारा प्रकाशित राष्ट्रीय स्तर की रिपोर्ट में प्रतिलिखित होता है।

सतत् विकास के महत्वाकांक्षी कार्यक्रम को देखते हुये इसमें सभी हितधारकों का जुड़ाव आवश्यक है। इसी क्रम में सी0पी0पी0जी0जी0, नियोजन विभाग द्वारा एक अभिनव पहल करते हुये राज्य में एस.डी.जी. को प्राप्त करने में महत्वपूर्ण योगदान करने वाले व्यक्तियों एवं संस्थाओं द्वारा आजीविका सृजन, गरीबी उन्मूलन, शिक्षा की गुणवत्ता उन्नयन, जल स्रोतों का संवर्धन, पर्यावरणीय संवहनीयता, महिला सशक्तिकरण जैसे क्षेत्रों में किये जा रहे नवाचारों को सम्मानित करने के उद्देश्य से "एस.डी.जी. गोलकीपर" पुरस्कार प्रदान किये हैं। उपरोक्त क्षेत्रों में सराहनीय कार्य कर रहे 12 व्यक्तियों तथा 15 संस्थाओं को दिनांक 10 जून, 2022 को "एस.डी.जी. गोलकीपर" पुरस्कार प्रदान किया गया।

सी0पी0पी0जी0जी0, नियोजन विभाग तथा UNDP के सहयोग से "एस.डी.जी. गोलकीपरों" द्वारा किये जा रहे नवाचारों, विशेष प्रयासों का दस्तावेजीकरण का कार्य एक महत्वपूर्ण एवं सराहनीय कदम है, इससे न केवल राज्य के अन्य क्षेत्रों में इन कार्यों का विस्तारीकरण होगा, बल्कि अन्य लोगों को प्रेरणा देने के साथ देश के अन्य राज्यों हेतु भी लाभप्रद होगा।

सी0पी0पी0जी0जी0, नियोजन विभाग तथा UNDP द्वारा प्रकाशित रिपोर्ट एक प्रशंसनीय प्रयास है। इस कार्य में लगे समस्त लोग बधाई के पात्र हैं।

i ð j fl g /keh
Eh; eah

mÿj k k M1 fpoky ;]
ngj knw&248001
njyHk1%0135&2650433
0135&2716262
QSI %0135&2712827
dE dk kZ;
njyHk1%0135&2750033
0135&2750344
QSI %0135&2752144



Dr. Sukhbir Singh Sandhu
Chief Secretary



Uttarakhand Government
Netaji Subhash Chandra Bose,
Building Uttarakhand Secretariat
4, Subhash Road, Dehradun
Telephone% 0135-2712100
0135-2712200
(Fax)0135-2712500
Email: cs-uttarakhand@nic.in

Message

The supremely ambitious agenda of Sustainable Development Goals (SDGs) requires intensive and broader participation of all the stakeholders including governments, civil society, NGOs, corporates, communities, and citizens. Thus, the “Whole of the society approach” becomes a mantra for achieving Sustainable Development Goals (SDGs) in a timebound manner.

The State has been trying to bring all stakeholders together. In its continued endeavor, 27 individuals and organizations were awarded by the hon’ble Chief Minister, Uttarakhand as “SDG Goalkeepers” on 10th June 2022. These individuals and organizations have been doing remarkable work in areas of quality education, disaster, enhancing the livelihood, health care, water conservation, sanitation, green economy, women empowerment, and other sectors.

I am delighted to know that the Centre for Public Policy & Good Governance (CPPGG) and UNDP have jointly documented the stories of transformative actions being accomplished by the SDG Goalkeepers.

I would like to mention my appreciation for Sh. R. Meenakshi Sundaram, Secretary, Planning, and his team for bringing out this important document. This will certainly keep motivating the changemakers to ensure inclusive development of the State. These efforts must be continued to recognize the innovation and best practices being done by various stakeholders.

Dr. Sukhbir Singh Sandhu



Dr. R. Meenakshi Sundaram
IAS (Secretary, Planning)



**Planning Department,
2nd Floor Vishwakarma Bhavan,
Uttarakhand Secretariat,
4-Subhash Road, Dehradun,
Uttarakhand**

Preface

Sustainable Development Goals (SDGs) require equitable engagement from not just government institutions but also local-level organizations and individuals working at the grassroots levels. When people work toward social, economic, and environmental change a sustainable future becomes an achievable reality. Encompassing all the key development sectors, a multitude of self-motivated, innovative, and inspiring organizations and individuals across the State act as stakeholders, ensuring the localization of Agenda 2030.

Centre for Public Policy and Good Governance (CPPGG) in collaboration with the United Nations Development Program (UNDP) have identified inspiring changemakers of Uttarakhand and recognized them as SDG Goalkeepers. The vision behind the SDG Goalkeeper Awards was not just to appreciate their efforts but also to promote a sense of cooperation and develop relations to encourage the formation of a collaborative support system with these goalkeepers to work towards sustainable development of the State.

The entire process of the Goalkeepers award has been stringent and transparent. Therefore, it took time and effort to selection of the SDG Goalkeepers that include a detailed field verification of their interventions.

I appreciate Dr. Manoj Kumar Pant, Addl. Chief Executive Officer, CPPGG and his team for their commendable work. I hope the publication will not only motivate SDG Goalkeepers but also inspire others to work for less there are several interventions that can be replicated for improving the quality of life of people.

Dr. R. Meenakshi Sudaram



Dr. Manoj Kumar Pant

Additional Chief Executive Officer



CPPGG, Planning Dept.,
Vishwakarma Bhavan,
Uttarakhand Secretariat,
4-Subhash Road, Dehradun,
Uttarakhand

Acknowledgments

As far as the implementation of the SDGs is concerned, largely the state government has been a key stakeholder. However, the Agenda-2030 Sustainable Development is highly ambitious and cannot be achieved only by the efforts of the government. It must be a people's agenda and the contribution of all the stakeholders is a prerequisite. Therefore, the "whole of government approach" needs to be ensured not only for better outcomes but to ensure the optimum use of limited resources for sustainable development.

Guided by the above approach, CPPGG in collaboration with the UNDP has identified inspiring changemakers of Uttarakhand and recognized them as "SDG Goalkeepers". The vision behind the SDG Goalkeeper Awards was not just to praise their efforts but also to promote a sense of cooperation toward achieving the SDGs.

The process adopted for selected of Goalkeepers has been rigorous and transparent. CPPGG invited nominations from Individuals, Institutions, the Private sector, Academia, Civil Society Organizations, and Non-Government Organizations across the state. After the desk review, physical validation was conducted by a joint team from the Directorate of Economics and Statistics and CPPGG. A list of the shortlisted candidates was shared with the imminent Jury for final Selection. The jury conducted two rounds of interaction with the Goalkeepers for final selection. The 27 organizations and individuals were awarded a souvenir and a certificate by the Hon'ble Chief Minister, Uttarakhand.

I must mention my deep sense of appreciation for Sh. Ranjit Kumar Sinha, former Secretary, Planning for his support. I take this opportunity to thank Dr. R. Meenakshi Sundaram, Secretary (Planning), Government of Uttarakhand/CEO-CPPGG for providing constant guidance. I extend my sincere thanks to the imminent jury members Sh. N Ravishankar, Ex. Chief Secretary, Govt. of Uttarakhand, Prof. Surekha Dangwal, Vice Chancellor, Doon University, Dr. Sharad Singh Negi, Vice Chairman, Migration Commission, Uttarakhand, Ms. Shikha Ghildiyal, Development Practitioner, who provided their valuable time in finalization of the Goalkeepers.

I would like to acknowledge the support of Mr. Jaimon Uthup, Policy Specialist, UNDP New-Delhi and Dr. Pradeep Mehta, State Head UNDP, Uttarakhand.

I admire the tireless efforts made by the CPPGG team, especially Ms. Sharon Mary Jacob, who led the entire SDG Goalkeeper award event. I put my appreciation to Mr. Karunakar Singh, SDG Localization Expert, Mr. Ajay Purohit, MIS Expert, Mr. Kumar Rajesh, Public Policy Expert, Ms. Smriti Khera, Research Associate and Ms. Paridhi Kapoor, Research Associate for their support in field validation.

I would also like to acknowledge the diligent field documentation, data compilation and book design of the team from School of Design, Doon University, that was led by Ms. Dhriti Dhaundiyal, along with Ms. Bhumika Benjwal and Ms. Monika Dangwal.

I dedicate this document to all the stakeholders who have been at the forefront for testing innovations, adopting new models of development, and feeding the learning into better service delivery.



Dr. Manoj Kumar Pant

Editor's Note

We started work on the SDG Goalkeeper Awards 2021 in October of 2021, when we designed the first communication that went out to announce the nominations. Once the selection process of the jury was completed, the list of the awardees for field research and documentation was shared with us.

The task was challenging, to say the least, with the awardees spread far and wide across the state, some in the very interior. In collaboration with Sharon and Uttara at CPPGG, we drew up a schedule to plan the visits during the tricky monsoon season of Uttarakhand. Coordinating with 27 individuals and organisations across the state was not easy and due credit must be accorded to them for the time and effort spent in facilitating our visits and making them smoother.

Final year students of School of Design, Bhumika Benjwal and Monika Dangwal were selected for field documentation. They spent close to three months visiting each and every one of the awardees, sharing their success stories and seeing the world through their eyes. They brought back beautiful photographs and heartwarming stories of positive change at the very grassroots of our state. They also brought back some eye opening experiences of what the harsh field realities faced by people in our state are. These 27 Goalkeepers are just a drop in the ocean of the number of changemakers we need to truly meet the challenge of the Sustainable Development Goals.

Through 'Aragāmi', we are confident that we are able to not just tell the inspirational stories of these 27 goalkeepers, but also inspire a battalion of future goalkeepers.

We are thankful to Dr. R. Meenakshi Sundaram and Dr. Manoj Kumar Pant for entrusting us with this important task, for their faith in us, and for

guiding us through the project with its tight timelines. We were driven in this mammoth task by the constant encouragement of our Vice Chancellor, Prof. Surekha Dangwal who not only participated as a jury member but was also keenly interested in the field documentation. We remain grateful to our Registrar, Dr. Mangal Singh Mandrawal, for helping us navigate the logistics of completing this challenging task in a very short time.

This project has been a transformative experience for us. We feel like we have truly discovered our state in these last few months. It has been inspirational to see such motivated individuals and organisations working in the most difficult conditions and bringing change to those who are most in need. Telling their stories has been our privilege. While the challenges are many, we are filled with hope for a brighter, more sustainable future ahead! That leaves no one behind.

Dhriti Dhaundiyal
School of Design
Doon University



AGRAGĀMI

SDG Goalkeepers 2021 | Stories from Uttarakhand
Leading the Way

Sustainable Development Goals

17 Goals To Transform Our World



SDG 1 NO POVERTY

Aims to end poverty in all its manifestations by 2030 and ensure social protection for the poor and vulnerable, increase access to basic services and support people harmed by climate-related extreme events and other economic, social and environmental shocks and disasters



SDG 2 ZERO HUNGER

Aims to end hunger and all forms of malnutrition by 2030 and it also commits to universal access to safe, nutritious and sufficient food at all times of the year



SDG 3 GOOD HEALTH AND WELL-BEING

Aims to prevent needless suffering from preventable diseases and premature death by focusing on key targets that boost the health of a country's overall population. Regions with the highest burden of disease and neglected population groups and regions are priority areas



SDG 4 QUALITY EDUCATION

Aims at ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. This goal ensures that all girls and boys complete free primary and secondary schooling by 2030



SDG 5 GENDER EQUALITY

Aims to achieve gender equality by ending all forms of discrimination, violence and any harmful practices against women and girls in the public and private spheres. It also calls for the full participation of women and equal opportunities for leadership at all levels of political and economic decision-making



SDG 6 CLEAN WATER AND SANITATION

Aims to ensure universal access to safe and affordable drinking water, sanitation and hygiene, ending open defecation and improving water quality and water-use efficiency and to encourage sustainable abstractions and supply of freshwater



SDG 7 AFFORDABLE AND CLEAN ENERGY

Focuses on a concerted global effort to ensure access to affordable, reliable, sustainable and modern energy for all. Energy is interconnected with all of the other SDGs, and recognizing these linkages is important to effectively



SDG 8 DECENT WORK AND ECONOMIC GROWTH

Recognises the importance of sustained economic growth and high levels of economic productivity for the creation of well-paid quality jobs, as well as resource efficiency in consumption and production



SDG 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Calls for building resilient and sustainable infrastructure and promotes inclusive and sustainable industrialisation. It also recognises the importance of research and innovation for finding lasting solutions to social, economic and environmental challenges



SDG 10 REDUCED INEQUALITIES

Addresses inequalities within and among countries. It calls for nations to reduce inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion or economic or other status within a country



SDG 11 SUSTAINABLE CITIES AND COMMUNITIES

Aims to renew and plan cities and other human settlements in a way that offers opportunities for all, with access to basic services, energy, housing, transportation and green public spaces, while reducing resource use and environmental impact



SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Calls for a comprehensive set of actions from businesses, policy-makers, researchers and consumers to adapt to sustainable practices. It envisions sustainable production and consumption based on advanced technological capacity, resource efficiency and reduced global waste



SDG 13 CLIMATE ACTION

Seeks to implement the United Nations Framework Convention on Climate Change commitment to achieving a climate-neutral world by mid-century to limit global warming to well below 2°C - with an aim of 1.5°C - compared with preindustrial times



SDG 14 LIFE BELOW WATER

Aims to protect and ensure the sustainable use of oceans. This includes the reduction of marine pollution and the impacts of ocean acidification, the ending of overfishing and the conservation of marine and coastal areas and ecosystems



SDG 15 LIFE ON LAND

Focuses specifically on managing forests sustainably, halting and reversing land and natural habitat degradation, successfully combating desertification and stopping biodiversity loss



SDG 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Calls for peaceful and inclusive societies based on respect for human rights, protection of the most vulnerable, the rule of law and good governance at all levels. It also envisions transparent, effective and accountable institutions



SDG 17 PARTNERSHIPS FOR THE GOAL

Calls for a global partnership for sustainable development. The goal highlights the importance of global macroeconomic stability and the need to mobilise financial resources for developing countries from international sources, as well as through strengthened domestic capacities for revenue collection

Contents

Introduction

Uttarakhand SDG Goalkeeper Awards	3
The Process	4
Jury	6
Field Documentation	7



SDG 1

Kapil Talwar	11
Himalayan Action Research Centre	19

SDG 2

Hiteshi Sansthan	27
Bachi Singh Bisht	35

SDG 3

Uttarakhand Association for Positive People Living with HIV/AIDS	41
Sewa International	47

SDG 4

Aasraa Trust	55
Chandan Singh Ghughthyal	63
Joginder Rohilla	69

SDG 5

Indra Adhikari	75
Himgiri Natural Products Cooperative Society Limited	81

SDG 6

Himmotthan Society	87
Pan Himalayan Grassroots Development Foundation	95

SDG 7

KB Systems Private Limited	103
----------------------------	-----

SDG 8

Kailash Puspwan	109
Namita Tiwari	117
Parvatiya Chai Utpadan Swayat Sahkarita	123

SDG 9

Manmohan Bhardwaj	132
-------------------	-----

SDG 10

National Association for the Blind	137
------------------------------------	-----

SDG 12

Waste Warriors Society	145
------------------------	-----

SDG 13

Amit Kumar Jain	153
-----------------	-----

SDG 15

Dinesh Gururani	159
-----------------	-----

SDG 16

Rural Environmental and Education Development Society	165
Santosh Kumar Masiwal	171

SDG 17

The UMEED Network	177
Society for Himalayan Environment & Geology	185

YOUNG ACHIEVER

Siddharth Madhav	193
------------------	-----



Introduction

Leave No One Behind

Centre for Public Policy and Good Governance (CPPGG) instituted in 2017 under the aegis of the Department of Planning, Government of Uttarakhand, has the mandate to support the state in policy planning and governance reforms. CPPGG is designated as the nodal agency for the localization and monitoring of Sustainable Development Goals (SDGs) in Uttarakhand. The Centre formed a technical partnership with United Nations Development Program (UNDP) to provide the requisite momentum for State Government’s initiatives to implement and integrate the SDG Framework. A team of thematic experts for SDG localization, monitoring & evaluation, communication and capacity building, information management systems, and public policy are placed in CPPGG to catalyse the actions of the Uttarakhand government in rolling out the 2030 Agenda and in achieving the 17 goals by 2030.

Sustainable Development Goals, also known as the Global Goals, were agreed and adopted in September 2015 by 193 member states of the United Nations. The document titled ‘Transforming our World: 2030 Agenda for Sustainable Development’ is a universal call to action to end

poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. It consists of 17 Sustainable Development Goals and associated 169 targets. The four dimensions of SDGs are Social Equity; Inclusive economic growth; Protecting Environment; and Peaceful & inclusive societies. SDGs are universal, interconnected and indivisible and hence necessitate comprehensive and participatory approaches in bringing everybody together so that No One is Left Behind.

India is actively pursuing to achieve these ambitious goals and taking proactive steps at national and sub-national level towards adoption, implementation and monitoring of SDGs. To ensure the integration of SDGs, States have been recognized as the primary stakeholders to achieve Agenda 2030 in the country. In line with this agenda, the state of Uttarakhand has been making ardent efforts towards making transformative changes in the state. The State has thus emerged as a Front runner in various development aspects and has displayed great potential to be a role model for other states.

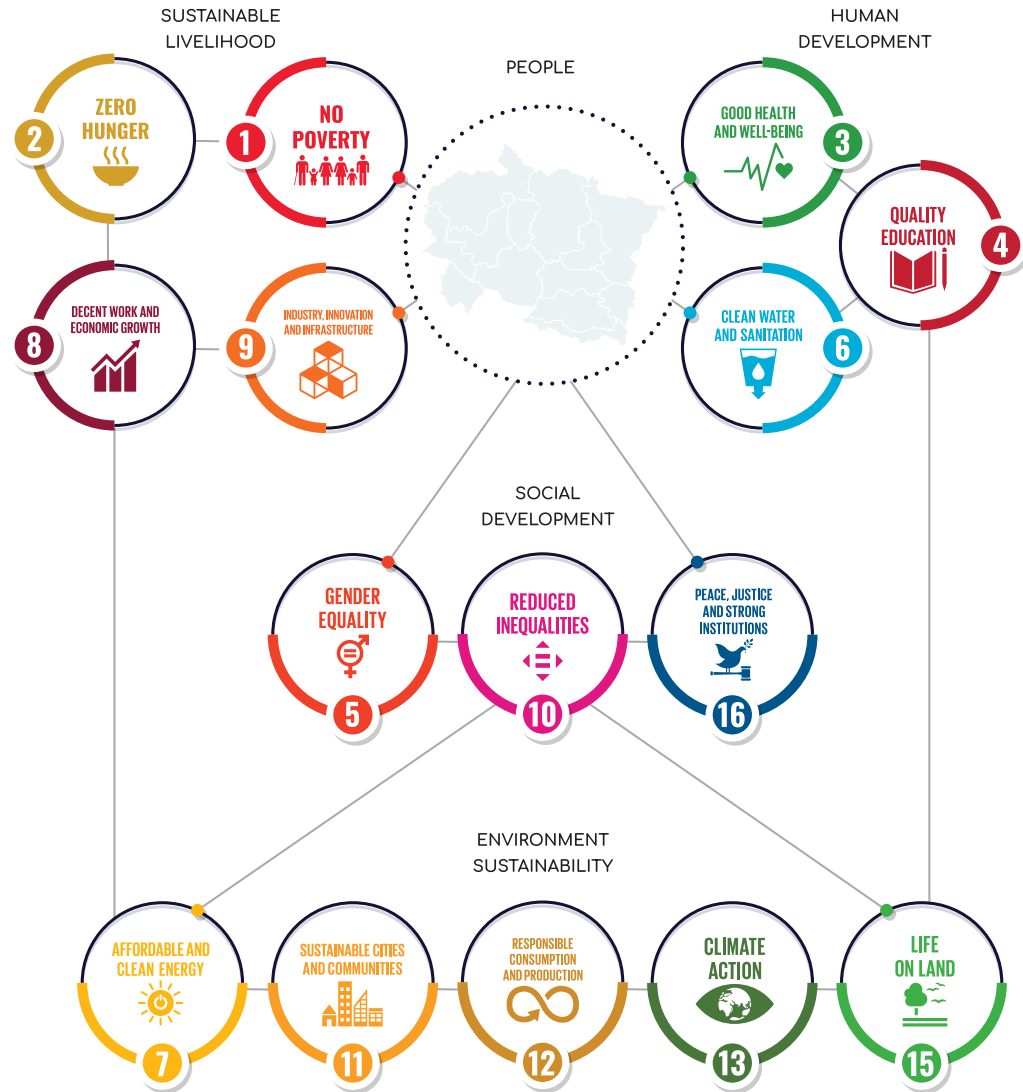


Uttarakhand SDG Goalkeeper Awards

Uttarakhand Vision 2030

The 17 Sustainable Development Goals and 169 targets were devised with the aim of universality and global inclusivity. Hence, they require an equitable involvement and engagement from not just the governmental institutions but also national, state as well as local level organisations and individuals working at the grassroots levels. When people work towards social, economic, and environmental change a sustainable future becomes an achievable reality. Encompassing all the key development sectors, a multitude of self-motivated, innovative, and inspiring organisations and individuals throughout the State act as stakeholders, ensuring the localization of the 2030 Agenda.

Centre for Public Policy and Good Governance in collaboration with the UNDP decided to identify such inspiring change makers of Uttarakhand and recognize them as SDG Goalkeepers. The vision behind the SDG Goalkeeper Awards was not just to praise their efforts but also to promote a sense of cooperation and develop relations to encourage the formation of a collaborative support system with these goalkeepers to work towards the state's sustainable development.



The Process

SDG Goalkeeper Awards 2021

In search of the first cohort of Uttarakhand SDG Goalkeepers, CPPGG invited Individuals, Institutions, the Private sector, Academia, State departments, Civil Society Organizations, Non-Government Organizations, and District authorities across the state. Individuals and organizations working in education, disaster, livelihood, health, water, sanitation, green economy, and other sectors were invited to share their stories of transformative actions. An application form was developed in both Hindi and English, applicants were asked to email the form to CPPGG.

Promotion

An external agency was hired by CPPGG to promote the award as well as execute the felicitation event. The agency implemented a series of promotions using various online and off-line mediums from 15th - 30th Nov 2021. The mix of these means of communication proved helpful in spreading the word at block and district levels.

Social media

CPPGG's social media platforms such as Facebook, Twitter, LinkedIn were also used for the marketing and promotion of the SDG Goalkeeper award. The posters and brochures developed by School of Design (SoD) Doon University were helpful in promoting for the event. Three Instagram influencers also helped in spreading the word.

Print

The event was promoted through advertisements and two press releases issued by CPPGG in three newspapers Dainik Jagran, Amar Ujala and Hindi Hindustan. Amar Ujala also became the official media partner of CPPGG for the event and carried out extensive press releases before the nomination. In addition, five digital news portals also covered the event.



Radio Campaign

The private radio channel with the most listeners in Dehradun Red FM was approached to promote the awards to garner maximum nominations. Considering the strong local presence of community radios in the state, four such radio stations, Mandakini ki Awaz, Kumaon Vani, Radio Khushi, and Radio Zindagee were also partnered to increase the outreach about the event.

These radio stations covered the districts of Rudrapur, Almora, Nainital, Mussoorie, Chamoli, Bageshwar etc. The programs included 60 second RJ mentions played in three different time slots. The community radio also included bytes of Communication and Training expert, CPPGG.

An official letter from Additional CEO was sent to all District Magistrates and district level officials to increase the outreach.

Nominations

The original date for receiving applications was November 25th, however, seeing the number of queries from people and responses the date was extended to November 30, 2021.

A total of 176 applications were received by CPPGG. The nominees ranged from the private sector, the academia, State departments, Civil society organizations, NGOs, and district authorities working in diverse fields like education, livelihood generation, employment creation, afforestation, water and waste management, women empowerment, etc. Individuals and organizations with affiliation to a political or religious parties were discouraged from applying.

Shortlisting Process

The shortlisting process was rather intricate and extensive. It was divided into three phases.

Preliminary shortlisting was conducted by the CPPGG team internally. The criteria for clearing this round were:

- Relevance in achieving the SDGs
- Impact on social and human level
- Effectiveness to bring long-term changes
- Sustainability of the resources used
- Scaling up and Replicability
- Mainstreaming of gender and environmental aspects

Entries were not selected if:

- Form was not filled properly
- Initiative is promoting or connected to any religious group or political party
- Government agencies that applied are implementing regular intervention

Based on the above, 176 applications were divided into three categories. 108 applicants in the green and yellow categories (56+52) were shortlisted for the next level.

● 56 (selected) ● 52 (2nd priority) ● 69 (not selected)



Physical validation was undertaken by a joint team from the Directorate of Economics and Statistics and CPPGG wherein the green and yellow labeled applications were visited spread across 11 districts. Out of the 108 shortlisted, the team was able to reach out to 95 and their validation forms were assembled into a spread sheet and analyzed. Furthering the process, under the leadership of ACEO CPPGG, Dr. Manoj Kumar Pant, a round of discussion was held, and the nominees were marked out of a total of 33 marks. Those who scored more than 25 moved into the next and final step of shortlisting. Out of the 95, 72 nominees made through this round to enter the selection process by the jury.

Jury Selection included two rounds for final selection. A jury of 4 renowned individuals was invited to overlook the jury selection phase.

- In stage one, the CPPGG team gave a presentation of the 72 nominees selected after the physical validation visit. Here the initial criteria for nominations were used as scoring standards, the five criteria of relevance, impact, effectiveness, sustainability, and replicability were allocated 5 marks. The nominees were scored out of 25
- Stage 2 of the jury selection was conducted on April 30 and May 2 2022 wherein the Jury members were given a presentation by the 34 shortlisted nominees either physically or virtually and deliberated on the similar criteria used in stage one

Jury

Eminent Development Experts



Mr. N Ravi Shankar (Chairperson)

Mr. N Ravi Shankar is Ex-Chief Secretary of Uttarakhand. Currently, he is the Chancellor of DIT University. As Secretary (Education) from 2000-02, he helped expand the educational infrastructure in the state from Primary level to Higher Education level. He has also served in the Government of India at various levels.



Prof. Surekha Dangwal

Prof. Surekha Dangwal is the Vice Chancellor of Doon University, Dehradun, Uttarakhand. Earlier she has served as Head of the Department of English, Modern European & Other Foreign Languages, H.N.B. Garhwal University, Srinagar Garhwal, Uttarakhand. She has 34 years of teaching and research experience till date. She has been a recipient of the prestigious DAAD Fellowship (Germany).



Dr. Sharad Singh Negi

A former Himachal cadre Indian Forest officer and former DG (Forest) and Special Secretary to Government of India Dr Sharad Singh Negi is Chairman of Uttarakhand Rural Development and Migration Commission. The Commission has been formed to check migration from hilly to plain areas and works for the development of rural areas. Dr Negi belongs to Pauri Garhwal. He was Director, Forest Research Institute, Dehradun, and Director, Environment and Climate Change, Government of Himachal Pradesh.



Ms. Shikha Ghildiyal

Ms. Ghildiyal is a development practitioner with 20+ years of experience working with international development organizations addressing child rights, gender equity, discrimination and marginalization of minorities and socio-economically vulnerable population with focus on Women and Child Rights. She has worked in South and Central Asia, Southeast Asia, and Pacific region with organizations like Save the Children, Australia & Solomon Islands, Plan International, Swedish Committee for Afghanistan, UNICEF, Afghan Aid etc.

Field Documentation

SDG Goalkeeper Awards 2021

The field documentation process of the Goalkeepers was conducted by School of Design, Doon University. The team from Doon University went out in the field to visit these individuals and organizations, to document the work they have been doing first hand.

A flexible field work protocol was evolved to suit different contexts. The visits were divided into six phases, according to geographical locations and awardee availability. Where possible, the visits were timed to coincide with a local stakeholder event so the documentation team could interact with all stakeholders and beneficiaries directly.

Phase I covered individuals and organizations in Dehradun. In Phase II, visits to the SDG Goalkeepers in the districts of Pithoragarh, Champawat and Bageshwar were completed. Phase III covered visits to Rudraprayag and Chamoli. Torrential monsoon rains made travel in the hilly districts

very difficult and the next three phases of field documentation had to be moved further. Phase IV covered the SDG Goalkeepers in Almora district while Phase V covered those in Nainital and Udham Singh Nagar. In the final phase, award winners in Tehri and Haridwar were visited.

The documentation team conducted interviews of various stakeholders and beneficiaries, and also conducted photo documentation of the field visit. Extensive and in-depth data was collected. The aim was to highlight the main achievements of the SDG Goalkeepers, especially those that set a benchmark in service delivery for others who may follow. These success stories have been compiled into 'Aragāmi', a collection of 27 inspirational tales that will motivate many more citizens of Uttarakhand in the progress towards achieving the Sustainable Development Goals.







1 NO POVERTY





Kapil Talwar

Social Entrepreneur

The havoc of the COVID-19 period was evident post 2019. Many people's jobs and businesses came to a standstill. The training and consulting companies of Kapil Talwar and Rahul Krishna also became victims of the COVID-19 period. All income stopped and years of accumulated capital were used in running the house. The future seemed bleak. Mental conditions and health was deteriorating.

The challenge was to build something entirely from scratch to sustain life and family. Kapil considered several options and came to know about the concept of biofloc fisheries. He had no experience in running a fishery in the past and the challenge was huge, but this challenge did not stop him from his resolve to set up a biofloc fishery in his hometown Khatima in the state of Uttarakhand in 2021.

The highly competent and helpful team from the Department of Fisheries, Udham Singh Nagar assisted him in understanding the subsidy available under the Government of India's Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme and in establishing a fish farm of 50 biofloc tanks for biofloc fish farming, which was only introduced in India last year.

Biofloc fish farming technology has been proved to be a reliable and profitable method of fish farming. They started with 4 tanks and today they have 55 tanks. They

are ready to take this number to 250 tanks in the coming years. By using this technology, land can be used more efficiently.

Work

The rearing of Pangasius and Singi fishes was introduced by Talwar farms in biofloc. They did not, however, stop there, seeing that there was enormous potential in decorative fish breeding and the growing popularity of home fish aquariums. South India and the region around Kolkata have a stranglehold on aquarium fish breeding. They broke the monopoly and established the first ornamental fish farm in North India.

Talwar Farm is on its way to becoming a biofloc fish farming Innovation and Incubation Center (Innovation & Incubation Center) in the area. Through imaginative thinking, they have developed numerous new systems and procedures in fish farming and pioneered many ways. They were warned that biofloc fish aquaculture had significant limitations. Despite such boundaries, they set an example in the industry with their achievements.

Some of their major achievements are:

- To establish Talwar Farms as the first ornamental fish breeding unit in North India
- High-level expertise in making biofloc
- Farming of fish weighing more than kg in biofloc tanks



**WHEN
CORPORATE
SLAVES DECIDE
TO PLAY WITH
WATER, WHAT
HAPPENS? NEW
VENTURES ARE
BORN!”**



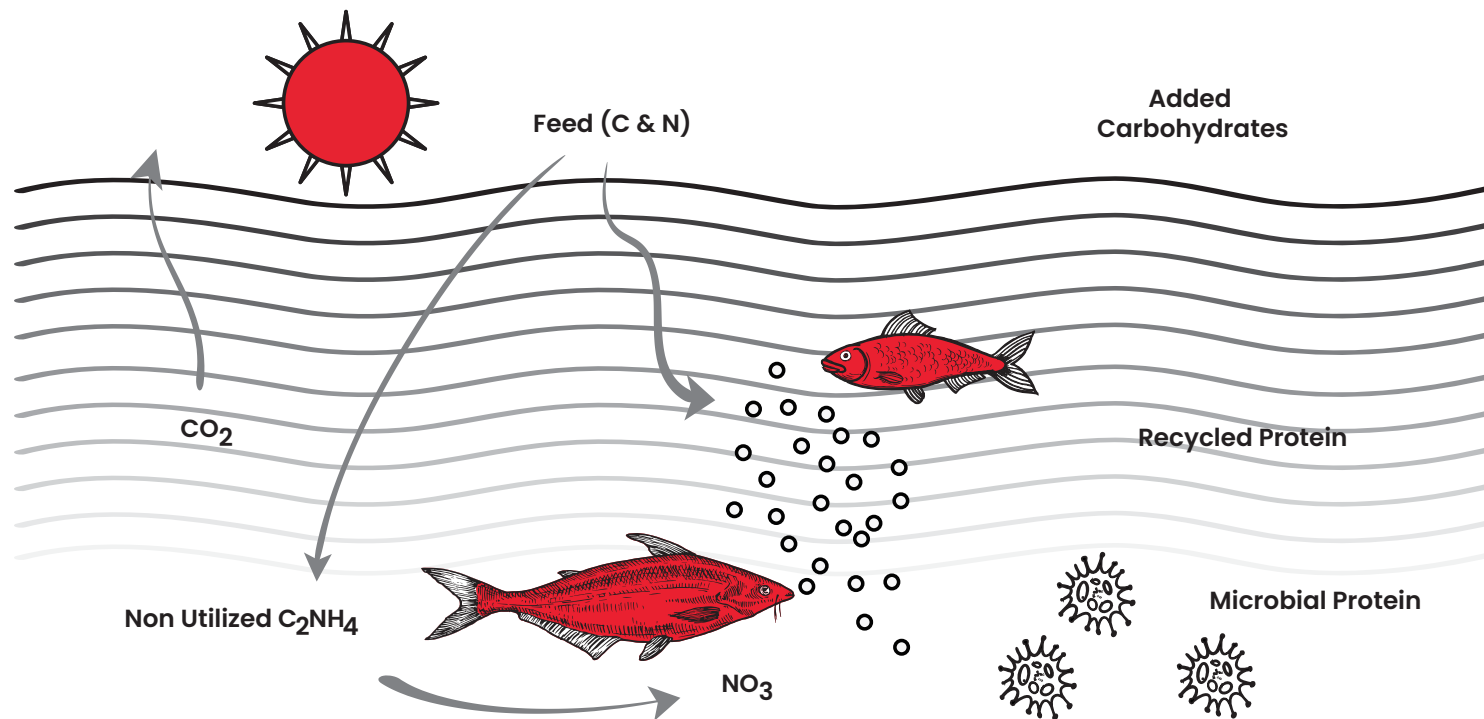
- The first unit in India to set up small square PVC fish tanks for ornamental fishes
- Successful rearing of fish in biofloc tanks in winter
- Successfully create your feed through multiple channels for optimum results

Beneficiaries

Zeeshan Khan is a small-scale trader. A very talented young man of 25 years of age, he earns his living by selling fish from the roadside aquarium near Sitarganj.

Fundamental Challenges

- Fish rearing needs large ponds. With Biofloc technology, farmers can do fish farming in a tank without digging a pond.
- 75% of the fish food is wasted in ponds resulting in ammonia buildup at the bottom
- Ammonia formed in the decay process makes the fish sick
- Biofloc farming converts fish excreta into bacterial proteins beneficial for fish
- Biofloc also converts solid food waste into protein and makes it edible for fish
- Ammonia production necessitates regular water cleaning. Conversion of waste into protein controls the ammonia content of water
- The need to change the water of the tank is very minimal. Only 5% - 10% of the water has to be changed once every 15 days



Top

A biofloc system is used for improving water quality, waste treatment, and disease prevention in intensive aquaculture systems. It uses aggregates of bacteria, algae, or protozoa held together with particulate organic matter

One day Kapil and Rahul saw him. By stopping the car on the side of the road, he was able to get information about his business. He told them that he buys fish from Kolkata and his major problem is the transportation, time, cost, and mortality of fish during transport. All this ultimately adds to the landing cost of the fish and hence the profit margin is low.

They invited him to visit Talwar Farms and offered him fish for a lower price than what they cost. Zeeshan now buys fish from them every week. Its purchase cost is reduced by about 20% and the mortality rate of fish in transport is 0%. The direct benefit of this margin is also being passed on to the customers. So a sustainable

business model has been created which in turn is helping all the local stakeholders. Like Zeeshan, Robin is also a small businessman selling fish at the local market 5 km from Khatima. He was buying fish from the market which sells fish from South India. These fish were not freshly caught, and the transportation cost gets added to the final purchase price. He bought 20-25 kg of fish from Talwar Farms.

Not only has their profit margin increased due to almost zero transportation cost, but fresh fish has also been a friend to the customer to eat. This ensures proper health for the customer. These small, but real examples show how Talwar farms are positively impacting the lives of

Left to Right

Currently, they have 55 tanks and are farming both edible and ornamental fishes that include Chinese Pomfret, Pangasius, Sole, Puntius Narayani, Goldfish, Black Goldfish, Molly, and Guppy



the communities around them. Since they are able to provide fresh fish as food for local communities, it is making a positive impact on people.

They are also able to cooperate indirectly in the direction of resolving the issue of nutrition and providing full stomach food to the poor. Not only this, under Social Responsibility, they are ensuring the upskilling of the people associated with them. They organize regular training and workshops for their staff and regularly organize seminars to educate the local community on how to start fish farming. They also recently organized aquarium-making workshops for all the employees so they could make glass aquariums.

Future Plans

Increased the number of biofloc tanks under PMSY from 55 to 250. Contribute to gender equality and women's

empowerment by working with the Ministry of Fisheries to support the establishment of fish farms for rural women. Support local small business owners involved in the fish trade by offering quality products at competitive prices without shipping costs. Provide business to local and regional traders by purchasing fish feed and other items for fish farms.

Established a processing facility to supply Delhi NCR with fish as part of the Farm to Home program. It will become a breeding and supply base for ornamental fish farming in North India. For 250 biofloc tanks and ponds he acquired 15 acres of land. Establish Talwar Farm as a local fishery innovation and incubation center.

Sharing of best practices for successfully running biofloc fisheries and developing Talwar Farm as a tourist attraction.



Key Innovations

- Uses 40% less feed than traditional fish farming
- Successful in getting multiple crops in a single-year cycle
- Biofloc requires about half the manpower as compared to traditional fish farming
- Controlling the water temperature in the tanks in winter as the tanks is easier in tanks
- Water consumption for biofloc is less than 50% compared to conventional fish farming
- Two dedicated tanks were set up as Pangasius fish nursery tanks to ensure the availability of fish seeds throughout the year irrespective of the weather conditions







1 NO POVERTY



हिमालयन एक्शन रिसर्च सेन्टर (हार्क) HIMALAYAN ACTION RESEARCH CENTRE (HARC)

744, INDIRA NAGAR, PHASE II, PO NEW FOREST, 248001 DEHRADUN, Uttarakhand,
Website: www.harcindia.org, Email: info@harcindia.org, Ph: 0135-270121





Himalayan Action Research Centre

Non-Profit Organisation

Himalayan Action Research Centre (HARC), a non-profit organisation, aims to help the mountain people by working for their holistic, integrated and sustainable development based on indigenous knowledge, cultural values, and local resources. It was established in 1988. HARC has vast experience working with Government departments, institutions and agencies for the last twenty years. HARC has conducted planning, monitoring, micro-planning, training, studies, and surveys. HARC's expertise and practical knowledge in institutional building, entrepreneurship development, organic farming and technology transfer have received recognition at various levels.

The Department of Rural Development has invited HARC, the Directorate of Watershed Development of Uttarakhand, the Diversified Agriculture Support Program of Uttaranchal, Krishi Jalagam of Uttaranchal, Swayam Sidha Project of Uttaranchal, Poverty Eradication Department of Government Chhattisgarh, Horticulture and Agriculture Department of Government of Sikkim, and Hunger Project of Rai Bareilly to train their officials and project beneficiaries on group and federation formation and facilitation, entrepreneurship and micro-enterprise development, organic farming, etc

Work

HARC has an integrated and synergistic approach to other voluntary groups and their development

programs in the area of knowledge & resource sharing, scientific technologies, business development services, convergence and livelihood strategy planning and management. HARC has worked with 11 districts in Uttarakhand using its technical know-how, focusing on increasing rural income through sustainable and better agricultural practices. 15,000 producers in 495 communities have benefited from HARC's assistance over the last two years.

HARC has promoted climate-resilient green technologies with knowledge building for sustaining mountain livelihood and assuring food and economic security of poor and marginal farmers. As part of its efforts to adapt to climate change in several districts of Uttarakhand, HARC has promoted and adopted eco-friendly agricultural methods such as protected cultivation, organic manuring, drip irrigation, soil health, and others. The Himalayan community can improve its food and economic security by promoting improved climate-resilient varieties of apple (low chilling), kiwi, broccoli, capsicum, and other produce, as well as value-added products made from local produce. They concentrated on enhancing institutional and human capacity to build sustainable communities. In the past two years, HARC has strengthened institutions like co-operatives, Self-Help Groups, producer groups, and public-private partnerships to improve access to finance and the market. The capacity building and knowledge enhancement of



**WE FORGET
WE DEPEND
ON FORESTS FOR
OUR SURVIVAL,
FROM THE AIR
WE BREATHE TO
THE WOOD WE
USE”**



approximately 18,000 farmers in the Uttarakhand districts of Bageshwar, Chamoli, Uttarkashi, and Dehradun led to improved yield and a set of practices among the farmers. To support the development of more than 2000 farmers' ability to maintain a sustainable way of life, more than 30,000 high-quality planting materials were created in nurseries.

Over 15,000 apple root-stocks were planted in the field of HARC Nurseries after being created and multiplied by over 200,000 in vitro (lab) conditions. After observing the acceptance and success of these plants in the project region, such nurseries can be a vital source of quality planting for the region. To improve the area's apple belt and boost productivity, more than 55,000 apple trees covering around 594 farmers were revitalised. As a result, more than 25% of the samples from rejuvenated

Fundamental Challenges

- Sustainable livelihood is a key challenge in the difficult geographies of Himalayan regions
- Climate-related changes have further constrained sources of economic security and livelihood
- Locals from the higher Himalayan range are forced to move to the intermediate regions to survive in the harsh climate
- They are dependent on forest resources and subsistence farming for livelihoods
- Cash crops are difficult to grow due to a lack of irrigation sources
- Crop harvest is sold in remote markets as raw goods for very low rates
- Crop cultivation has been impacted by the poor quality of the planting material





Top

Women employees of Himalayan Action Research Center

plants have shown, and about 75% of them have survived. Apple fruit-bearing orchards grew from 23 to 40% by maintaining a pollinator ratio of roughly 20%. The utilisation of the solar-powered all-weather irrigation system installed in the Kapkot block has increased by 40%. This irrigation system covers non-irrigated areas measuring more than 2 hectares.

A total of 126 farmers, including 54 women, have received training in the various methods used to cultivate lilies, chrysanthemums, and gladioli for commercial purposes, such as pinching, line sowing and seed development. For the first time in the agricultural production system, basil, rosemary, and chamomile were introduced with a 20% increase in income. By training 150 households in

collective production and marketing, the project's target producers could earn well by selling 76.70 MT of basil, chamomile, and rosemary to the cooperative. Prepared 28 Micro-business plans of SHGs for CCL linkages and submitted them to the project.

Facilitate market linkages development with Uttarakhand agriculture marketing board for supplying Kharif crops (Finger millets, barnyard millets, amaranth, etc.) In a soil testing lab in Naugaon, Uttarakhand, 4000 soil samples from five districts of Uttarakhand were tested for soil fertility. Based on the results, about 3500 crop and soil-based recommendations were made to farmers to improve production yield and quality and ensure the soil's long-term health.

Left to Right

Scenes from the HARC factory, from farm to packaging

Beneficiaries

They trained the locals, especially women, how to cultivate lilies, chrysanthemums, and gladioli for commercial use, using a variety of methods, including pinching, line sowing, seed development, packaging, etc. They included the local population in the planning and execution of the development process while keeping in mind their needs to make them active participants.

Also, to ensure that development plans and policies are long-lasting and people-focused, they establish and build community-based institutions and organizations that can represent the general population. They also teach individuals how to use markets and other economic activities to get the most out of the available resources without compromising a sustainable way of life or access to food.

Future Plans

Their goal is to establish a strong knowledge management centre that can counsel and suggest farmers and other stakeholders adopt more cutting-edge and scientific management techniques. They want to build a successful incubation and growth center that offers technical and non-technical guidance (on-farm and off-farm training), benefiting rural youth, farm women, students, aspiring entrepreneurs, NGOs, agencies, SHGs, and other groups. They also build convergence with governmental and non-governmental organizations to spread awareness of scientific technologies through training, exhibits, and other public events also establishing a demonstration and advisory center that will help marginal farmers improve their economic, social, and food security by improving stakeholders' skills and knowledge through on and off-farm training, exhibits, and other public events.





Key Innovations

- Promoted climate resilient green technologies
- Championed knowledge building for sustaining mountain livelihood, and assuring food and economic security of poor and marginal farmers
- Integrated and synergetic approach to other voluntary groups and their development programs in the area of knowledge & resource sharing
- Disseminated knowledge on scientific technologies, business development services, convergence and livelihood strategy planning and management in agriculture
- Worked with eleven districts in Uttarakhand using technical know-how
- Focus on increasing rural income through sustainable and better agricultural practices





2 ZERO HUNGER





Hiteshi India

Non-Profit Organisation

Founded in 1994 by Dr Kishan Rana, Hiteshi India is a non-governmental organisation (NGO) based in Anna, Bageshwar, Uttarakhand, that is working initially on education and sustainable rural development programs. Through the realisation of educational and integration programs, the organisation aims to increase citizen participation in local processes and broader contributions to developing democracy and promoting good governance.

Hiteshi supports children and women through education, empowerment, organic agriculture, and livelihood projects. Hiteshi India, under its project Kirsaaan Mahotsav 'Respect for Labour,' focuses on community based livelihood through the farm and allied sectors. It has been organising a grand festival at Dyonai Garur Bageshwar for the last four years to empower rural people in the form of food production, working on farms, and a feeling of motivation throughout their daily live.

Work

The Kirsaaan Mahotsav is an annual three-day event organised by Hiteshi India NGO at Dyonai Garur Bageshwar to promote rural development, empower local people, and inspire women to work on farms to produce food for their families where Hiteshi conducts different events where they can find top contestants from different villages, who have the ability to understand the daily needs and livelihood in the mountains, are

hardworking and can manage their family efficiently. In the first phase, meetings are held in different villages during May and June. Women farmers and young people are invited to register for the next program during the discussion.

In the second phase, a grass-cutting competition is organised among women farmers in the month of August-September. Three women are selected from each tehsil and gram panchayat for the participant who cuts the most grass in two minutes. They are numbered based on the livestock reared by them and their knowledge of farming, livestock, sanitation, organic farming, knowledge of MNREGA, and understanding of the environment. The event brings together model farmers from different parts of Bageshwar district with a total farming experience of nearly 400 years. They come together on a single platform to discuss the needs and possibilities in agriculture.

In the third phase, a three-day event is organised in which different programs are held, and famous singers and dancers are invited. A quiz by subject experts on agriculture-related topics is held, and the winners are honoured at the Kirsaaan Mahotsav.

Hiteshi India also has a team that includes an agricultural scientist, coordinators, resource persons, and a moderator to guide the conversation to a logical



**OUR DREAM IS
EDUCATION
FOR
UNPRIVILEGED
CHILDREN &
EMPLOYMENT
FOR RURAL
WOMEN”**



conclusion and analyse the interventions required. The farmers unanimously agreed to become responsible for creating a platform where the community cares and shares ideas, skills, tools, and technologies. It also identifies the activities that could be undertaken per the specific area, their needs, patterns, a brief sketch of actions and timelines.

Beneficiaries

This initiative benefits society and the village community. A program like this inspires society to protect the environment which will result in less migration from deserted villages. Agriculture will be promoted organically, the economy will improve, and diseases caused by chemical fertilizers will be reduced. Women and girls will be self-employed and empowered and society will become self-sufficient with advanced seeds and advanced technology. By marketing and selling hill

Fundamental Challenges

- Modernisation and reforms have not reached some distant regions of Uttarakhand
- Kirsans of Uttarakhand are the indigenous protectors of the environment in Uttarakhand
- Forests are being felled indiscriminately
- Rivers are drying up
- Villages are abandoned due to migration
- Agricultural lands are barren and unused
- Sources of livelihood are very few and far in between





Top

Hiteshi has been organising Kirsaan Mahotsav from the last four years

products through haat, the economy will grow. If the villages survive, then our folk heritage, folk songs, and traditions will survive and prosper.

The women of Uttarakhand are the backbone of the state. It is certain that when a woman is respected for her work, the cultivation, the environment, the family and

the elders of the family will be able to take care of the mountains. As a result of raising livestock, family nutrition, cow manure, and other natural fertilizers will increase organic manure and increase help the economy. Villages will be self-sufficient. These achievements are visible in the Kirsan Samman program. Only if villages are saved will our culture survive.

Left to Right

Hiteshi India under its project Kirsaan focuses on community based livelihood through the farm and allied sector proving information regarding organic farming, women empowerment, public health and education

Future Plans

'Respect for Labour' which is completely dedicated to the mother power of Uttarakhand, also called the backbone of Uttarakhand Kirsaan Mahotsav, is the program of those labouring farmers and the youth who stays in the village to become self-employed and self-reliant.

The organisation believes that this program will have many far-reaching consequences:

- With this labour honour program, migration from villages will stop
- There will be women's empowerment
- Due to less youth migration from villages, the workload of mother power will be reduced
- The environment (water, forest, land) will be protected
- Organic farming will get a boost. Rural Haat will get a boost, the production of hilly products will increase, marketing will increase, and the economy will be strong
- If the villages survive, our culture, folk songs, and folk traditions will survive, and farming, livestock, fairs, and Teej festivals will remain
- Only then will Uttarakhand become prosperous and self-sufficient. The impact of this program will be on the villages of Uttarakhand, which will motivate them to take care of the resources and environment
- There is a plan to take this program to the villages of Uttarakhand in the future





Key Innovations

- Support children and women through education, empowerment, organic agriculture, and livelihood projects
- Organise the Kirsaan Mahotsav in many tehsils and gram panchayats in Bageshwar and Almora districts
- Conduct different events where they can find top contestants from different villages, who have the ability to understand the daily needs and livelihood in the mountains
- Hard working youth are encouraged to protect the environment, raise animals, grow organic food, and set up small cottage industries to improve livelihoods







2 ZERO HUNGER





Bachi Singh Bisht

Social Entrepreneur

Bachi Singh Bisht is a resident of Supi village, Nainital. He stepped in to help the Ramgarh and Dhari village residents who were suffering from a serious water shortage. Bachi Singh and Mahesh Bhatt began collaborating after they noticed that the majority of the villagers were small and marginal farmers who struggled to irrigate their property. In gathering support for their plan to construct a water tank and to increase public awareness, they started a padh yatra in 2005 from Ramgarh to Dhari village. After building their first water tank in 2011, the villagers of Ramgarh, Pata, Galla, Lod, Supi, and Budichina now have more than 500 of them.

Work

The region around Ramgarh and Dhari is known as the fruit belt of Uttarakhand, where farmers were engaged in cultivating vegetables and selling these to gain significant cash for their livelihood. A significant water shortage in the area was caused by erratic rains brought on by climate change, which also saw little rainfall in the previous ten years. Lack of an alternative method of irrigation and a severe water shortage during the summer prompted Bachi Singh Bisht to launch a campaign to help small and marginal farmers, women, and young people address the issue.

More than 500 mud tanks were dug as part of this community-supported operation, and each one contained a reservoir made of plastic sheeting for storing

water. Each of these plastic water tanks could hold between 10,000 and 25,000 gallons. Therefore, more than 1 crore litres of water are stored in these plastic water tanks, which are used for household tasks, irrigation of agricultural fields, and other uses. This reduced the need for women and young people to go elsewhere to fetch water, saving them time and energy that they could then use for farming, entrepreneurship, and education. Recharging the natural water sources in the mountains is also being done with the help of young people. This helped in timely irrigation of the pea crop and its yield was improved. It also helped in achieving a bumper yield of peaches. Together, this resulted in doubling the income of farmers through sale of the produce of these crops. The activities had such an impact that, as of 2017, the crops in these areas never again suffered from a lack of water supplies. This gave the villagers encouragement, and they went on to grow new crops cucumber and pepper, earning thousands of rupees.

Even though the region needs more plastic sheet tanks to be built, it must be noted that the movement, which is still being led by Bachi Singh Bisht, has significantly reduced the amount of natural water resources needed, increased the moisture in the environment and soil, and created more lush jungles. The area around these communities has nearly no forest fires now. The villagers of Ramgarh, Pata, Galla, Lod, Supi, and Budichina now have more than five hundred tanks altogether.



**OUT OF THE
MOUNTAIN OF
DESPAIR,
A PEBBLE OF
HOPE HAS
SPRUNG”**



Fruit-bearing trees were planted for the purpose of providing food for wild animals in the about 1000-hectare panchayat area of Satbunga and Galla.

Beneficiaries

Small tanks were made out of the area's natural water sources to serve as water sources for the wild animals. Due to this, wild animals were largely kept out of villages. A campaign to end the use of plastic was started. Women

Fundamental Challenges

- Satbunga (Pata), Galla, Lod, Supi, Budichina, and Buransh gram panchayats in district Nainital were experiencing severe water shortages
- Water shortage in the area was caused by erratic rains brought on by climate change.
- The small and marginal farmers in the community could not irrigate their fields
- Many people leave these villages in search of better opportunities in urban centres like Haldwani and Delhi
- Lack of awareness on the fallouts of the lack of water conservation
- No availability of local water reservoirs
- No water for irrigation, cattle or household work
- Rampant migration of men due to low harvest yields and low incomes





Right to Left

Availability of water through the water tanks has increased the fruit production, benefiting the local economy

and children from the villages assisted in cleaning the areas around these natural water sources. In these communities, the water conservation initiative led by Bachi Singh Bisht directly benefited more than 300 families. This inspired the locals to carry out independent water conservation measures. In the process, the villagers built eighty new plastic tanks in their own fields.

As more people and organisations became aware of the difference Bachi Singh Bisht was making in the region, they began to support him. For instance, this movement received more than 500 plastic sheets as donations. People who were involved in this movement themselves understood its value in terms of increased revenue and changed their perspectives on the significance of water conservation.

According to Bachi Singh Bisht, this people-driven, cost-effective project is exceptional and has the potential to serve as a template for other hilly areas looking to conserve water. The project, which was initially launched

in one hamlet, has now been expanded to ten villages. Large farmers in nearby areas, particularly, are already doing this on their own. Due to their limited financial means, support is needed so that small and marginal farmers can also do this on their own. He is still working hard, and he is hoping for more help, especially so he can buy plastic sheets for the tank.

Future Plans

The vision to take this movement on water conservation to at least 1000 households in Ramgarh and Dhari development areas. Another plan is also to reach out to other villages in Uttarakhand and provide them advisory and technical knowhow on water conservation activities. As a next step, Bachi Singh Bisht feels that equal attention needs to be given to rejuvenation of natural water resources in the area. An effort is being made on this front with village women organisations, farmers groups, schools, Panchayati Raj institutions, and Government departments.



Key Innovations

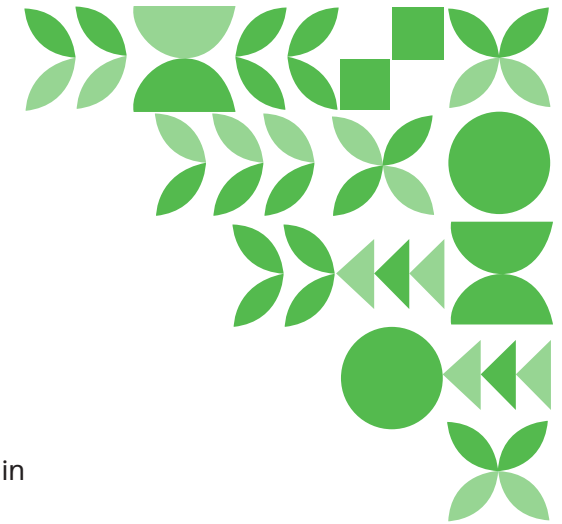
- Farmers engaged in cultivating vegetables and selling these have seen a steep rise in income
- Mobilized local communities, including, small and marginal farmers
- Women and youth were specially included in the community building activities
- Raised awareness of water conservation
- Over 500 mud tanks dug as part of this community-supported operation
- Capacity of plastic water tanks is as high as 10,000 and 25,000 gallons





3 GOOD HEALTH
AND WELL-BEING





Uttarakhand Association for Positive People Living With HIV/AIDS

Non-Profit Organisation

Uttarakhand Association for Positive People Living With HIV/AIDS, also known as UKNP+, is a community-based, non-profit organization working for the last 8 years to represent the needs of people living with HIV (PLHIV) in Uttarakhand state. UKNP+ was established by a group of people living with HIV in 2010 and registered under the Society Registration Act. UKNP+ promotes community engagement and holistic development, empowering communities by prioritizing PLHIV, especially women and children, to build a healthier environment for all.

Work

UKNP+ has been working for the HIV-infected peoples of the Uttarakhand state since 2010 and is working closely with the different departments and government agencies to achieve the 2030 goal of Sustainable Development Goal 03. Currently, they are working with 2573 of the HIV population of Garhwal Mandal who are on ARV treatment.

They aim to mobilize the community of Uttarakhand PLHIV who have lived with HIV and/or AIDS under the forum of UKNP+ and improve the survival rates and quality of life of HIV positive people living with HIV and/or AIDS and reduce HIV infection and expand the positive prevention activities. They work to provide equal rights

to the positive people living with HIV and/or AIDS in Uttarakhand in the society with dignity and peace.

Beneficiaries

UKNP+ has created an impact on the lives of more than 2000 people. Currently, they are working with more than 800 families and 2768 people whose at least one family member is HIV positive. There have been many stories about people who have lost loved ones due to HIV, the cruel phase of stigma, and problems that threaten their life, but regular contact and counselling sessions with them have brought many people back from the brink. People had many diseases, such as TB, high blood pressure, mental illness, and many other problems, and many times they lost hope of living but were supported by constant and regular counselling, dietary supplements, and financial assistance. Now they stand fit and healthy in front of us and have become living examples of survivors. Currently, they are providing care and support services to the people of Uttarakhand. In addition, they ensure that all persons receiving HIV treatment have access to all government services.

They have also delivered ARV medicine door to door to every possible client at the time of COVID-19, free of cost, to ensure that no one was left without treatment.

“
**ONE DAY,
 HIV-POSITIVE
 PEOPLE WILL NO
 LONGER FEEL LOST
 AND ALONE,
 THAT IS OUR
 GOAL”**



Future Plans

The UKNP+ plans to expand the activity and implement this model across the entire state with the support of multiple partners and stakeholders. They plan to add some more components to the program to address the challenges. In addition, all HIV-positive people living in their localities can have access to services. The focus of the program is to increase support for PLHIV and get the involvement of PLHIV via CSR Networks or a chain of donors in a larger scale of activities. To achieve the goal, the following activities are undertaken:

Fundamental Challenges

- Major challenge in HIV cases is retention and treatment adherence
- HIV treatment is a lifelong treatment as the person living with HIV needs to take their ARV treatment for the rest of their life
- Very difficult for patients to sustain treatment for so long
- Patients often stop receiving treatment, increasing the risk of other opportunistic infections
- Children may digest the heavy dosage medicines causing harmful side effects
- During the COVID pandemic period, every form of transportation and mobilisation was suspended, and getting ARV treatment became impossible





Right to Left

Awareness campaign conducted at Rishikesh, where masks and medicines were delivered door to door during the COVID-19 period

Educational Programme:

Aiming to focus on the girl child or poor children education programs to emphasize the level of education the government and many organizations are focusing on increasing the literacy rate by involving the CLHIV in the schemes without disclosing their PLHIV identity to safeguard their rights and be well treated, which will cause an increase in the literacy rate.

Skill Training:

To give them a high level of skill training which includes Computer, Handloom, Crafts, Home based work, House based Products manufacturing, etc.

Employment Programme:

The concern is on providing self-employment to the people. Currently, there are several schemes launched by the government to make the country self-dependent (Pradhan Mantri Saw-Rojgar Yojana), etc., and many others to focus on as much as possible to be facilitated.

Health & Hygiene:

Educating the large mass of mostly PLHIV people will allow us to influence their minds.

Mother & Child Health:

Providing treatment for a mother and child prevents them from contracting HIV or infectious diseases from infected individuals.

Water & Sanitization:

Water Management Activities to improve the farmers' ability to irrigate their land and increase production by solving the problems associated with rainwater dependency.

Nutrition:

Currently, they are receiving nutritional support for 20 CLHIVs every month through the Maa Kalika Bal Seva Dal Samiti. They are also focusing on supporting orphans and poor children throughout Uttarakhand.



Key Innovations

- UKNP+ was established by a group of people living with HIV in 2010 and registered under the Society Registration Act
- Promote community engagement and holistic development, empowering communities by prioritising PLHIV to build a healthier environment for all genders
- Currently working with 2573 of the HIV population of Garhwal Mandal who are on ARV treatment
- Scheme called 'Urja' for Children living with HIV, which ensures that every child gets appropriate medicines without any harmful side effects
- Hold marriage support groups from time to time to help people living with HIV find a perfect mate





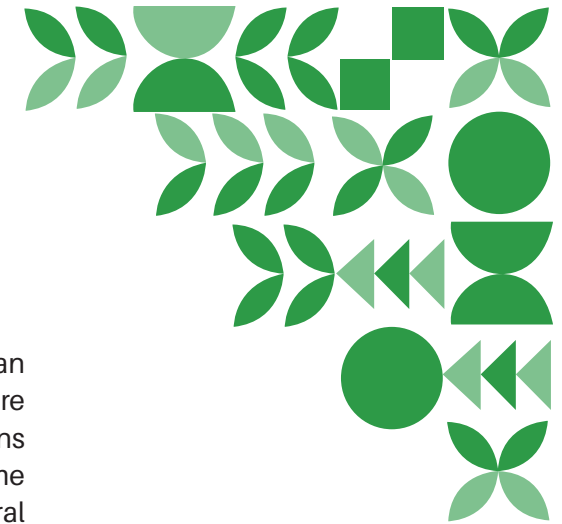
3 GOOD HEALTH AND WELL-BEING



Sewa Aarogyam

Mobile Health Van





Sewa International

Non-Profit Organisation

In 1993, Sewa International was founded as a movement to involve the Indian diaspora (NRI) globally. It inspired them to give to local and national humanitarian causes, especially during natural disasters like floods, earthquakes, cyclones, tsunamis, pandemics, etc. which inflict widespread suffering and require enormous resources for recovery. Over 25 countries are currently included in the movement's global expansion. Sewa International was founded in India in 1997 as a legally recognized non-profit trust, according to the country's core values of 'Service before Self' and 'World is One Family'.

Since its founding, Sewa International has dedicated itself to helping those in need worldwide, regardless of caste, creed, color, religion, race or area. In Uttarakhand Sewa International's Mobile Health Van (MHV) Sewa Aarogyam has been providing 24 medical camps each month to meet the needs of these rural and marginalized individuals in the districts of Chamoli and Rudraprayag since November 2018.

Work

Sewa International runs a multi-facility Mobile Health Van (MHV) under Sewa Aarogyam, which operates in the remotest corners of Rudraprayag & Chamoli districts of Uttarakhand. Tough terrains and scattered settlements are the main challenges the villagers face in accessing primary health services and appropriate treatment.

The MHV serves more than 200 villages and travels an average distance of 2200 km in one month. There are 24 service points (Medical Camps) at different locations in both the districts, and provides primary and some advanced healthcare services to around 1300 rural people every month.

The MHV is also equipped with qualified doctors, paramedics, pharmacists, and lab technicians. The 24 camp locations have been selected after a profound need-based survey and mobilisation in both districts to cater to the needs of the maximum number of people. The MHV is equipped with modern medical facilities such as X-Ray, ECG, and access to various pathological lab tests.

Every month around 1300 people from the rural areas of Chamoli and Rudraprayag get medical benefits such as X-Ray, various pathological lab tests medicines and one-to-one consultation by an qualified doctors. The serious and emergency cases are referred to Hospitals in Srinagar, Rishikesh, and Dehradun through referral linkages. Mothers need to get regular health checks both during and after pregnancy.

Also, they have community facilitators who conduct surveys in the serviced areas and connect expectant and nursing mothers with the MHV, where a doctor and other medical professionals look after them and provide



**AN
UTTARAKHAND
WHERE
EVERYONE
ENJOYS GOOD
HEALTH WILL
LEAD TO A
HAPPY STATE”**



them with medicine. In response to the high number of OPD visits, they introduced E-Health Centres with public access to telemedicine services.

These centres also offer various lab tests and surgery facilities. Sewa International runs a multi-facility Mobile Health Van (MHV) under Sewa Aarogyam, which operates in the remotest corners of Rudraprayag & Chamoli districts of Uttarakhand. Tough terrains and scattered settlements are the main challenges the villagers face in accessing primary health services and appropriate treatment.

The MHV serves more than 200 villages and travels an average distance of 2200 km in one month. There are 24 service points (Medical Camps) at different locations in

Fundamental Challenges

- Uttarakhand has many challenges in reaching all the citizens in remote locations
- Medical services in the government hospitals are under severe pressure
- Rural citizens move to urban areas for better healthcare services
- Medical professionals and para-professionals do not want to work in remote locations
- Elderly and women are especially vulnerable
- Lack of medical services leads to low life expectancy and lower quality of life





Top

Sewa International multi-facility Mobile Health Van (MHV) under Sewa Aarogyam

both districts and provide primary and some advanced healthcare services to around 1300 rural people every month. The MHV is also equipped with qualified doctors, paramedics, pharmacists, and lab technicians.

The 24 camp locations have been selected after a profound need-based survey and mobilization in both districts to cater to the needs of the maximum number of people. The MHV is equipped with modern medical facilities such as X-Ray, ECG, and access to various pathological lab tests.

The main aim of Sewa International is to serve humanity in distress, either directly or through empowered

local partners, especially in times of disaster. Despite limited resources, they work extremely hard to provide help to affected people. Most of these local NGOs lack basic systems (timely reporting, monitoring, language issues, low capacity, etc.), which results in the majority of aid going to big players, leaving these organizations struggling for money.

Sewa International tries to empower these local organizations so that aid reaches the end beneficiary. The assistance of short-term disaster relief and rescue operations has given way over the past ten years to more successful long-term rehabilitation and development programs in underserved areas.

Top

SEWA conducts regular health camps for medical check up of villagers



The organization's motivation stems from the demand for longer-lasting solutions to the underlying socio-economic problems. Sewa International is currently working in 20 states in India in the areas of health, education, generating income, protecting the environment, developing skills, community/rural development, women's empowerment, and water conservation, both directly and with the aid of devoted grassroots organizations.

The main function of Mobile Medical Vehicles is to ensure that the remote people living in poverty and those in need living in rural locations, away from civic, medical facilities can obtain healthcare services.

The facilities in Tamil Nadu, Kerala, and Uttarakhand offer free medicines, medical advice, diagnosis, and referrals to reputable government health facilities. At the same time, they also work on raising locals' understanding

of safety precautions and cleanliness. Sewa organizes periodic free medical camps in the rural and tribal region to provide locals with free medicines and consultation from experienced doctors. Free medical camps are being organized yearly in Uttarakhand, Kutch, Bangalore, Hyderabad, Kerala, Tamil Nadu, and the North East region.

Health, hygiene and WASH Awareness are also addressed by them through Kishori Samuh's (adolescent girl's groups) project to teach young girls about menstrual hygiene, health, and sanitation is effective across India. In collaboration with ANM, ASHA, and Anganwadi workers, various awareness campaigns regarding preventive health care are being run by them. India has been hard-hit by the COVID-19 second wave, affecting India's social and economic recovery. India experienced a 6-fold surge in daily cases and the greatest single-day spike in COVID-19 cases in April 2020.



Top

SEWA visits every village for routine checkups

With 3 million current cases, the pandemic's effects were felt everywhere. The urban poor and slum dwellers were the social group most negatively impacted by this pandemic. Sewa International extended its activities as part of its 2020 COVID-19 relief efforts. Sewa International consequently decided to develop a T-model intervention for the pandemic, Breadth: Awareness, Essentials, and Digital Helpdesk Depth: Oxygen and Vaccination. The breadth involves interventions that provide quick relief and are immediately impactful in saving lives and livelihoods. The depth ensures systematic strengthening and long-term sustainability.

Beneficiaries

Each month, they organize twenty-four medical camps to meet the needs of these remote and rural people and

create a positive impact through operational excellence and beneficiary empowerment.

They are proactive and responsive to the needs of society while promoting self reliance among those served. They respect and safeguard our environment, respect the dignity of every human being, and consider humanity. They also accept and celebrate diversity in people and communities. They are sensitive to the cultural backgrounds of the people they serve.

Future Plans

They plan to increase the number of camps every month. They are also planning and developing proposals to scale up this initiative in other districts of Uttarakhand.



Key Innovations

- Multi-facility Mobile Health Van (MHV) that serves the most outlying areas of the Rudraprayag & Chamoli districts of Uttarakhand
- Over 1300 residents of the rural Chamoli and Rudraprayag areas receive pathological services every month, including X-rays, several pathological lab testing, and one-on-one medical consultations with MBBS doctors and prescription medications
- Twenty-four medical camps monthly to meet the requirements of rural and marginalised people
- Highly scalable service model, fully deployable in all hilly districts
- Model is being replicated in Tripura and Rajasthan by Sewa International.





4 QUALITY EDUCATION





Aasraa Trust

Non-Profit Organisation

Shaila Brijnath established Aasraa Trust in Dehradun in 2009 to educate and nurture the city's most underprivileged and vulnerable children. She promoted the need for education in the riverbed slum community under the Bindal bridge. While volunteering with the Latika Roy Foundation to educate underprivileged children in Dehradun, Shaila Brijnath came across an eye-opening reality. She had just returned to India after living in London for 40 years and was told to work with some teenage children suffering from addiction. They were as young as six years old, but when she started working in the area, she was shocked to see that the condition was worse than expected. They found children as young as two and four who were victims of substance abuse because their parents were addicts. There was illness and illiteracy, children were left alone without proper care, and teenagers were begging for the sake of their addictions. Getting these children to school looked extremely difficult. This situation profoundly impacted her and led her to establish the non-profit organisation Aasraa Trust.

Shaila established the Trust with the help of some funds she received from friends and family. Local people joined in the work, helping Shaila build a small shed to conduct classes and enabling her to run as many as 13 programs under the bridge. She started visiting these settlements to teach, bathe and groom around 30 kids daily. As a first step, 35 children living in a slum under Bindal Bridge

were enrolled in a government school. But once again, Shaila found a huge gap in conceptual learning, with no consideration for the children's backgrounds. Her goal was to provide equal opportunities to all children, regardless of their background, so she gathered a small team and started a makeshift school near the bridge. The idea was to spread awareness about education among children from underprivileged families and provide them with informal training to prepare them for mainstream schools.

Providing the kids with Bournvita and a banana right before classes was the motivating factor for them to join. Children from classes 1 to 6, were taught. For children who came with their younger siblings, a small courtyard was set up where they could keep an eye on them. Sewing classes were conducted in one room for mothers whose elder children were studying, who continued these classes for about two years. There were 130 children in Aasraa's family by 2011. In later years, when the landlord took back the property, the principal of St. Joseph's Academy in Dehradun opened its doors to the children of the Aasraa Trust. This allowed them to continue their education. Eventually, Aasraa began supporting a local government school, Rajkiya Purva Madhyamik Vidyalaya, in running its residential unit. Children from extremely impoverished backgrounds, including those who have never seen books or attended school, are served by this organisation.

“
**EDUCATION
 DOES NOT
 TAKE PLACE IN
 ISOLATION. IF A
 CHILD IS HUNGRY,
 UNWELL, OR
 COLD, THERE
 IS NO POINT IN
 TRYING TO TEACH
 THEM”**



Today, Aasraa supports over 4,000 children across 50+ projects in Dehradun. Starting with street-level mobilisation, they use a multi-faceted approach that prepares children for mainstream education and transition to higher studies & skills training. They are also certified by the National Institute of Open Schooling.

They collaborate with the Education Department of Uttarakhand to improve the quality of education in 9 government schools. In addition, they have built homes for phased-out, abandoned, abused, and special needs children. Aasraa works towards empowering street and slum children through education and vocational training and providing them with nutrition, medical care, and shelter homes. What started as a small setup with a group of 35 children has now grown into a large organisation. It works with over 4000 children in 50+ centres around Dehradun.

Work

Aasraa has been working with out-of-school street and slum children since 2009 in Dehradun with the belief that there is no unreachable or unteachable child. They aim to bring underserved children into the fold of education by mainstreaming them into the formal education system. Their Street Smart Program prepares them for formal schooling by bringing education to them. Project Street Smart was started on the pavements of Astley Hall in 2011 with a group of 5 street children.

The objective was to keep the children off the streets and provide them with basic literacy through art, craft, music, and audio-visual medium. The School Quality Enhancement Program initiative is an extension of this mission in government schools. Government schools lack the basic funding and initiative required to improve



Fundamental Challenges

- Abandoned children and those living on the streets lack equal opportunities to even the most basic of amenities
- Illness and illiteracy prevails in the children
- Without care and supervision, many turn to petty crime and dependencies
- Teenagers resort to begging for the sake of their addictions
- The first endeavour was a makeshift school near the Bindal bridge which was tough to maintain
- Many children are caregivers for younger siblings and cannot spare time for schooling.
- For them, a small courtyard was set up where they could keep an eye on the infants and toddlers



the schools' standards. The condition of government schools can be improved if only all team members, from the education department to the teachers, worked dedicatedly and honestly towards improving educational standards believed to be immovable. Cooperation and coordinated action between government authorities and teachers can change the current state of government schools.

To bring about this change, Aasraa Trust signed an MoU with the Education Department Sarva Shiksha Abhiyan (SSA) Uttarakhand to improve the quality of education and resources available to the 6 schools currently under SQEP. The number of schools has increased to 9 recently. The School Quality Enhancement Program (SQEP) was formally initiated on 1st April, 2019 in four primary schools and two upper primary schools in Dehradun. Their objective is to transform these government

Right to Left

Project Street Smart was started in 2011 with a group of 5 street children on the pavements of Astley Hall. Through art, craft, music, and visual media, they taught the children basic literacy and kept them off the streets, and provided them with nutritional support & medical care

Top

Aasraa aims to mainstream the underprivileged students into formal schools or empower them to earn a respectable livelihood

schools into centres of excellence, where parents prefer these schools to enrol their children over private budget schools.

Today, Aasraa works towards empowering street and slum children through education, vocational training, nutrition, medical care, and providing shelter homes. The mission is to level the playing field for children who have neither seen books nor stepped into a school. The children came from extremely impoverished backgrounds and were mostly rag pickers, beggars, addicts, runaways, and orphans.

After seeing the success of 6 of their government partner schools in the first two academic sessions, they have replicated this model in 3 more government schools, proving that this initiative is both replicable and scalable. The state of the government schools across all districts in Uttarakhand is similar, and this intervention can prove groundbreaking if implemented properly in collaboration.

Beneficiaries

There are two types of beneficiaries in this model:

- Children who are currently enrolled in the select group of government schools.
- Out-of-school children who are mainstreamed into these schools by Aasraa.

Most of these children belong to families where the parents work as migrant labourers who fall under the economically weaker sections and/or have Below Poverty Line (BPL) status. Most of these children live in slums. Some of these children work, beg, or pick up trash to become extra-earning hands for their families. They live in the most vulnerable circumstances, often falling



prey to exploitation, abuse, and social neglect. Under Aasraa's umbrella, we have provided these children access to quality education, nutrition, clothing, and medical care.

Future Plans

Aasraa's mission is to ensure that government schools collaborate with them and show the potential of the children to be self-sufficient. They strive for sustainability by basing our model on the pillars of capacity building and institutionalising best practices. This model will strengthen the educational system in government schools and will be sustained through the continuation of our implemented methodologies by school authorities. As the entire process will be participatory, the skills and knowledge gained by the present group of teachers and school management staff will be transferable, replicable, and scalable. They will play an important role in taking forward and ensuring positive learning outcomes for children.



Key Innovations

- Enrolled over 635 children in the last three academic sessions in 9 government schools
- Schools have adequate classrooms, furniture, whiteboards, and water purifiers
- Regular influx of supplies, teaching materials, transportation, and extra teachers is ensured
- Computer labs and Computer Aided Learning (CAL) are provided in all 6 schools
- A special needs educator is assigned to all 9 SQEP centres to work with the children who are facing difficulty coping due to learning disabilities
- After school remedial program called Wings of Doon for clearing concepts and helping with homework







4 QUALITY EDUCATION





Chandan Singh Ghughthyal

Social Entrepreneur

Chandan Singh Ghughthyal, has been actively participating in quality education and actively contributing to society through social work for over 27 years. He has initiated many charitable ventures till date, including distributing books and shoes to children, developing libraries, and installing water purifiers in many schools.

On June 17th, 2021, Chandan Singh Ghughthyal began the campaign 'Connecting to the Roots' after noticing that the youngsters in his village, Dungari (Block Syalde Almora), had not touched their books in several months. He began tutoring them for a few weeks and thought about the youngsters in the other villages. After that, a WhatsApp group was formed. Children from adjacent villages could join the sessions via their parents' or village heads' cell phones.

During the holidays, going from village to village and giving career counselling to the children, he has been running programs to make good use of the time and skill development of the rural children. With the help of his students and family members, he provided education on various subjects to rural children through online mediums during the pandemic and even now.

He, along with the help of his students and the staff of the Doon School where he works, have been taking classes every evening since he started the campaign.

He also helps poor rural children by providing scholarships from his limited resources. Chandan Singh Ghughthyal has also participated in many other such activities, including all national campaigns like Padhe India Badhe India, Swachh Bharat Abhiyan, and Samagra Shiksha. He has also given his suggestions through SCERT after extensive study on New Education Policy 2020.

He has also contributed to making Mathematics interesting through the necessity of a Mathematics laboratory in the state and a Mathematics exhibition. Along with the online classes for children during the COVID-19 pandemic, the Department of Education has greatly appreciated the help from him and other teachers making Google Forms and Google Classroom effective.

This initiative is unique and impactful as it is being carried out by students and staff from The Doon School, a prestigious boarding school in India. Individuals engaged have no vested stake in the outcome. This project has become a part of the school curriculum and will continue to work with the same enthusiasm and zeal long beyond the pandemic.

Work

Chandan Singh Ghughthyal installed solar purifiers at five schools, namely GHS Upper Kandoli, GIC Banjarawala, SRVM Dotiyalgaon, GIC Mahakaleshwar Chaukhutia,



**IF A CHILD
CAN'T LEARN
THE WAY WE
TEACH, WE
SHOULD TEACH
THE WAY THEY
LEARN”**



and Dwarahat Public School, to give fresh and pure water to the students when the schools were opened for a few days before the second wave of COVID-19. He reached out to more students through various activities. Motivational speakers were invited to motivate the children of rural areas. The installation of LED bulbs and a Solar water purifier is being done in many schools and will be continued.

Fundamental Challenges

- Children in rural areas were unable to attend schools during the Covid Period
- The uncertainty of the pandemic affected children's mental health
- No psychological support at home or in the community
- Basic information about Covid-19 could not be imparted to the children as the adults themselves were not aware
- Aid and social workers were unable to reach out to those in remote places
- Local schools lacked the resources to conduct online classes or counsel the students



Beneficiaries

The initiative 'Connecting to the Roots' has gained a lot of momentum among students in Uttarakhand's rural communities. Despite the fact that students from Almora, Chamoli, and Dehradun have benefited the most, other students have also expressed an interest in participating in the study sessions.

Students have gain in many ways:

- They have gained confidence
- They interact with the other children confidently
- They have started conversing in English
- They participate in quizzes and debates
- They are now able to express their problems
- A total of 130 students were provided career counselling and benefited from the programs, and learned basic English
- Interacted with many motivational speakers and completed several online tests.
- Life skills are also being taught to the children

Many teachers and students are already volunteering to teach classes on a rotating basis. The impact of the classes may be observed in the student's eagerness to learn more about the subject. They learn English, mathematics, life skills, science, and other subjects in these classes.

Future Plans

- Aiming to reach as many children as possible
- Provide special classes on sundays, such as remedial classes
- Career Counseling sessions for career development.
- Assisting students to prepare for recruitment into the military and police by providing English and mathematics instruction

Top to Bottom

Along with the students of the Doon School, Chandan Singh Ghughthyal visited government schools and donated many useful items



Key Innovations

- Chandan Singh Ghughthyal began the campaign 'Connecting to the Roots' in his village, Dungri (Block Syalde Almora)
- Obtained help from his students and family
- Provided education on various subjects to rural children through online medium during the pandemic
- Children joined sessions from adjacent villages using their parents' or village heads' cell phones
- Many motivational speakers were invited to speak to the children and guide them
- Other activities include distributing books and shoes to children, developing libraries, and installing water purifiers in many schools.









Joginder Rohilla

Social Entrepreneur

Joginder Rohilla started Sanskriti in 2007 with the purpose of setting up libraries and provide career guidance to kids. Joginder Rohilla holds a bachelor's degree in engineering and a postgraduate diploma in management. He came up with the idea for Sanskriti with his elder brother.

He loved books in his college days, but they did not have a good library in their city Bahadurgarh (Haryana) and felt the lack of it deeply. Thus, when his career stabilised, even though his brother had unexpectedly passed away by then, he revisited the dream they had dreamed together, and it took shape in the form of Sanskriti in 2007.

Joginder and his father started a small free public library in their own home in July 2007. Sanskriti was formally launched in 2008. He traveled between Gurgaon and Bahadurgarh while working for TCS in Gurgaon to manage both Sanskriti and his day job.

Many kids were attracted to the library and would visit to read and learn. They eventually developed more discipline and interest in the subject matter they were learning. In 2009, his job led him to Chile and Belgium, but he continued to work with his friends while he was gone because he knew they were on to something special and meaningful. He made contacts with foreigners he thought could be able to help Sanskriti.

When he was traveling in Europe, an NRI contacted him on social media and gave his Bahadurgarh city library books worth Rs 50,000. He returned to India in 2013 to focus full-time on Sanskriti.

Leaving his job abroad, his energies were focused on Sanskriti and his startup when he suffered a major setback. His father was diagnosed with cancer, a battle he eventually lost. Despite this, with newfound vigor, he began work on Sanskriti and a rural IT startup, ETechDreams. He had the idea to start such libraries all over India after seeing how the library impacted his city.

Work

Sanskriti Initiative has opened free libraries with engaging, high-quality books in rural areas and provided students with a space to study. This is being done in collaboration with individuals, government rural schools, and other organisations, mostly those already working in the education sector. They reach children in rural areas. To set up, initially they provide 150-200 high-quality children's books, along with some equipment in the shape of a table, chair, almirah, book rack, etc., to build a free library for rural kids.

These books are available in Hindi and English and include fiction, nonfiction, and inspirational titles. They are working at the base of the pyramid to create a strong educational and reading mindset in children.



**THERE IS STILL A
LOT TO DO, THIS
IS ONLY THE
BEGINNING”**



The tangible effect of these libraries can be seen in the shining and smiling faces of the children when they are in the library. In their hanging library initiative, they reached out to students who could not go to school because of household work, etc. Educators took the hanging library to their native places and started teaching. It was a transforming moment for them.

More than 30 of these free libraries have been established by Joginder across Uttarakhand, having a direct or indirect influence on over 5000 children. Their aim is to make Uttarakhand the state with the freest libraries for children, where every child has access to high-quality books and grows to love reading. They have opened

Fundamental Challenges

- Building and sustaining a good team is the most challenging task
- Many people come forward, but only a few stay on to sustain activities
- Completely funded by voluntary donations
- Dependent on contributions from benefactors to keep going
- The lack of steady funding has been a hindrance



more than 90 free libraries across the nation as well. The quality of the books comes first. They provide books that are suitable for different reading levels. There are many cases in our nation where a child is in a higher class but is illiterate. So, the books they offer are suitable for the reading level, that can engage every child according to their present ability and help in their continued growth. They collaborate with individuals and organisations who have engaged in the education sector already. They explore different individuals & organizations through social media and then thoroughly vet them to create this network of libraries. So the impact is multifold in such cases.

They empower children through books which in turn creates a long-lasting impact on them with a safe space to read. Many times there are scenarios where students can't come to school in rural areas because they need to take care of the household chores like children taking their cattle for grazing. Joginder seeks to help them too.

Beneficiaries

Children from rural areas lack the resources to buy better books and create an environment conducive to learning and reading. Joginder hosts workshops for those children, and many children arrive at the sessions and participate in painting competitions.

To encourage the children, they award prizes to the ones whose paintings have received the most interest and give free books to them. Children who attend seminars receive free crayons, pencils, erasers, and geometry boxes, and at the end of the seminars, they were given snacks. Career guidance seminars helped students to find their way toward their goals. A template with all available careers for the students has been created.

Future Plans

Joginder wants to establish Uttarakhand as a leader in providing children in rural regions with quality educational space with a network of libraries. He plans to call for opening as many as possible, as soon as possible. He will focus on mission 1000 Libraries once mission 100 Libraries is complete.

Bottom

Map indicating the locations of the libraries that Joginder has established





Key Innovations

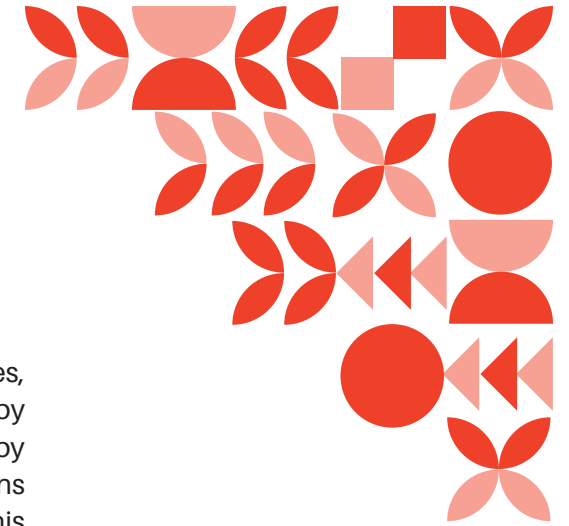
- Adopted a few orphanages and government schools, where they distribute stationery and books to children regularly
- Provide various materials for educational requirements of children
- Arrange career guidance sessions wherein the team goes to rural schools to mentor and counsel students about career prospects
- Career guidance seminars to assist students in exploring the path toward their career goals
- Started Etech Dreams in a small town outside Dehradun, called Sudhowala, to save on overheads and provide low-cost IT services to clients around the world
- Helping to generate employment in rural areas in the IT sector





5 GENDER EQUALITY





Indira Adhikari

Social Entrepreneur

Indira Adhikari, who hails from Almora, Uttarakhand, is leaving no stone unturned to promote the folk painting of her state Aipan art of Uttarakhand. After working for eight years in the country's capital Delhi, she returned to Almora during the COVID-19 period.

Indira works in Majkhali, Almora district. When she returned to Almora, she started working to promote the vanishing folk art of Uttarakhand and formed the Kalarambh Arts in 2020. Indira had to face many problems in the initial phase. Time changed, and she relied on her skills while dealing with all the challenges. Today, she has connected more than 150 local women with self-employment on the strength of Aipan.

Work

Aipan painting has special significance in Kumaon. Every festival and religious ritual of Kumaon is considered incomplete without Aipan. Women make Aipans in the courtyards of houses and temples. Mainly red and white colours are used in making it. There was a time when Aipan art was limited only to the doorsteps of the house. Today it has become a powerful medium of self-expression and self-employment. On one hand, folk culture and folk art are being encouraged, while on the other, it has encouraged self-employment.

Indira Adhikari, along with the other women, makes Aipan designs on yantras, dupattas, pichodas, torans,

cushion covers, curtains, key rings, nameplates, wall paintings, rakhis, etc. Many products made by them are available for sale in Almora and nearby markets. Today, many daughters of the mountains are not only becoming self-sufficient through this traditional folk art of Kumaon. Using their skills they have made it an important means of livelihood.

Beneficiaries

More than 50 women have joined Indira from Almora, Haridwar, Pithoragarh, and Nainital. With training, women have taken significant steps towards self-employment. Indira has given training and information about the Government Laghu Udham loan scheme to about 20 villages of Almora. She has been making Aipan art from the last twelve years and has been running the Kalarambh project since 2020, which is also registered under the MSME scheme.

Future Plans

Indira wants to employ 500 women and make them entrepreneurs in the coming two years by incorporating modernity in their products to turn them into sellable goods and take them to big markets. She aims to connect with more and more people and hopes that in the future, she will be able to provide 100% employment to women. She also plans to connect her work to the world by creating a website and adding her works to the online platform.



**WE HAVE
TO PROMOTE
BOTH THE
FOLK AND THE
FOLK ART OF
UTTARAKHAND”**



Fundamental Challenges

- Returned to Almora during the COVID-19 pandemic
- Faced with vanishing folk arts of Uttarakhand
- No organizations were working on the revival of the Aipan arts
- Women had traditional knowledge of the crafts, passed down over generations but no coordinating effort was being made
- Artists have been working individually but lack a banner to work under





Key Innovations

- Formed the Kalarambh Arts in 2020, Majkhali, Almora district
- Prepared an action plan for women having less knowledge of handicrafts to become entrepreneurs
- Provided information on dealing with financial shortages in managing small enterprises
- Imparted proper training to everyone, without any government support
- Built skills of women in Aipan, weaving, embroidery, and crafts
- Encouraged self-employment and small enterprise building in women
- Creation of new market friendly designs and innovative products
- Connected more than 150 local women with self-employment

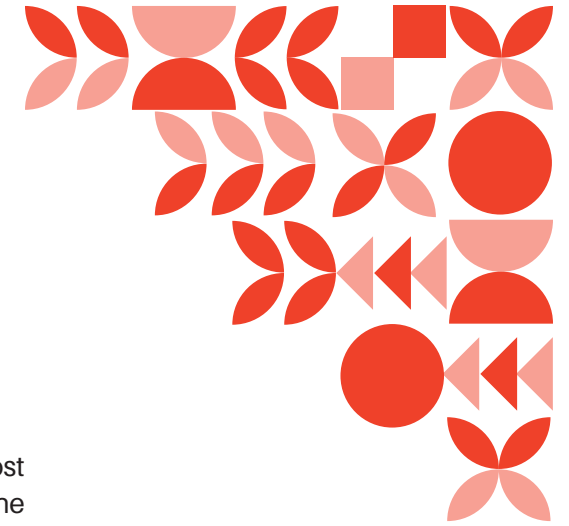






5 GENDER EQUALITY

The icon for Sustainable Development Goal 5, Gender Equality, is a white symbol on a red square background. It features a circle with three horizontal lines inside, a vertical line extending from the bottom, and a cross at the top right, representing the female symbol. A small arrow points from the top right towards the top left.



Himgiri Natural Products Co-Operative Society

Social Entrepreneur

In 2016, Preeti Bhandari started working on mushrooms to support her family. In 2019 she founded a cooperative society named Himgiri Natural Cooperative Society with 150-200 women involved. Together they grow mushrooms and manufacture products like pickles, salt, masala, etc. Additionally, she provides training to women as part of the NRLM project on mushroom cultivation and self-employment.

Preeti has been cultivating mushrooms in her village for the last five years and was honoured with the Tilu Rauteli Award in the year 2020-22. She not only cultivates mushrooms but also trains youths and women to help them and motivates them towards self-employment. Although she was very short of resources, she never let her self-confidence and courage fall.

She grew mushrooms in a small room in her own house. She started the work of growing mushrooms in a small room with only 20 bags. At that time, she did not have any experience, nor did she take any training in mushroom cultivation, nor did she have any experience to guide her. Having only passion and confidence, she worked hard and laboured, and today, after five years of dedicated work, Preeti has developed the techniques to grow mushrooms in diverse conditions.

In the season in which her mushrooms are most produced, she also makes pickles for that season. She supplies pickles to many big cities, including Delhi, where she gets pickles at wholesale prices. During her 5-year journey, Preeti worked hard to grow mushrooms. She gathered relevant information related to mushroom growing, and today the result of her dedicated work is that she has acquired expertise in mushroom cultivation. She trains youth and women in individual sessions, promoting self-employment through groups and aims to pass on the knowledge to the next generation.

Work

In the year 2020, an organization named 'Himgiri Natural Products Co-Operative Society Ltd' was formed by Preeti to provide compost (manure), chemicals, poly bags, and other packaging materials for button mushrooms. Himgiri also provided training in mushroom production. Through this, the work of mushroom production was started in the old school buildings and houses of the village. The organization is also doing the work of making compost of button mushrooms itself. This is because all the items related to mushrooms like manure, chemical fertilizers, polythene bags, and packaging material can be purchased at reasonable rates. To solve the problem of marketing mushrooms, the organization is currently



**WE STARTED
SMALL BUT
TODAY WE ARE
PROVIDING
LIVELIHOOD TO
MANY”**



working on developing various dishes related to mushrooms like papad and pickles and providing them to the market. To increase the work of the institution and to remove the paucity of funds, a loan of three lakhs was also taken by the institution under Pandit Deendayal Krishi Kalyan Yojana.

Fundamental Challenges

- Paucity of space to cultivate mushroom crop
- Agricultural training centres for mushroom production are not available in smaller towns
- Mountain people have a negative attitude toward mushroom production and consumption sometimes
- Materials for mushroom cultivation and packaging for such as compost, chemicals, and poly bags, are not readily available.
- Lack of funds, a lack of marketing, and a lack of value-added information
- Mushrooms have a very low shelf life





Beneficiaries

With the mushroom production work that was started by the organization, many women were able to work from home. The organization provided assistance and training to many people in the district and nearby districts in adopting mushroom production as self-employment, which greatly improved their livelihood. More than 800 people have been trained by the organization through government and non-government trainings in various districts, out of which several groups and organizations are currently working on mushroom production. Ready-made bags of button mushrooms and Dhingri mushrooms are also provided by the organization to individuals so that anyone can easily do mushroom training and production of fresh mushrooms by staying at home.

The organization also gives training on various dishes made from mushrooms, which has benefited many people. Given the good work of the organization, in collaboration with the district administration, of Almora, the vacant building of Government Primary School, Talad has been given to them for mushroom production and training. At present, 2000 bags of button mushrooms have been installed by the institution in the said building. Mushroom production is being done by the women groups of NRLM, LM, and ILSP to meet the market demand.

Future Plans

At present, all the producers have been connected by the organization through their Facebook page, due to which they are getting the facility of marketing in one place. The organization will also set up mushroom related stalls and training programs to make the public aware of the benefits of using mushrooms.

Top to Bottom

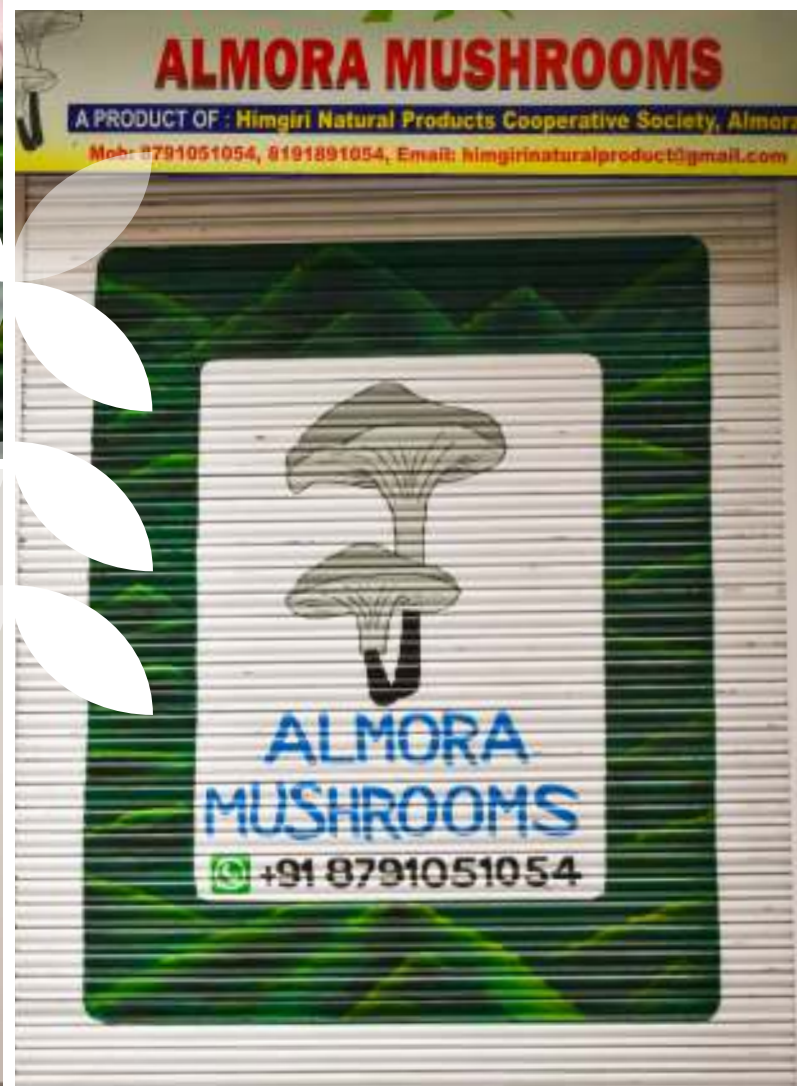
At the moment, Preeti is farming two types of mushrooms, button mushrooms and oyster mushrooms



Key Innovations

- Set up a cooperative society named Himgiri Natural Cooperative Society with 150-200 women
- Train youth and women to equip them with skills to be self employed
- Varied mushroom products like pickles have been introduced to use up the excess crop during peak season when mushrooms are most abundant
- Simple, easily replicable cultivation model that requires low start up capital
- Can be run from just a room as well, providing an easy source of income





6 CLEAN WATER AND SANITATION





Himmotthan Society

Non-Profit Organisation

In 2001, Tata Trusts initiated Himmotthan Pariyojana (HMP) to target the root causes of underdevelopment in the Central Himalayan region of Uttarakhand. Himmotthan, the associate organization which manages the Himmotthan Pariyojana, has been active in the central Himalayan regions of Uttarakhand since 2007. The expansion of Himmotthan work beyond the Central Himalayan region of Uttarakhand to the Western Himalayan region is seen as natural growth of the organization. This has evolved through constant learning and incorporating various ideas aimed at improving rural communities.

Himmotthan works in the state of Uttarakhand, Himachal Pradesh, and the Leh region and is focused on working among rural mountain communities by developing sustainable community-owned enterprises linked to livestock, agriculture, non-timber forest produce, and intervening for better education, access to safe water, sanitation and energy.

Work

Exacerbating water scarcity and erratic precipitation are some of the common direct outcomes of climate-changing events that have been notable over the last few decades. Mountain communities of the Himalayan region are more vulnerable as they largely lean on natural water springs for their water demand for households and livelihoods. In the Indian Himalayan states, 285 blocks

out of a total of 593 are found to be water scarce. Access to clean and safe drinking water directly impacts the quality and prosperity of human life.

Himmotthan Society is implementing a water and sanitation program in 5 hill districts of Uttarakhand, namely Pithoragarh, Almora, Nainital, Tehri, and Rudraprayag. It aims to improve community health by providing village-level drinking water and environmental sanitation projects with an added focus on hygiene through village-based water and sanitation committees and plan, design, implement and manage their schemes.

From October 2002 to January 2016, three phases have been completed, covering 133 villages, benefiting 7,000 households comprising 46,794 beneficiaries. 218 drinking water schemes, 573 Rain Water Harvesting Structures (RWHSs), and 10,000 Sanitation units are constructed.

Himmotthan, under Tata Water Mission (TWM), is taking forward the Water Sanitation & Hygiene (WaSH) initiative focusing largely on water security, promotion of point of use, making villages Open Defecation Free (ODF), School WaSH, Behavioral Change Communication (BCC), and working closely on Swachh Bharat Mission with the State, Central Government, and Gram Panchayats to facilitate the access and use of sanitation facilities in remote villages of the Himalayas. WaSH initiatives by



**WE WANT
TO BUILD
PROSPEROUS
AND
SELF-SUSTAINING
MOUNTAIN
COMMUNITIES
THAT LIVE IN
HARMONY WITH
NATURE”**

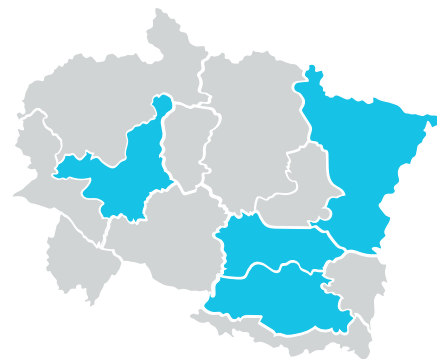


2019 have benefited 500 villages covering more than 52,000 beneficiaries.

Himotthan has been implementing spring-fed, gravity flow Community Water Supply and Sanitation WaSH, which has benefitted more than 40,000 individuals, spread across 133 villages in Uttarakhand through 200 gravity flow water schemes. Over 7,000 sanitation units were built as part of the WaSH program. The village communities own and manage all the assets created under the project. Comprehensive scientific methods (hydro-geology, assessment of water quality etc) were added to the WATSAN program in 2009. These augmented groundwater recharge, thus ensuring the

Fundamental Challenges

- Despite being the home to many headwaters, remote areas of Uttarakhand suffer from aject water poverty
- Rural areas of Uttarakhand are dependent on water supply from reserve forests
- Any water security program can only be implemented successfully in collaboration with the forest department
- Dry springs that are no longer functioning need rejuvenation
- Constructive augmentation and spring resurgence of discharge needs to be aided
- Extreme drudgery for women and children, walking long distances to get potable water





Top

Himmotthan's support and community led interventions to develop and manage the Watershed increase quantity of water discharged and improve water quantity (Watershed management done in Churer Dhar village, Tehri Garhwal District)

long-term sustainability of water schemes. Different recharge measures such as staggered contour trenches, recharge pits, and loose boulder checkdams constructed for spring shed management have prevented both soil and water runoff, increasing water infiltration rate and enhancing water discharge from springs. The dams have also helped to reduce landslides due to peak flow (runoff). More than 145 springs were augmented in a project undertaken by Himmotthan, resulting in a sustained water supply to project villages.

The WaSH program has also followed an integrated approach between water supply development, sanitation, and catchment area protection to improve

water resource sustainability. Currently, Himmotthan, with its Implementation Support Agency (ISA) is implementing WaSH projects in 400 plus villages in Uttarakhand. Water security and its management is an integral part of the program. Eighty-five schools will also benefit through a program, comprising 5,000 students.

Himmotthan has also worked extensively with other programs like Swachh Bharat Mission (Rural) and MGNREGA to promote the construction of toilets within the house. 70% of the households have mentioned that the construction of toilets has helped improve overall health conditions and reduced their medical expenses. Through the menstrual hygiene management initiative,

Left to Right

The Springshed Management project is being implemented in 300 plus villages in six Districts of Uttarakhand



Himmotthan also provides a platform for sharing information, safe product discussion, behaviour change, and other soft issues which need attention.

Beneficiaries

Water security is the most significant component of human existence. The Himmotthan society became involved in the water security program since the hill area spring shed is the lifeline of the community. After the intervention, there has been a 55.5% increase in discharge in the spring shed.

This project have reduced drudgery (among women and children) and livestock and fodder generation in (Van Panchayat), as well as improved the use of treated water and the maintenance of the spring, thereby bringing social harmony and creating a sense of connectedness among

the beneficiaries towards these precious resources. As a result of increased water availability, water could be retrieved from alternate sources at a shorter distance. A participatory approach was implemented for spring shed and water supply schemes, engaging the community for their contributions.

Future Plans

Himmotthan & the Forest department have formed a joint program - SMC - Springshed Management Consortium, and 100 dry springs are proposed for rejuvenation with the forest department. In Uttarakhand, 184 villages are proposed for awareness programs, water quality, Village Water & Sanitation Committee (VWSC) strengthening, and water sustainability schemes under Jal Jivan Mission (JJM) program.

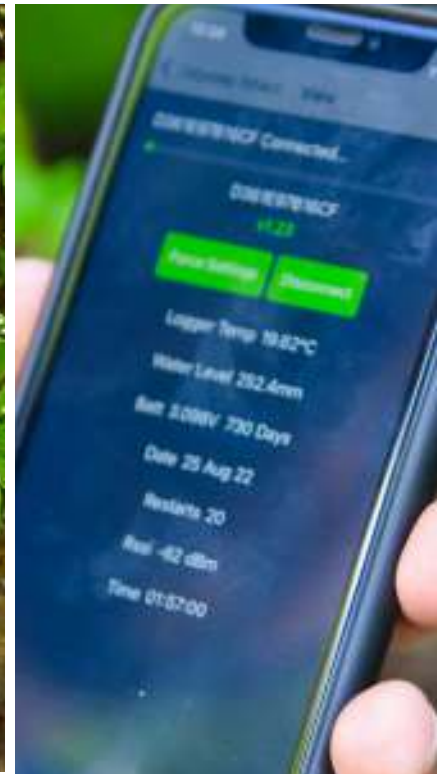


Key Innovations

- Joint program with Forest department named Springshed Management Consortium
- Deep Infiltration Wells have been constructed in villages like Maini Panchgaon (Almora)
- Water distribution to the community through solar lifting
- Implemented water and sanitation programs in five hill districts of Uttarakhand, Pithoragarh, Almora, Nainital, Tehri, and Rudraprayag
- Three phases of the project have covered 133 villages, benefiting 7,000 households comprising 46,794 beneficiaries
- Implemented 218 drinking water schemes, 573 Rain Water Harvesting Structures, and construction of 10,000 sanitation units



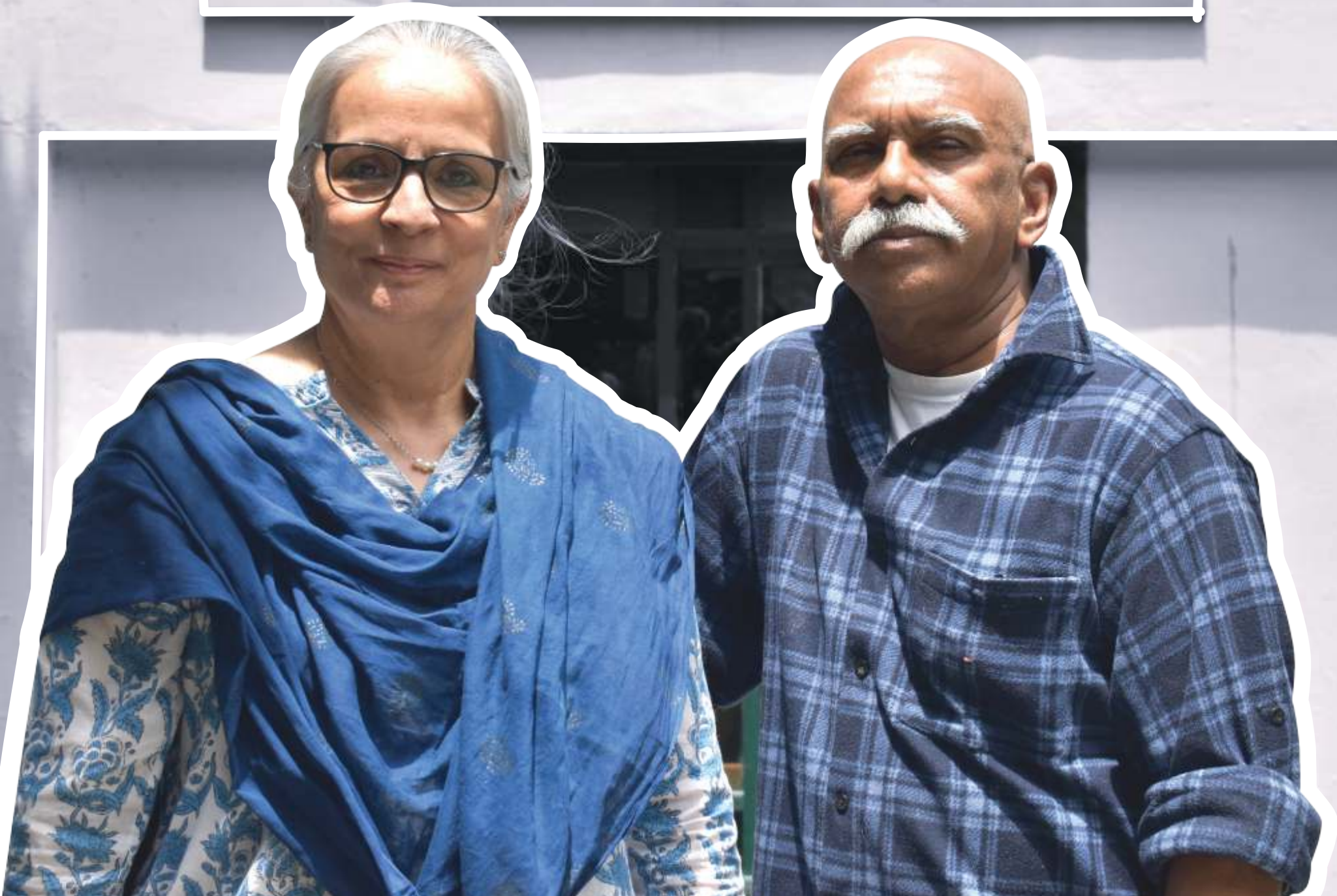


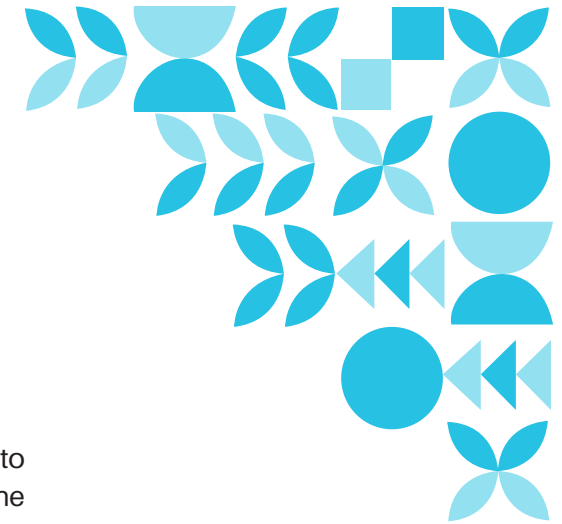


6 CLEAN WATER
AND SANITATION



HOUSE OF UMANG
Community Owned Enterprise





Pan Himalayan Grassroots Development Foundation

Non-Profit Organisation

The Pan Himalayan Grassroots Development Foundation was established as a non-profit voluntary organization. Kalyan, together with his wife Anita, founded Grassroots back in 1992. Recognized internationally as social and environmental entrepreneurs through the Ashoka Network, they are constantly engaged in the research and development of new technologies and ideas for improving the lives of mountain communities. Kalyan oversees all areas of work and is particularly responsible for the Eco-Restoration efforts in the Gagas river basin and for sharing best practices across the Himalayas through the Partners in Change program.

Anita oversees the livelihoods improvement program and all community liaison outreach, which forms the foundation of all programs. Uniting disparate groups to work effectively together can be challenging. Fortunately, Anita and Kalyan have previous experiences in establishing producer-owned dairy coops on the Anand Pattern. In addition, Anita is responsible for the growth of Mahila Umang Samite.

Work

Environmental degradation has led to a significant decline in the quality of life for mountain communities. The Pan Himalayan Grassroots Development Foundation (Grassroots) works in the central and western Himalayan

states of Uttarakhand and Himachal Pradesh to promote sustainable, self-reliant development at the village level. The emphasis is on self-help participation working across the integrated issues of water & sanitation, renewable energy, community forestry, sustainable agriculture and enterprise development.

In the Himalayas, there is chronic water shortage. Streams and springs have dried up. Traditional water collection methods are no longer enough to meet local needs due to a lack of vegetation needed to replenish basic water resources and an increase in population. This makes it extremely difficult for women to fetch water from far-off sources and is to blame for the rise in water-borne illnesses. The need for a reliable and accessible year-round water supply has led to the Grassroots implementation of infiltration wells for drinking water and rainwater harvest systems for sanitation purposes.

Infiltration wells for safe drinking water, sanitary infrastructure, and rainwater collection were adopted as suitable technological options for remote mountain communities, and in some cases, they also served as an entry point for involving the communities in the long-term objective of eco-restoration. Under such circumstances, Grassroots has found it relevant to introduce an appropriate technology application.



**PURE
WATER IS
THE WORLD'S
FIRST AND
FOREMOST
MEDICINE”**



Infiltration wells have not only given communities access to larger supplies of clean drinking water, but they have also given them the capacity to run and maintain these facilities independently of the government. The idea of communities footing 10 to 20 percent of the bill for such drinking water systems has also received strong feedback. The per capita investment for such community-managed drinking water systems is Rs 800 compared to conventional piped water supply systems from distant secondary sources, which are at least ten times more expensive.

Building on their capacities to install, operate, and maintain the infiltration wells in partnership with community members, local youth have become barefoot

Fundamental Challenges

- Environmental degradation has led to a significant decline in the quality of life of mountain communities
- Chronic water and other essential biomass shortages are being experienced
- Women and children have to suffer the indignity of trudging miles daily to meet basic requirements
- Significant denudation of vegetal cover in the immediate catchment areas has resulted in poor recharge of primary water resources and along with increasing population
- Water sources have dried up and only half are functional, of which on some are functional through the year





hydro-engineers as a result of grassroots field experiences promoting appropriate technology applications. Over time, they have emerged as a key player in advancing appropriate technologies in the central Himalayas. Community Managed Drinking Water programs have been implemented in the following three manners, depending on the location and potential water availability: Infiltration wells fitted with hand pumps Infiltration wells are fitted with submersible pumps in case it is located away from the village. Water is then pumped to an overhead tank and then supplied through gravity flow systems, in case the location of the water source is over the village.

Communities have contributed 10-20 % of capital costs in cash or kind and also resolved to take responsibility for future maintenance costs, which depend on the technology option adopted by the village. In all cases, the expenses are met by the user groups, and in the case of pumping and gravity flow systems, the finances are also managed by the appointed committee members. Based on the Detailed Project Report, the financial outlay is transferred to the village account and managed jointly with appointed members. Communities are engaged in implementing the program right from the pre-feasibility stage, and labor requirements for doing what is necessary are also recruited from the village as far as possible. Contact details of the guild members are shared with communities. In case they cannot repair themselves, the guild assists by doing what is necessary and providing the necessary spare parts. For the community-controlled drinking water initiatives that Grassroots has built, community involvement in planning, execution, and future challenges has been crucial. Women are the main beneficiaries of such planning efforts and have been crucial contributors from the pre-feasibility stage

Right

Pump water is safe for drinking

Left to Right

PanHimalayan Grassroots Pumphouse
and Hand-Pump



through creating an action plan. They are essential to all activities and are also involved in maintenance issues and implementing policies to enhance the area's overall hydrology. The traditional stone-pitched drinking water structure known as the Naula is extended and improved by infiltration wells, making them a prime example of appropriate technology. Traditionally, these naulas would gather shallow subsurface water capillaries when a seepage zone approaches the surface. These naulas cannot supply the growing water needs during the summer because of environmental conditions that cause them to dry up. Deeper water capillaries are collected by infiltration wells, which then store the water in wells composed of porous blocks.

Beneficiaries

In the state of Uttarakhand, 95% of the installations managed drinking water systems based on 648 infiltration wells in 484 villages spread across 58

blocks in 12 Districts in the states of Himachal Pradesh and Uttarakhand. The benefits of this technology have reached more than 25,000 families, providing 3.50 million liters of safe drinking water per day, or 30 liters per person per day, for more than 1,15,000 beneficiaries. These programs are still operational and are run and regulated by local communities. When they need minor repairs, they contact the local youth guild, who have received the necessary training and tools to complete the task. The communities themselves are responsible for paying for these repairs.

Future Plans

Empowered teams of local youth act as water warriors. They can assist Performance Related Incentive System (PRIS) in addressing water scarcity issues with a major focus on the sustainability of water resources and enable communities, especially women as the primary stakeholders.



Key Innovations

- Working across central and western Himalayan states of Uttarakhand and Himachal Pradesh to promote sustainable, self-reliant development at the village level
- Infiltration wells for safe drinking water, sanitary infrastructure, and rainwater collection adopted as suitable technological options for remote mountain communities
- Management of drinking water systems based on 648 infiltration wells in 484 villages spread across 58 Blocks in 12 Districts in the two states of Himachal Pradesh and Uttarakhand
- Benefits of appropriate technology have reached more than 25,000 families







7 AFFORDABLE AND
CLEAN ENERGY



पनचक्की



KB System Private Limited

Non-Profit Organisation

Nithilesh Kumar is the founder of KB system. He has a PGDM (Materials & Production) Degree in Industrial Engineering, a Diploma (Electronics Engineering), and more than 22 years of industry experience. His technological expertise, knowledge of supply chains, and inventory management expertise help him direct day-to-day business development. KB Systems Private Limited (KBSPL) is a group of professionals working in different segments to provide all solutions under one roof. Since its incorporation in 2015, the company has been engaged in projects and engineering consulting, as well as providing services in solar and bioenergy, facility management, industrial electrical, civil EPC & AMC, material supply & servicing, manpower & HR, and other areas. The goal of KBSPL is to achieve client satisfaction, which serves as its driving force. The philosophy of symbiosis and synthesis of efforts for a higher quality of life for humans and the environment.

Nithilesh Kumar is visually impaired. He lost his eyesight in 2012. He discovered that the high-speed processed food we consume is the cause of sight loss in many people. He moved to India in 2015 and decided to work with 'slow' manufacturing methods and came across the 'gharat'.

Work

In 2020, KBSPL ventured into flour milling, launched KB Chiya brand of water-milled (panchakki) flour, and

manufactured superior quality flours to cater to the rapidly growing market of health-conscious customers. KBSPL has signed an MoU with GB Pant University of Agriculture & Technology (GBPUAT) Pantnagar for technical guidance.

Traditional watermills (locally known as panchakki, gharat, ghat, ghatta) are still relevant as people prefer grains ground by these mills. Slow revolving grinding stone which prevents the heating up of flour due to water flowing underground helps in retaining the flavor, aroma and nutrients of the cereal.

Traditional watermills have existed in the Himalayan region and northern plains of India since the 4th century AD. They were used for grinding grains, spices and cattle feed in rural areas. These mills look like small structures generally constructed near a village stream and are powered by the flowing water drawn from a cascading mountain stream, river or irrigation canal through a narrow channel.

These traditional watermills, though low in efficiency, have proven to be the best examples of clean energy generation at a small scale. Products made by KB Systems Private Limited are Panchakki Wheat Atta, Multigrain Atta, Multigrain diet Atta, Ragi (Madua/Koda) (Finger Millet) Aata, Bajra (Pearl Millet) Aata, Makke Ka Atta, Jhungar (Barnyard Millet), Cucumber-Urad Badi, Mungodi, Chana Sattu, Barley (Jau) Sattu.



**YOU CAN DO
ANYTHING IF
YOU SET HIGH
GOALS AND PUSH
YOURSELF TO
ACHIEVE THEM”**



Benefits

The seeds of cereal plants are known as grains. Wheat, rice, and corn are a few of the most common kinds. Some seeds of non-grass plants, or pseudo cereals, are also considered whole grains, including buckwheat, quinoa, and amaranth. Grains can be rolled, crushed, or crack. They are regarded as whole grains as long as the three components of bran, germ and endosperm are present in their natural ratio. Only the endosperm remains in refined grains after the bran and germ have been removed. Although some vitamins and minerals are put back to enriched refined grains, they are still not as nutritious or nutrient-dense as whole grains. Common varieties of whole grains include: Oatmeal, Popcorn, Millet, Quinoa, Brown rice, Wheat berry, Barley and Sorghum.

Fundamental Challenges

- Poor food quality outcomes from careless production of flour in electric mills without consideration for the temperature of production, particle size, or nutritional value
- Migration from hilly areas has resulted in ghost villages and local economic distress
- Unused bodies of flowing water are being mistreated and abandoned in large numbers
- High-speed processed food lacks micro nutrients and leads to deficiency diseases in the body
- Communicating the link of health and slow milling of grains to the public has been a challenge





Top

Traditional watermills are maintained and run by locals

Some of the main benefits of KB whole grains are-
 High in nutrients and fibre : The brand provides most of the fibre in whole grains. Niacin, thiamine, and folate are just a few of the B vitamins that are particularly abundant in whole grains.

Lower risk of heart disease : Whole grains reduce risk of developing heart disease, the world's leading cause of death, which is one of their major health advantages. Three portions of whole grains per day may reduce risk of heart disease greatly.

Lower risk of stroke : Whole grains may also help lower risk of stroke. Those eating the most whole grains have a

lower risk of stroke. Furthermore, certain compounds in whole grains, such as fibre, Vitamin K, and antioxidants, can reduce risk of stroke.

Future Plans

KB System plan to raise the number of water mills to 100, which will boost production to 160 tonnes per day. As watermills use nearby water trenches, rural employment will be boosted, reducing unnecessary migration because of a lack of opportunities, and also maximise green energy. Inactive or ineffective water mills can be revitalised to generate clean energy and turn liabilities into new sources of income, thus diversifying income and reintegrating local residents.



Key Innovations

- Re-introduced concept of slow milling to the area
- Introduced healthy products like Panchakki Wheat Atta, MultiGrain Atta, MultiGrain diet Atta, Ragi (Madua/ Koda) (Finger Millet) Aata, Bajra (Pearl Millet) Aata, Makke Ka Atta, Jhungar(Barnyard Millet), Cucumber-Urad Badi, Mungodi, Chana Sattu, Barley (Jau) Sattu
- Providing employment in rural areas with water sources
- Rejuvenating old water mills that have been abandoned
- Tied up with local stores to promote sale of slow milled products
- Expertise in solar and bioenergy, facility management, civil engineering, material supply etc.





8 DECENT WORK AND
ECONOMIC GROWTH





Kailash Puspwan

Non-Profit Organisation

Himalayan Gramin Vikas Sanstha (HGVS) was founded in 2008 by Dr. Kailash Puspwan in Ukhimath, located near Kedarnath in Uttarakhand at 1311m height. It is 41 km from the district headquarters of Rudraprayag. It is a sacred pilgrimage site. During winters, the idols from Kedarnath and Madmaheshwar are brought to Ukhimath and worshiped for six months. Deoriatal, Chopta, Tungnath, and many other popular tourist and pilgrimage sites are nearby. The organization's mission is to develop, through education and action, cohesive communities empowered to create rich, sustainable lives for themselves and future generations.

Community, environment, and development are deeply linked to each other. Relationships and networks developed through trust and continuing dialogue enable us to respond to internal, external, social, economic, and environmental change. Working and learning together, the centres and communities in this area develop a deeper understanding of the interactions among the different parts of the village ecosystem and the conflicts generated by modernity in traditional ways of living.

Their long-term engagement with the communities, particularly women and children, enables a participatory way of making and implementing decisions about what is right for them, their families, and their villages. With this framework, they have been able to plan, organize and implement programs that respond to various issues

like Environment, Climate Change, Education, Women's Empowerment, Health, Livelihoods, Energy, Water, Sanitation, etc.

Work

With the support of a partner community based organization CBO, HGVS has set up a small fruit processing unit at Ukhimath (district Rudraprayag) as an income augmentation measure for the villagers, especially women, affected by the June 2013 Kedarnath disaster. This has led to better utilization of local fruit produce, reducing wastage and improving returns. During local meetings in the villages of the Ukhimath area after the June 2013 disaster, many women showed interest in weaving and learned to use a knitting machine. On their demand, HGVS and a local village group decided to purchase six knitting machines for the area.

The first training program on knitting machines started in April 2014, in which 20 women received training at HGVS, Ukhimath. Introduced various pieces of training on organic composting and farming practices to increase the production of crops and improve the potential fertility of the soil. Biomass today accounts for one-third of all energy used in developing countries. It is called 'poor-man's oil' because of its direct use for cooking and heating. The bio-briquette is better than the traditional practice of fuel wood burning as it is smokeless and

“**THROUGH
EDUCATION
AND ACTION,
COHESIVE
COMMUNITIES
CAN BE
EMPOWERED
TO CREATE
SUSTAINABLE
LIVELIHOODS
FOR THEMSELVES
AND FOR FUTURE
GENERATIONS”**



gives collective heat in a traditionally designed stove, locally called angeethi. Using bio-briquettes can help in checking the felling of trees for fuel wood by villagers. Mushroom farming is also introduced to the people. This is especially because mushrooms need minimum care, investment, and technology. One can start mushroom cultivation at home.

Fundamental Challenges

- Frequent natural calamities in Ukhimath area, including earthquakes, landslides, forest conflicts, and forest fires
- Agricultural land is scattered and terraced
- Much agricultural land is not fertile anymore
- Employment opportunities are very limited
- Education and health facilities are very poor
- Excessive alcoholism frequently leads to violence against women and children
- Illegal mining and deforestation destroying the green cover



Top

Himalayan Gramin Vikas Sanstha (HGVS), have set up a small fruit processing unit at Ukhimath (district Rudraprayag) as an income augmentation measure for the villagers, especially women

Beneficiaries

Uttarakhand Mahila Parishad (Uttarakhand Women's Federation)

Uttarakhand Mahila Parishad-UMP, was set up in 2008 and supported by Uttarakhand Sewa Nidhi Paryavaran Shiksha Sansthan Almora. The joint efforts of organizations and rural women to provide a state-level organization promoting collective action to achieve gender equality and justice. In a village, all women are members of a single group called the Mahila Sangathan or the whole village group (WVG). Efforts are made to ensure that irrespective of caste, class, and other disparities, all women join together to form one group and a sense of bonding and solidarity prevails. UMP is the largest network of rural women's groups in Uttarakhand and hosts programs that enable women to invest in social relations to gain access to and have control over

resources at household, community, regional, and state levels. The network brings together WVGs of each cluster of villages to form Kshatriya Mahila Sangathan which consolidates at the state level to form UMP.

Kishori Shikshan (Adolescent Education)

This programme, meant especially for girls, is for the age group 11-19 years, focusing mainly on life-skills and gender equality. Groups of adolescent girls are formed, which participate in workshops on different issues relevant to their lives and to the village. These programmes focus on developing an understanding of issues like self-development, emotions, gender and caste, challenges faced by adolescent girls, violence against girls and women, dowry laws, the government's Right to Information provisions, role of community cooperation and cohesion. Also, girls are encouraged

Top & Bottom

Creating awareness of health issues through puppet shows, plays, songs, village meetings, exhibitions, and workshops



to improve their educational status. Drop-out girls are encouraged to re-enrol themselves in schools and efforts are made to ensure that all girls attend and continue schooling.

Health Care and Education

Local community-based organisations are supported by HGVS, to create awareness of health issues through puppet shows, plays, songs, village meetings, exhibitions, and workshops. The girls and women engaged in this work are trained. In most cases, these activities represent the first ever attempt to discuss health and nutrition issues, particularly reproductive health, openly in a village forum.

At the beginning of the program, a survey of the health status of children is done, and some of the factors that affect children's growth are identified. This generates a lot of interest and discussion in villages. The use of local

herbs and home remedies is promoted in remote villages where no proper health care facilities exist. To facilitate meetings in villages, posters and folders relating health to nutrition and hygiene have been developed. Written in simple language these folders have become very popular in villages.

Environmental Education and Eco-Work

This program focuses on village land rehabilitation and sustainable management. Tree plantation in village common land and tree nurseries for rehabilitation of the village support areas, which is called Eco-Works, is a popular activity. Under the guidance of HGVS, many village communities have banned or restricted the traditional practice of free grazing of cattle, to ensure the protection of the plantation sites. Since the active participation of the local village community is a strong feature of all these Eco-Works, the nurseries and afforestation are carefully protected by them.



Gram Pustakalaya, Gram Sikhsan Kendra (Village Library)

Even small libraries in remote villages create an appetite for books and reading among the young, where opportunities for getting suitable reading material are otherwise limited. The village libraries are housed in a room (usually panchayat-ghar, Jan Milan Kendra) in the village, provided by the community at no cost. The library normally opens for 2 hours in the evening daily. There are about 300 books for different age-groups, newspapers, magazines, sports-goods and a librarian (generally a local girl). The programme was started in March 2012 with 05 libraries.

Computer Literacy

The computer literacy programme was started in 2014 on an experimental basis in villages. In our computer training centre hosts 2 PCs, one laptop, inverter with batteries, printer, computer tables and chairs. The objective is to impart basic computer skills to rural children to –

- Bridge the urban and rural divide in the field of information technology
- Access to information to improve life in village

A two months course (free of cost) has been developed to make children computer literate. All children in the villages and its surrounding areas attend the centre, in batches. The programme makes children familiar with basic computer hardware and its components, maintenance, word processing, Hindi and English typing, painting, printing a document etc. Each child gets at least 60 minutes to work freely on a computer.

Sanitation

The need for latrines (privies) to improve sanitation and convenience has been increasing rapidly as a result of campaigns mounted by CBOs and women's groups supported by us. The support for these programmes consists of a promotional communication plan and provision of small grants for the purchase of building materials, the actual construction work being the responsibility of the beneficiary household itself. Often, the members of the women's groups and the CBOs help each other install latrines in villages. This support is also extended to widows, deserted women, female headed households, single women and elderly people in the village who have limited resources and need help in installing latrines. For example women help each other in collecting construction material (stones, sand etc.) locally and in digging pits. The usefulness of these latrines is so manifest, that in many villages families are constructing them on their own with no assistance at all. So far, about 56 latrines have been installed in 12 villages with our support.

Future Plans

They plan to generate more livelihood options for the people of Ukhimath. They want to bring about livelihood improvement for scheduled castes by introducing traditional Bamboo (Ringal) weaving.

Top

Village libraries are housed in a room usually Panchayat Ghar, Jan Milan Kendra in the village, provided by the community at no cost. A computer literacy program was also started in 2014 on an experimental basis in villages



Key Innovations

- Training programs on knitting where women are trained to build vocational skills
- Fruit processing facility established to help villagers, particularly women, affected by the Kedarnath disaster
- Increased production of crops and soil fertility by introducing various organic composting and farming practices
- Regular monthly meetings in the village based on the needs of the village community
- Promote literacy and education for adult women, especially schooling and retention of girls
- Provided access to safe sanitation facilities for the poor, widowed, and deserted
- Regular preventive health care for women and girls





8 DECENT WORK AND
ECONOMIC GROWTH





Namita Tiwari

Social Entrepreneur

Uttarakhand has a unique and diverse folk art and painting tradition. Aipan is one of the major folk art forms of Uttarakhand's Kumaon region. Namita Tiwari, who belongs to Almora, Uttarakhand is an award-winning Aipan artisan. She has been practicing Aipan for the last 18 years and working towards promoting the traditional Kumaoni art, Aipan. In 2015, she established an NGO 'Cheli Aipan' to teach and inspire young women to understand the importance of learning the art form of Aipan.

Namita and her organization in Uttarakhand are reviving lost interest in traditional folk art amid the expansion of contemporary Indian art to global markets. She has been encouraging and teaching young girls to paint Aipan, and helps them earn a livelihood through this art. Her goal is to carry the legacy of these traditional art forms and encourage students to see their cultural identity in them. Her life lesson is that one must earnestly believe in one's work. They make paintings, waistcoats, saree borders, suits, pen holders, cups, etc, using Aipan art.

Aipan is one of the traditional forms of rangoli of the Kumaon. It is widely used as a decorative art form to embellish floors and walls at places of worship and entrances to homes. Traditionally passed down from mother to daughter, aunt to niece, Aipan is painted with a traditional terracotta base and white motifs adorned with rhythmic geometric patterns. All motifs have deep

symbolism, but Aipans painted for specific deities have a particularly profound meaning. Several of the patterns are significant from a religious perspective and are used often during marriages, thread ceremonies, naming ceremonies, etc. The art form is also known to offer protection against evil. Some of the common designs are laxmi chauki, saraswati chauki, swastik, vivah chauki, astkamal, jyoti patta, janeu chauki, etc.

Work

She started making Aipan in various products like diaries, file folders, cushion covers, bed sheets, woollen shawls, saris, candle-holders, wall clocks, etc., in 2013 and through her organization Cheli Aipan since 2015. So far, 70 products related to this folk art Aipan have been created as Aipan products. Different departments are organizing seminars, training, and exhibitions to recognize this folk art at a wider level. Along with this folk art is also being promoted through the medium of various NGOs. This is so that information about this folk art can be made available to the common people.

Several efforts have been made to promote the art through her organization, Cheli Aipan. With the help of Indraprastha College for Women, Delhi, the products of Aipan Bawar Folk Art were sent to the United States of America in the year 2016. The Cheli Aipan Society received the profit from the sale. In 2018, under the support of the Fuel Institute, three days of training in folk



**ONE MUST
EARNESTLY
BELIEVE IN THEIR
WORK”**



art Aipan were conducted in Dehradun and organized for foreign citizens. Under Jan Shikshan Sansthan, New Delhi, the training in Aipan art was conducted in different schools in different states like Sikkim, Goa, and Assam. A short film produced by Fuel Sanstha Dwar on the work done by Namita in the field of folk art was telecasted by the Government of Uttarakhand in the year 2019.

She also served as a trainer for workshops on folk art at the country's major educational institutions like IIT Roorkee (2015) and National Institute of Fashion Technology (NIFT) in New Delhi (2019). As part of her

Fundamental Challenges

- Folk art is disappearing from households
- Uttarakhand cultural practices have lost identity in new generations due to lack of a connection
- Preservation and propagation of ancient folk arts is crucial to their survival
- Raw materials are harder to find
- Very small market to sell the manufactured products
- People unwilling to invest time and resources in art related ventures



efforts to promote folk art, she received the second prize from Uttarakhand state in the field of handicrafts in the year 2013.

Namita participated in exhibitions organized by the Handicraft Office, Almora, and District Industries Center in places like Delhi Museum, Dilli Haat, Lucknow, Kanpur, etc., to promote folk art. District Industries Center Almora also awarded her the first prize in the handicraft sector for 2012-13. The Cheli Aipan Society sends products related to this folk art to all the districts of Uttarakhand and many places in the country.

Beneficiaries

In 2015, on the instructions of the District Magistrate of Almora, Cheli Aipan Society was formed under Namita's chairmanship under the District Industries Center Almor Bawar Almora Aipan Shilpkala Co-operative, which was inaugurated by the then Chief Minister, Hon'ble Shri Harish Rawat. Since the formation of Cheli Aipan Society, this folk art, which was earlier limited to a particular caste and region, has been propagated in different communities and areas of the society and trained the women and girls of the house in this folk art. By connecting them with employment. So far, more than 7500 women of different fields have been made self-employed by giving this training to more than seven thousand five hundred women in Cheli Aipan Society.

Future Plans

Namita plans to give recognition to the folk art of Aipan at the national and international levels. Her goal is to bring this art form to a large audience to encourage women to realize their potential by becoming self-employed and enhancing their empowerment through employment focused training programs.



Right to Left

Namita teaches Aipan art to many women and students in Almora, Uttarakhand. She wants to carry the legacy of Aipan and encourage everyone to see its values and cultural identity



Key Innovations

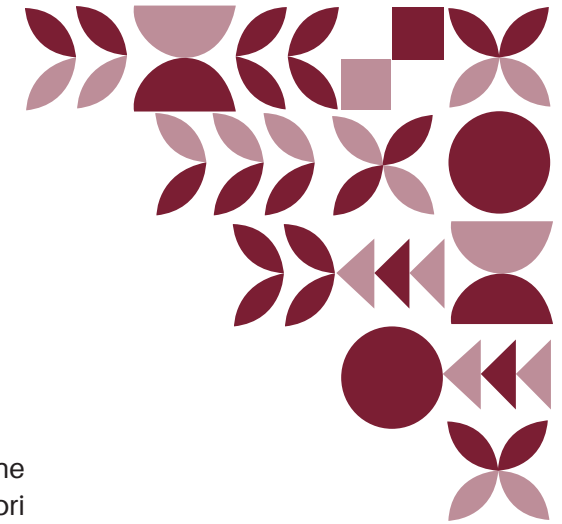
- Revived the art of aipan comprehensively, with new innovations in material and application
- Promoted revival of cultural traditions amongst the local community
- Established NGO 'Cheli Aipan' to teach and inspire young women to understand the importance of learning the art form of aipan
- Encouraging and teaching young girls to paint Aipan, and helps them earn a livelihood through this art
- Promote the legacy of traditional art forms and encourage students to see their cultural identity in them





8 DECENT WORK AND
ECONOMIC GROWTH





Parvatiya Chai Utpadan Swayat Sahkarita (Berinag Tea)

Social Entrepreneur

In the Pithoragarh district, Nayal village is known for producing tea in the Pankhu region, a remote area in the Berinag block. It began in 2011 when Vinod Karki, a progressive farmer, started planting tea saplings on his barren land. Over 12 hectares of land are under tea cultivation in the area, with over 30 farmers participating in the program. In addition, these tea gardens employ 18 workers, including eight women.

Vinod Karki had 8 hectares of land lying unused. So, in 2010 he signed an agreement with the Uttarakhand Tea Board. As part of the agreement, it was decided to develop it into a tea garden and cultivate tea over the next seven years. In 2018, after the completion of seven years, the board returned the tea garden to him. He then approached the Tea Board of India at their Kolkata office. With their help and that of other farmers in the area, he founded the Parvatiya Chai Utpadan Swayatt Sahakarita Samiti. The board gave them a licence for tea processing. Subsequently, he started a tea manufacturing cooperative unit with the brand name of 'Berinag Tea'.

Work

Berinag Tea was known for its flavour, aroma, and colour during the British era. It was a highly sought-after tea in London tea houses till the early nineties. It was made from

the leaves of a wild plant that grew in many regions in the Himalayas. It is now only grown in Berinag & Chaukori (small hill stations in the district of Pithoragarh), that are famous for tea gardens established by the Britishers.

Till the late 1980s, Berinag tea was much sought after because of its unique light taste and colour in many western countries. In the 1990s, tea production was greatly reduced; however, it has now been restored by collecting leaves from the tea garden in the village Nayal Pankhu of Berinag and nearby areas. The tea in the region is organic and has a special flavour and aroma. The tea leaves which are generally plucked in Pankhu of Berinag are used for processing green tea (whole leaf tea), black tea (orthodox whole tea leaf), and nettle leaf tea. In the case of loose green tea leaves, they are produced organically, giving them an advantage over others in terms of quality.

The leaves are hand plucked by tea-pickers, who are trained to discern and carefully pluck and preserve the leaves. Freshly plucked tea leaves are spread and laid out indoors to remove the moisture content. Withering is essential in keeping the leaf supple for its other processes. After the withering process, the leaves are rolled to the desired shape using machines or hand



**WE
TRANSFORMED
BARREN LAND
INTO A TEA
GARDEN!
BERINAG TEA
HAS COME BACK
TO LIFE AFTER 50
YEARS!”**



pressing. Oxidising is a process that helps the tea leaves attain their ultimate flavour, colour, appearance, and aroma. The level of oxidation determines or distinguishes different types of tea. The oxidised teas are further dried at optimum temperature before they are sent for final packaging and transportation.

Fundamental Challenges

- Small land holdings in hilly terrain pose a challenge to growing tea
- Animals like monkeys, wild boars, and rodents attack crops directly due to drastic climatic changes and proximity to the forest
- Economic challenges to farmers to continue farming as a result of the substantial losses in livelihood resources
- Due to unemployment, locals have migrated to cities in search of employment and earning opportunities





Top

Berinag tea is made from the leaves of a wild plant that grows throughout the Himalayas. It was grown in the most eastern Himalayan district in the state of Uttarakhand, but is now only grown in Chaukori which is famous for its tea gardens established by the Britishers

Berinag's Green Tea contains no artificial flavours, additives, or preservatives and is 100% natural and pure. As far as its effect on the body is concerned, it has been noted that it contains antioxidants, which makes it non-cancerous. In addition to lowering blood pressure, it also has anti-aging properties. When it comes to black tea, the tea leaves are harvested by trained professionals to ensure the highest quality leaves are extracted.

Orthodox tea preparation is comparably more tedious and time-consuming and is full of antioxidants, thus anti-cancer in nature. It also lowers blood pressure, improves heart rate, and strengthens the human gut. On the other

hand, Nettle leaf tea is also known as 'Bichhughas' in the local Kumaoni language and 'Kandli' in Garhwali lingo, thus spreading far and wide in the entire Uttarakhand. Likewise, it is a whole-leaf tea with no artificial flavours to boost its ergonomic value. This tea incidentally relieves seasonal allergies of all kinds, lessens joint pains, improves skin and hair growth, and boosts your immunity. Whole leaf tea and broken tea leaf are the two types of tea leaves that are ideal for processing to produce the most superior quality of tea. As the name suggests, whole leaf tea preserves the entire tea leaf during production. As this tea takes the longest to infuse, it is often said to possess a high level of quality and depth.

Left to Right

The tea is picked by hand and stored in bamboo baskets tied with cloth to the pickers' backs. During withering, freshly plucked tea leaves are spread and laid out indoors or outdoors under the sun to remove the moisture, making them supple and flexible so they do not crumble during further processing



Analysing fragments of the issue and challenges led to the following solution:

- Building a unique product brand highlighting its medicinal and herbal qualities
- Performing extensive market research to develop original products made from nettle soup, flavoured teas, etc., leveraging the plant set-up for fine-quality processing
- Establishing online (Amazon, Flipkart, Snapdeal) and offline (exhibits, seminars & events) channels and platforms
- Skill development and technology enablement, feedback mechanism to the cooperatives
- Developing tea tourism along the foothills of the upper Himalayan region where our tea estates are located
- Focusing on the integration of other ancillaries at later stages

Beneficiaries

The tea manufacturing unit is helping people who have migrated from the area return to their roots. Rajan Ram,

who came back to the village from Delhi during the COVID- 19 induced lockdown, decided to stay on after being employed in the tea manufacturing unit. It was convenient that now he didn't need to go to Delhi or any other big metro city to earn a living since there was plenty of work in his village. Tea manufacturing is also helping in:

- The migration of villagers and the desertion of nearby villages (600-700) were controlled
- Employment to 20 persons involved in the day-to-day activities of the processing plant and maintaining the tea gardens
- Many tourists visited (after COVID-19) our tea gardens and mini tea factory
- Tea cultivation at the mass level motivated the community to farm cash crops, especially spices, lemongrass, roses, stevia, chamomile, rosemary, etc. at a small level
- Encouraging desertion and provoking entrepreneurial zeal in villagers by providing them with a learning platform and self-employability
- Several individuals started growing tea near Pithoragarh, Almora, and Bageshwar districts in Uttarakhand, including Lothal and Chakori

Future Plans

Vinod aims to achieve more tea production in the next two years, integrating with small tea growers to meet market demand on a wider scale and reach vast markets (including international destinations) through massive marketing and promotional activities.

He plans to support newcomers and entrepreneurs in developing land and tea cultivation through training and consultancy and integrate with online sales channels like Amazon, Flipkart, Snapdeal, etc.



Key Innovations

- Vinod Karki, a progressive farmer, started planting tea saplings on his barren land in 2011
- Revived the Berinag Tea of the British era that was known for its flavour, aroma, and colour
- Have generated employment opportunities at many levels for the locals, from the cultivation to the processing
- Built a cooperative society by bringing together small scale farmers, SHGS, and individuals capable of skilling, technical expertise
- Built teams for sales & marketing of traditional local products







9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE





Manmohan Bhardwaj

Social Entrepreneur

The owner of the Nature's Bestow is Manmohan Bhardwaj. The Nature's Bestow's mushroom plant was inaugurated in February 2018. They help the local farmers and laborers while operating the best mushroom growing facility in the area.

They have two mushroom producing facilities that can generate 4 to 5 tonnes of mushrooms daily. Their mission is to offer high-quality mushrooms to every part of India and to Provide employment for every household in the area in an effort to make India self-sufficient.

Work

They aim to produce healthy and delightful mushrooms while maintaining the wellbeing of their clients, staff, and farmers through integrity, green practices and healthier growing practices. Through its automated plant in the state of Uttarakhand, which generates 4-5 tonnes of fresh button mushrooms every day, Nature's Bestow aspires to provide the greatest quality button mushrooms.

Mushrooms are full of proteins and vitamins which boosts human body immunity providing Vitamin D. Their manual plant has 16 rooms and a substantial amount of manufacturing along with physical inspections. Their second plant is an automatic facility with 14 rooms that require little human intervention, improving the quality of the mushrooms. They sell mushrooms on websites like BigBasket, Grofers, FoodWorks and Country Delight.

Some of their regular clients are outside of Uttarakhand. They grow mushrooms to technically develop the people of the village. They use mustard straw that was thrown in the garbage. The village's residents have been technologically advanced and provided with jobs that has helped them earn their living.

The final compost of mushroom sacks is now used by local farmers as khaad, which has a higher nutritional content than the traditional khaad that had to be purchased from outside the rural area. They assisted more individuals by providing work at their newest food processing facility, M.B. Foods, which opened in August 2022.

Rural areas had no chance of growth in the past, but as living standards have improved, they are now gradually growing every day. Mushroom growth will improve and increase due to the new plants, generating many jobs in the region. Also, the poly houses have the ability to produce more than 4 tonnes of vegetables every day, which requires labor.

The food processing plant of M.B. Foods has put up food processing machines which need to be operated on a daily basis, leading to jobs and technical training for local employees. With both, the expansion of the mushroom plant and the continuous food processing line, growth in the area is ensured as more employees



**NATURE
ALONE IS
ANTIQUUE, AND
THE OLDEST
ART A
MUSHROOM”**



will be needed for job work and there will be a great impact on the employment levels of the rural area.

Their strength is that they manufacture many things like (compost, spawn seeds, mushrooms etc). Mushrooms are also supplied to Mandis of Dehradun, Delhi and the local markets of Uttarakhand. Growing mushrooms have helped him and the villagers succeed. They have provided employment to about 300 villagers.

The food processing facility required technical personnel who were trained in the rural areas. Direct

Fundamental Challenges

- Setting up the plant in a rural area with very few amenities
- Developing the rural area manpower and skilling them on using machines, managing the food processing plant, growing mushrooms etc.
- Poor infrastructure in the rural areas like very few roads and no workshops
- Dealing with naysayers who discourage others as well
- Poor quality mushroom seeds leading to poor crops





Top

Scenes from the Nature's Bestow factory

benefits for a better lifestyle were provided to the locals through the building of roads and the creation of jobs. The advantages provided had a favorable effect on the entire neighboring region. Now, family members support themselves and their relatives by working together, improving their technical skills, and knowledge of their local economy.

Beneficiaries

They gave employment to the rural areas, aiming for a self-sustaining Uttarakhand, and are always there for

their employees when they need financial help. They gave food packages and mushrooms to rural areas during COVID-19. They also provide a free ambulance service in the region for patients who need it.

Future Plans

They are planning to add more varieties of mushrooms, their goal is to deliver high quality mushrooms to different parts of India while staying true to their indigenous roots. They also hope to increase local employment opportunities and contribute to the future of the villagers.



Key Innovations

- Have set up two mushroom producing plants with a capacity of 4 to 5 Tons daily
- Poly houses with the ability to produce more than 4 tonnes of veggies every day
- Helped villagers set up the mushroom growing model
- Use of mustard straw agricultural waste in their cultivation
- Generated employment in the rural area by giving employment to more than 300 people in the region
- Involvement in the community, taking care of the needy and poor people





10 REDUCED INEQUALITIES





National Association for the Blind

Non-Profit Organisation

In the Kumaon region of Uttarakhand, there were no residential resource centres for visually impaired children where they could live and attend classes. Keeping in mind the difficulties of visually impaired children residing in remote rural areas in hilly areas with difficult geographical conditions, National Association for the Blind (NAB) was registered the institution as a state unit of Uttarakhand to set up a residential resource centre in 2003.

NAB had a humble beginning in a car garage with five visually challenged students. NAB's strength lies in establishing connections with the families of visually impaired people living in the interiors of the Kumaun region. They have created hope for the visually challenged. Now everyone believes that NAB students are capable enough and can live life with respect, dignity, and economic independence.

In the year 2005, with the vision of the then-District Magistrate Dr Rakesh Kumar, 0.63 hectares in Gaula Rokhar block were allotted to NAB on a 30-year lease for the above purpose, and the organisation worked hard in 2009 by constructing the first block of a residential resource centre for 05 visually impaired people.

In the resource centre, students were admitted to various schools in Haldwani to receive education alongside normal students. Currently, 444 students go to various

schools in Haldwani city for daily education and normal students. To provide facilities for the students, the institute has built separate hostels for boys and girls, over 30 toilets, a state-of-the-art restaurant, a dining hall, a tube well on the campus premises, a 2500 litre rooftop solar heater, a 5 KW solar power plant, a Braille Library, Talking Book Library, Braille Printer for publishing Braille Books, a Generator, a Plectalk system, and a Laptop system. There are additional facilities for providing courses in e-text to the students.

Work

The students have passed the Teacher Eligibility Test (UTAT) and the Central Teacher Eligibility Test (CTET) conducted by the Uttarakhand Board of School Education. The organization had to face many challenges from the very beginning. As of 2009, all NAB students attend government schools, along with the other students. However, they do not have the option of being trained by a special educator. They are responsible for submitting fees with normal students, while the library, computer lab, and parent association deposit money monthly. They must also deposit that money even if they do not use those facilities.

The Education department has given the right to keep one junior class student as a scribe for dictation during the exam, but because all the students examinations occur simultaneously, a scribe is difficult to find.



**CHILDREN WITH
SPECIAL NEEDS
ARE EQUALLY
ENTITLED TO
AN EXCITING
AND BRILLIANT
FUTURE”**



Vehicles, fuel, drivers, and assistants are also needed to transport and bring all the students to different schools in the city daily. This makes it necessary to be financially capable. An arrangement of about 44 special educators is in place to educate and train the students in mobility, orientation, braille script, cleanliness, and food. Also, the availability of skilled and trained staff for the care of students and the timely payment of honorarium.

Fundamental Challenges

- Very few dedicated institutions to impart education to the visually challenged
- No employment opportunities or facilities for visually impaired students, skilled workers and workers who have gone through personal crisis
- People lack the skills to become self-reliant by generating income by themselves and becoming self-sufficient
- Lack of life skills to make it on their own in the real world





Top

Many people visit NAB with their family and friends

Beneficiaries

Since NAB's establishment, the families of more than 2000 visually handicapped students have directly and indirectly benefited. All students receive full facilities, including housing, food, training, health check-ups, and the opportunity to attend school along with normal students.

The National Association for the Blind has admitted visually impaired and regular students in Uttarakhand. This is so the students can assess their inner qualities and learn about their capabilities. Additionally, the other

students in the class and society will be familiar with the activities of visually impaired students and their daily routines. This awareness created in society has encouraged members of other families to meet them and inquire about their talents.

Parents with children who are slow learners and mentally capable visit the institute and the students of NAB. This is so their children can excel just as the previous students of NAB. As a result of these activities, their behaviour towards disabled students has changed. Society gets information about their talent, which remains a matter

Top

NAB provides many resources including a Braille Library, a Talking Book Library, a Braille Printer to print Braille Books, a Generator, a Plectalk system and computers with audio functions



of curiosity for other normal students in the school. It is the mission of NAB to link students with the mainstream of society by educating them in a way that will make them self-reliant, thus contributing to the development of society and the country. Apart from this, District Disabled Rehabilitation Centres run by Social Welfare Department are being operated by the organisation so that District Disabled Rehabilitation Centre, Nainital, Pithoragarh, Bageshwar for other disabled persons by adopting this, all the activities carried out by the State and Central Government are provided to the disabled



persons of the districts, and through health check-up and awareness camps in remote rural areas of the hilly areas by the working employees, Unique Disability ID cards and identification of Divyangjan, etc. is operated.

Future Plans

NAB plans to develop a barrier-free model institute that provides free accommodation, food, education, training, and excellent technical facilities to many visually handicapped students.



Key Innovations

- Set up a residential resource centre for visually impaired children living in remote rural areas in hilly areas
- Haldwani centre has 444 students who attend various schools for their daily education
- Separate hostels for boys and girls at the institute, as well as over 30 toilets, a modern restaurant, dining hall, tube well on campus, a rooftop solar heater with a capacity of 2500 litres, a solar power plant with a capacity of 5 kW
- Educational resources include a Braille Library, a Talking Book Library, a Braille Printer to print Braille Books, a Generator, a Plectalk system and computers
- Help visually impaired children build life skills and confidence to make it on their own in the real world







12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION





Waste Warriors

Non-Profit Organisation

In December 2008, Jodie Underhill travelled throughout India as a tourist before volunteering at the Tibetan Children's Village in Dharamshala. She was always troubled by the garbage problem in India. Her love for India and her strong belief that change is possible served as her drive and inspiration. She never gives up, whatever be the challenges and however difficult things become. Every difficulty she encounters makes her more determined to prevail. In April 2009, she decided to take concrete action. Over 100 individuals volunteered in Jodie's first mass cleanup in McLeod Ganj, the residence of HH the Dalai Lama, demonstrating that she wasn't the only one who desired a cleaner India. Soon after, she established the non-profit Mountain Cleaners and began collecting waste once a week from Triund, a distant yet filthy mountain camp that is four hours by foot from McLeod Ganj. Volunteers were enlisted to clean the hiking trail and remove the backlog that had been dumped over the edge of the mountain, in addition to sorting and separating the rubbish from the tea shops and guest rooms. Today, Triund is regarded as one of India's most pristine hiking locations.

A three-hour hike from McLeod Ganj, the sacred Gaddi temple Guna Mata, received the model in April 2011. In November of the same year, Bhagsunag Waterfall, a well-liked tourist destination, received the model. To grow even further, Tashi Pareek joined the team in December 2011. Before going to Dehradun in May 2012 to start her

first urban project because of start-up financing from the Max India Foundation, Jodie conducted beach cleanups in Goa and helped with garbage management at the Sunburn music festival. Waste Warriors was established in November 2012 to reach out to all of India. They are vested to fight the war against garbage in India.

Work

They have gone a long way since their humble beginnings in volunteer-led cleanups in McLeod Ganj and Triund in 2009 when they were registered as an organisation in Dehradun. The team of about 100 people is working to develop economic, sustainable, and repeatable solid waste management solutions in three diverse areas: Dehradun, Dharamshala, and the rural areas surrounding the Corbett Tiger Reserve.

They work in a variety of residential and commercial settings, place a high value on changing attitudes toward garbage and the environment, generate jobs to raise the minimum wage, and improve the lives of waste workers and waste pickers. Through Corporate Social Responsibility (CSR) and Extended producer responsibility (EPR) activities, they also emphasise forming cooperative partnerships with businesses, institutions, and the government, as well as with other civil society organisations that are doing excellent work. Hundreds of homes and companies that take part in our door-to-door rubbish collection service have contributed



**SAY NO
TO MIXED
WASTE FOR
A CLEAN
AND GREEN
ENVIRONMENT”**



more than 2,868 metric tonnes of solid waste, which they have collected. In addition to 2.05 million square feet of landfill space, 198 tonnes of CO₂ and 79 tonnes of CH₄ are thought to have been saved because of their labour.

Their efforts ensure that the garbage doesn't spread dangerous diseases, spoil clean water supplies, burn in the air, or pollute the environment. Over these six years, they have employed more than 150 field workers, who have collected and separated more than 733 tonnes of recyclables that would have otherwise been discarded in trenching grounds or the open, highlighting the value of waste as a resource to advance society. Through income from recycling sales, marginalised ragpickers can survive. They have recruited over 8,000 volunteers to take part in over 500 clean-up drives in areas that are either experiencing a significant increase in tourists

Fundamental Challenges

- **Community engagement:** They visit door to door and do SWM seminars, presentations, nukkad Natak, cleanup campaigns, wall paintings, etc. with residents and households. Numerous areas run campaigns to encourage the recyclable nature of plastic garbage, such as Plastic Lao Mask Pao, Kooda Daan Abhiyaan, Young Warriors Club, etc.
- **Wet waste composting:** Composting workshops at the individual household level are held to instruct individuals on how to create compost from organic waste from kitchens and gardens, achieving a segregation level of up to 90% at the individual household level.
- **Segregated Dry Waste collection:** The group runs, oversees, and keeps track of the collection of segregated garbage from 2 wards and 35+ RWAs in Dehradun, 20 villages in Ramnagar, and 5 wards in Rishikesh; and 2 villages in the Uttarkashi, Doni, and Satta.





Top

Conducting cleanup campaigns in Schools

or have municipal collection systems that are being neglected. As a result, they have prevented hundreds of tonnes of littered plastic and glass from ending up on mountainsides, waterfalls, hills, and jungle trails, even parks and city streets.

They have also sponsored school education programs in which thousands of students from over 337 schools took part, and they have promoted public awareness on trash segregation at source and composting in over 7000 households through seminars and door-to-door community participation. The public is taught the value of responsible purchasing and sustainable urban living through these re-sensitization campaigns. They run 3 vans in Dehradun to collect segregated waste from more than 1200 businesses, and they've established 6

SHGs of rubbish pickers with a total of 52 members. In Sahastradhara, Dehradun, they maintain the lanes and tourist-use dustbins in addition to collecting rubbish from more than 80 businesses and 100 houses.

Around Govind wildlife sanctuary, 250+ households now do source segregation and pay user fees for the first time. Around Corbett, they have collected 474 MT of waste. Since 2013, they have collected 474 MT of garbage around Corbett, and currently, four SHGs are helping to support 16 rural communities with Solid Waste Management (SWM). The success of Waste Warriors is measured by factors such as the participation of the community, the amount of waste handled, the involvement of households and companies, and the rate of source segregation.

Top to Bottom
Waste Warrior volunteers



Beneficiaries

They support municipal initiatives for door-to-door collection of dry and wet waste that has been segregated, also helping local informal trash workers receive official recognition, education and integration into the Solid Waste Management (SWM) system. They conduct cleanup campaigns with the aid of volunteers from the area, students from surrounding schools and colleges, and Government workers like forest rangers. They ensure that visitors to these popular destinations have access to prominently marked trash cans that are frequently emptied and cleaned. They also organise daily dry waste collection services for homes and companies that they work with, to spread awareness and educate them about waste segregation.

Future Plans

Their goal is to serve as catalysts for the development of systems for better waste management in urban,

peri-urban, rural, and environmentally sensitive areas throughout the state of Uttarakhand. They will create an ecosystem that can manage and address the waste problem and related issues in the area we work in with the aid of decentralised waste management centres, community involvement, behaviour change initiatives, support from local administration, a network of formal and informal waste management, and their expertise.

To connect the formal recycling sectors, they plan to create a network of dry waste collection facilities and MRFs throughout the state of Uttarakhand. To make Uttarakhand the cleanest state in the nation and raise the overall ranking of Uttarakhand's cities in the Swachh Sarvekshan, they aim to develop entrepreneurs from the informal waste sector, create synergies with government schemes, provide support via institutions like EPR and CSR, advocacy, and community engagement.



“

Key Innovations

- Supporting municipal initiatives for the door-to-door collection of dry and wet waste that has been separated.
- Helping local informal trash workers receive official recognition, education, and integration into the SWM system.
- Activities like clean-up drives, e-waste and plastic recycling drives, mural painting, and creative upcycling events.
- Conducting cleanup campaigns with the aid of volunteers from the area.
- Team of about 100 people is working to develop economic, sustainable, and repeatable solid waste management solutions in three diverse areas: Dehradun, Dharamshala, and the rural areas surrounding the Corbett Tiger Reserve.

”





13 CLIMATE ACTION





Amit Kumar Jain

Social Entrepreneur

Amit Kumar Jain is the owner of Eco Green Industries. Located in Kashipur, it is Uttarakhand's first biotechnology company founded by a group of environmental entrepreneurs. The main goal is to create high quality solutions to the problem of polluting plastics made from petroleum. Eco Green Industries creates 100% bio-degradable, bio-based goods and materials for bio-plastics that are cost-effective, sustainable, organic and natural alternatives to plastic.

Work

Eco Green Industries manufactures compostable bio-degradable bags and allied products, which can decompose in 6 months when they come in contact with soil or humid weather. They become compost and help fertilize the land. The composition of organic matter helps in reducing the carbon footprint and toxins in the environment.

Compost biodegradable bags are created from many types of starch by-products, including maize starch, tapioca starch and PLA. Starch is a naturally occurring, organic substance that is derived from a variety of agricultural products, including rice, potatoes, and maize.

When compared to petroleum products, which take thousands of years to decompose in the environment, biodegradable materials can decompose in six to ten

months, depending on the local climate. They are also healthy for the environment and easy to extract.

The extraction of petroleum products has a terrible impact on the environment, since it depletes natural resources and wrecks the ecosystem. Today they manufacture composted bio-degradable carry bags, residential and commercial garbage bags, nursery bags, POP bags, industrial linear bags, linear bags, raincoats, pouches, ice bags, and mulch film for agricultural use.

Bio-degradable & compostable plastics and packaging take very less time to break down after being discarded. This means they will be absorbed into the earth and there will no longer be tons of plastic dominating our landfills.

These plastics are a completely renewable resource. They disintegrate because they are an organic compound. Trees, plants, grass, and other organic things that break down are all considered to be bio-mass.

Bio-degradable & compostable plastics are good for the environment because there is no harm done to the earth. There are very few greenhouse gas and harmful carbon emissions in this process. Regular plastics need oil for their manufacturing, which pollutes the environment.

Bio-degradable plastics need less than half the energy to produce than their non-biodegradable counterparts.

“
ELIMINATING
PLASTICS CAN
CONTRIBUTE TO A
BETTER PLANET”



This means that it is possible to make twice the amount of biodegradable packaging and biodegradable bags using the same amount of energy.

Materials that are fully biodegradable are used to make biodegradable polymers. They can decompose considerably more quickly as a result, and recycling

Fundamental Challenges

- Unrestrained sale and supply of single-use plastic
- Setting up a manufacturing unit for biodegradable products in Uttarakhand from scratch was very challenging
- Convincing existing plastic bag suppliers to switch to biodegradable bags is very difficult
- Plastic bags are highly polluting to both land and water, and they take centuries to decompose
- Plastic waste is consumed by animals
- Micro-plastics have now filtered into our soil and groundwater



them uses less energy. Biodegradable plastics have the advantage of being reused more effectively.

Traditional plastics include a lot of dangerous chemicals and by-products that are released as they break down. Biodegradable plastics are entirely harmless and contain no poisons or chemicals. This plastic decomposes and is absorbed into the earth without harm. As the amount of harmful plastic in the environment is increasing and will continue to do so at this rate, these advantages of bioplastic are extremely important.

Using biodegradable plastics will reduce the nation's reliance on foreign nations for fossil fuels. The Middle East provides the majority of the oil required to produce ordinary plastic. Because domestic biomass materials are used to make biodegradable plastics, there is less dependence on foreign oil and a home alternative is provided.

Beneficiaries

Use of these bags has vast benefits for all sections of society and across all sectors of the industry. The bags made of bio-plastics are 100% bio-degradable. They are available in different sizes and makes. The potential of reuse as a bio-waste bag is another benefit of single-use bags. Products can be used in departmental stores, hotels, restaurants & shopping malls.

Future Plans

Their goal is to expand consumer awareness of compostable products and make more such products available. They want to introduce different alternatives to plastic, such as glass water bottles, bio-degradable cutlery, straws, spoons, forks etc.



Top

From raw material to finished products



Key Innovations

- 100% biodegradable, starch-based bioplastics that are cost-effective, sustainable, organic, and natural alternatives to plastic
- Biodegradable tote bags for use in agriculture, nurseries, industrial applications, stores and homes
- Set up a manufacturing unit of compost biodegradable products in Uttarakhand
- Bags can become compost in 6-8 months after use, when they come in contact with soil or water





15 LIFE ON LAND





Dinesh Gururani

Social Entrepreneur

Dinesh Gururani works as a manager in KMVN, Pithoragarh and is the state president of the Joint Employees Federation Kumaon-Garhwal Mandal Development Corporation. He has been planting trees for the protection of the environment and bio-diversity at the individual level for the last two decades, as well as connecting society to this work, motivating and taking forward plantation as a campaign. He started the Save Himalaya Campaign named 'Ek Paudha Dharti Maa ke Naam' in the year 2005.

Under this campaign, plantation activities are done at events like marriage ceremonies, birthday ceremonies, any political activity, birth or death, etc. Dinesh Gururani considers his success a result of the support and blessings of well-wishers including mother Lilavati Gururani, father Tara Dutt Gururani, and wife Niranjana Gururani.

Work

More than twenty thousand saplings have been planted by Dinesh Gururani in Pithoragarh district. While more than thirty five thousand saplings have been planted by as many people. Over fifty five thousand saplings have been planted till date. The registration of the persons involved in the campaign is done and the complete details of all are recorded. So far more than 80 thousand people have registered. People are also required to take oaths regarding environmental protection.

Kailash Mansarovar Yatris were also connected with the cleanliness program. Mansarovar Yatri Vatika was built on some barren land in Pithoragarh. Students training in adventure sports were also involved in the cleaning campaign on the banks of the rivers. Under the Save Himalaya campaign, more than 1,00,000 people took oath and were registered.

As a new campaign, 5 saplings are planted by each Yatra team going for Adi Kailash Yatra in collaboration with ITBP in the Kalapani temple complex located on the Mansarovar Yatra route. Saplings have also been planted in Siddheshwar Baba Mandir, Masan Baba Mandir, Gurna Devi Temple premises and also, by roadside dhabas. On the 32 km route from Pithoragarh to Ghat, his family campaigned and planted saplings. Under the Save Himalaya campaign, tourists, school students, and youths are receiving various knowledge and important information about the plantation.

Beneficiaries

Plantation work has been done by a variety of Government and non-government organisations in the past, but these campaigns are different as the person is not emotionally attached to them. In this case, when a person plants a tree on his birthday, marriage anniversary, or in memory of his beloved they are emotionally attached to the plant and will protect it as a result of this attachment. The Kailas Mansarovar Yatra



**SOMEONE IS
SITTING IN THE
SHADE TODAY
BECAUSE
SOMEONE ONCE
PLANTED A
TREE”**



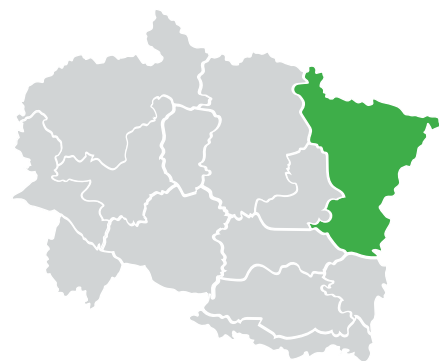
Smriti Vatika in Pithoragarh is one such example, where pilgrims planted saplings and many of them returned to take care of them; those who could not come, contacted Dinesh Gururani for help.

Future Plans

To further expand this campaign in the future, it is proposed to constitute a team of volunteers. These volunteers will be from the entire Himalayan region and will work to take this campaign forward in their respective areas.

Fundamental Challenges

- Uttarakhand is especially prone to environmental degradation, biodiversity loss, and global warming
- Himalayan regions have been shown to be one of the most adversely affected regions from global warming
- Individual efforts along with institutional efforts are required
- Reforestation is seen as a responsibility of the Government
- People are losing cultural connection with the environment





Key Innovations

- Started the Save Himalaya Campaign named 'Ek Paudha Dharti Maa ke Naam' in the year 2005
- Encouraged the practice to plant a tree on occasions such as marriages, birthdays, political activities, births, or deaths
- Planted more than 20 thousand saplings in Pithoragarh alone
- Till date over 35 thousand people have planted more than 35 thousand saplings







16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS





Rural Environmental and Education Development Society

Non-Profit Organisation

Rural Environmental and Education Development Society (REEDS) established itself as an organisation committed towards welfare and empowerment of Children in 2001. Indresh Lohani is the founder of REEDS. The organisation has worked with multiple stakeholders governmental bodies, media, national NGOs and multilateral organisations to create a platform and an understanding towards this marginalised and voiceless section of the society.

In May 2004 office bearers of REEDS decided to survey the Tanakpur region of Champawat district, located near the India-Nepal border, for the state of child labourers, the majority of which are coming from Nepal in search of occupation. When the organisation did a preliminary survey on this, very worrying results came out. It came out that women and children were being smuggled on the pretext of work, and were being pushed into prostitution. After this, the organization developed a strategy and started work on how to reduce and prevent incidents of human trafficking.

Work

The organisation was supported by Manav Seva Sansthan Service, Gorakhpur and a service vigilance cell was set-up near Banbasa bridge near the international border. After rescuing and counselling many such women and

children, people were rescued and safely transported to their native places. Approval of the Ujjwala project of the Ministry of Women and Child Development of the Indian Government was received and from July 2010, a rehabilitation centre was set up.

Till present, 662 women and 323 children have been safely handed over to their homes. They ensure that underprivileged children can survive during this period of transition. Their committed staff works relentlessly to educate the community and give children and their wardens access to safety measures.

The district centre of Child Helpline India Foundation in Champawat started in October 2018. The Child Helpline India Foundation and REEDS are partners. The Team works tirelessly to provide helpline services. Their staff plans outreach in both urban and remote areas of the district. They conduct outreach with banners, posters, and pamphlets and also through meetings, community discussions, and door-to-door home visits.

Child Helpline 1098 gets hundreds of calls for help, most of them regarding sponsorship. Parents of children living in remote areas of the district are poor and want economical support for their children. Under the sponsorship program of ICPS, those children who



**SPEAK UP
IF YOU WANT
TO BRING
CHANGE
TO THE
WORLD”**



have lost their father can get economical support from the Government. Child Helpline Champawat makes efforts to connect needy children with this scheme. Medical help, protection from sexual abuse and missing children are also reported in calls. The organisation conducted meetings with various stakeholders who formed a community vigilance group. The Champawat district, which borders Nepal, is where REEDS' main activities are concentrated. The group this year rescued victims trafficked from Nepal, with the assistance and promptness of CVG, Anti Human Trafficking Police, and Uttarakhand Police.

The protective and rehabilitation home operating in the border area provided shelter to the victims as an immediate relief measures. These victims were sent back home after the Nepali Government verified their addresses. REEDS scheduled routine meetings with the

Fundamental Challenges

- Women and children are being smuggled on the pretext of work like wages etc and are being pushed into prostitution
- Vulnerable sections of society are even more at risk
- Rehabilitation is a challenge when often, the victim's family are not ready to accept them back into their homes
- The organization developed its thinking on this subject and started work in this direction on how to reduce and prevent the incidents of human trafficking.
- Despite being approved by the Government of India, organisations face severe shortage in funding grants





Top

Program conducted for the awareness of Childline 1098

Government of Nepal. REEDS provides a house for the rescued people. When they can not be with their family after their rehabilitation immediately.

The major focus areas of the rehabilitation team are housing, amenities, health, and education. Regular health checks of the victims living at the centre are performed by the centre's doctors, and if necessary, they are sent to other medical facilities for consultation.

Beneficiaries

REEDS have a Child Helpline Team that works nonstop to provide helpline services. They help poor kids and

rescue them from sexual assault, track missing children and support those women and children who have been misled by others. REEDS also provides safe houses for the rescued people and medical care to the victims.

Future Plans

REEDS has plans to work against prostitution in affected districts like Udham Singh Nagar, Dehradun, Haridwar, and Nainital. They also plan to put efforts on wider campaigns for women and children rights.



Key Innovations

- Till date, 662 women and 323 children have been safely handed over to their homes
- Child Helpline Team to provide uninterrupted services
- Aid poor children and protect them from sexual assault
- Help track missing children for families and communities
- Network with multiple stakeholders like governmental bodies, media, national NGOs and multilateral organisations





16 जुलाई 2010 से 31 अक्टूबर 2022 तक कुल संरक्षित लाभ

कुल संरक्षित किये गये लाभार्थियों की संख्या	999
महिलाओं की संख्या	668
बच्चों की संख्या	331
नेपाल प्रवासन/परिवारों को सुपुर्दे किए लाभार्थियों की संख्या	744
महिलाओं की संख्या	482
बच्चों की संख्या	262
भारतीय प्रवासन/परिवारों को सुपुर्दे किए लाभार्थियों की संख्या	255
महिलाओं की संख्या	181
बच्चों की संख्या	72
अन्य पुनर्वसिता किये गये कुल लाभार्थियों की संख्या	02
महिलाओं की संख्या	02
बच्चों की संख्या	00
जीवन में निधनरत कुल लाभार्थियों की संख्या	00
महिलाओं की संख्या	00
बच्चों की संख्या	00



16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS





Santosh Kumar Masiwal

Social Entrepreneur

Santosh Kumar Masiwal works with school children to support environmental awareness and education. In 2018, he started going to SDG awareness webinars and workshops. After that, he decided that teaching children about SDG goals was important, so he started to conduct awareness programmes in schools and saw that children were interested in them.

He gives information about nutritious food and clean water and also spreads awareness about Government schemes related to the Sustainable Development Goals. Seminars and awareness programs are conducted with school children and youth for the disposal of plastic and single-use plastic waste, in coordination with village panchayats.

They are informed about recycling single use plastics that are spreading everywhere. Gram Panchayats are contributing by constructing special dustbins for single use plastic as a priority in the development plan.

Work

In the district innovation program for innovative education in different schools of 7 districts. Students were motivated through competitions by creative education, in which children were given digital education in dance, craft, and other activities. Digital classes for the orphaned children were held in district Almora with the help of the District Magistrate's ideas and resources. By taking the

initiative in the gram Sabha, a number of educational institutions (both government and private) and degree-granting institutions held awareness competitions.

Participants were informed that in addition to meeting their personal needs, knowledge would be given on how important resource conservation is for the next generation and how it may be done, with many positive outcomes.

Children have a much greater understanding of the 17 distinct goals, and they highlighted issues they connected to and how to solve them. Goals related to gender inequality, caste discrimination, social inequities, energy conservation, environmental protection, good health and hygiene, and others were prominently featured.

Beneficiaries

Teachers at schools are helping to achieve these goals. Children are prepared to serve as role models once they have learned these concepts. It is necessary to make children and their parents aware from primary level to create awareness about the resources and ways to save them, as well as to create the need for the imagination of the beautiful world.

Children enjoy learning, and many of them are creative and ready to put what they have learned to use. They



**LIFE IS A
JOURNEY,
NOT A
COMPETITION”**



speak of ways to create local jobs, how to save resources for the next generation, and how to improve health and education. Apart from these, children are openly discussing gender equality, understanding the problem, and, after discussing among themselves, providing solutions. Children from different schools communicate on a school level.

The innovation program has proved useful for schools. As a result many children succeeded in passing higher entrance exams and have been sent to Rajiv Gandhi Navodaya Vidyalaya, Jawahar Navodaya Vidyalaya and Sainik School. Work was done in Almora, Dehradun, Bageshwar, Pithoragarh, Nainital, Pauri Garhwal, Udham Singh Nagar districts, in which 43 different districts,

Fundamental Challenges

- Providing better education to children in government schools in Uttarakhand has been a challenge, especially in mountainous areas
- Old and outdated educational practices are not able to enhance the learning attitude of students
- Lack of teachers in schools, lack of scientific temper, lack of interest in children’s studies
- Absenteeism and not taking admissions in school is also a big challenge
- Lack of interest in society, surroundings, their own cultural heritage, historical background, geographical environmental heritage and their natural resources
- Lack of science workshops and laboratories leads to low interest in joining technical vocations





Top

SDG program being conducted in Government School Takula, Almora

4672 children of schools were benefited, and 858 new children took up innovation activities.

Earlier, this kind of innovative education was not available in government schools. At present, many efforts are being made by the Government in this direction as well. Science workshops for kids lead to practical and experience-based learning which builds skills. Education of children, schools, colleges and the public on the Sustainable Development Goals in the state has benefited.

Future Plans

He is working on a number of projects, including those that raise awareness of the importance of quality education among the government schools, organize science workshops to foster young people's understanding of science, and sensitize everyone to the Sustainable Development Goals. Support and training are being given for the absorption of 29 themes from the Sustainable Development Goals into Panchayat Development Plans.



Key Innovations

- Informing and educating children about nutritious food and clean water
- Spreading awareness about government schemes and the sustainable development goals
- Seminar and awareness programs conducted in schools with children and youth
- Highlighting the importance of resource conservation for the next generation and how it may be done, with positive outcomes
- Educating people about various government schemes for quality education





17 PARTNERSHIPS
FOR THE GOALS





The UMEED Network

Non-Profit Organisation

The UMEED Network was launched on March 28th, 2020, as a response to the COVID-19 crisis. Community Radio (CR) is a participatory form of radio where communities own, manage and run their radio stations, creating engaging programming in their local language/dialect. The People's Power Collective (PPC) is an NGO that works across remote regions in the Himalayan state of Uttarakhand to improve CR capability and training.

When the COVID-19 pandemic sent India into a total lockdown in March 2020, the remote towns of Uttarakhand faced inadequate state communication, misleading news, and many unresolved issues. To address this issue, the PPC collaborated with five CR stations in Uttarakhand to establish the Umeed Network: Kumaon Vani, Mandakini Ki Aawaz, Pantnagar Janvani, Radio Khushi, and Radio Zindagi.

Work

The UMEED Network, guided and led by PPC, has leveraged CR to play the role of an emergency network during the pandemic. The concept of CR itself isn't new in India, but its potential as a powerful multi-stakeholder ecosystem hasn't been fully explored. Spearheading the formation of the UMEED (Hope) network, PPC brought together five CR stations across the state. In the CR medium, there is two-way communication. For state institutions, the UMEED network has been a way to both reach out and hear about needs through a trusted one

point contact, leading to a quick turnaround for critical situations. The economies of scale, broad outreach, and truly meaningful collaborations that have emerged hold significant potential for the future.

CRs' ability to function during the lockdown, thanks to their passion and personal commitment, added a new dimension. Through the airwaves, lockdown restrictions were followed while informing, educating, and reassuring people. The network has a potential listenership base of 1.5 million people across 11 districts of Uttarakhand via their CR stations, which are UMEED Network partners.

The UMEED network's mission over the past months has been to:

- Build awareness on COVID-19, its symptoms, precautions, treatment, and recovery
- Disseminate daily updates on government directives and community relief policies
- Respond to communities' daily needs for information, reassurance, and support through tailor-made content. Through their research report, Community Mobilisation and Good Governance Via the Community Radio Network Umeed, in the Himalayan State of Uttarakhand, at the time of COVID-19, the PPC lays out the process, operations, challenges, and achievements of the Umeed Network since its inception and until the end of the research period i.e November 2020.

“
**WE INVITE ALL
 CITIZENS TO
 HELP ESTABLISH
 AND RUN
 PARTICIPATORY,
 NON-PROFIT &
 SUSTAINABLE
 BROADCAST
 NETWORKS
 FOR THEIR
 COMMUNITIES”**



- The UMEED network, via the five CR partners, reaches a rural, peri-urban, and urban community that is approximately 1.5 million strong, covering regions across 11 of Uttarakhand's 13 districts. Building on the pre-established catchment community culture of listening, interacting, and trusting their local friendly-neighbour CR stations, this multi-stakeholder network has been supporting its people right from lockdown 1.0
- The initial months of the UMEED network's operations included daily editorial meetings via conference calls. Online meeting platforms were irrelevant, as the rural and peri-urban stations Mandakini Ki Aawaz, Pantnagar Janvani, and Kumaon Vani struggled with poor to no connectivity. As convenor

Fundamental Challenges

- COVID outbreak sent India into a total lockdown
- Poor communication coupled with fake news, left communities, especially those in these isolated hills of Uttarakhand, in a state of panic and fear, with many unanswered questions
- Traditional modes of communication are being replaced with digital ones
- Need for a portal with quick turnaround for critical situations
- Lack of single point contact





Right to Left

The PPC coordinated with five CR stations in Uttarakhand Kumaon Vani, Mandakini Ki Aawaz, Pantnagar Janvani, Radio Khushi and Radio Zindagee to create the UMEED Network

of UMEED, PPC facilitates these dialogues. Based on questions and stories from the field, we suggest content angles supporting creative programming formats. Each of the six partners takes responsibility for different tasks. These tasks range from identifying the potential source of content, verifying, logistics and planning, recording, editing, and sharing with the network CR partners via messaging platforms or emails

- In keeping with CR's ethical practices and the ideal bespoke nature of its content, PPC makes sure that centralised content creation only adds value. And where and when required, tailor-made programming is delivered. Additionally, while PPC designed and facilitated all UMEED network content in this collaborative manner, production was only done by CR partners

- Within the first two months of programming, the UMEED network's focus areas quickly emerged. They are broadly categorised under Emergency Rapid Response, Right to Information, and Bringing Policy to Practice

Beneficiaries

Highlights of the PPC-led UMEED network's Rapid Emergency Response:

- The rapid and well-coordinated response between the network partners is reflected in the cases of timely delivery of food supply to Nepali migrants in Thalishain, Pauri-Garhwal. Kumaon Vani reported stranded migrants with no food or shelter. PPC took this issue to GOU via an enabling IAS officer and the state's COVID-19 Control Room. Remedial action was immediately taken

Right

PPC is currently facilitating the Community Radio Network (UMEED Network) of 1.6 million potential listeners across 12 districts in Uttarakhand

- During the first week of lockdown 1.0, a video went popular suggesting that having a black stone outside one's door will prevent COVID-19. Mandakini Ki Aawaz received a flood of phone calls. PPC immediately got out to the Uttarakhand Science Education and Research Centre (USERC) on behalf of the UMEED network, and within two hours, the director, Dr. Durgesh Pant, was live on the channel, delicately squashing this misleading story
- There was a time when government-run quarantine centres were overcrowded and migrants were being released arbitrarily into the hills. A case of potential community transmission was averted thanks to Radio Khushi's timely interview with a returning migrant from Mumbai and his 30-member joint family and half of whom tested positive for COVID-19 while in institutional quarantine. As a result, the PPC ensured that their COVID-19 test results reached the state machinery, and they were not permitted to travel to their home districts until they were free of COVID-19

During the period since March 28th, 2020, the UMEED Network has continued to form new partnerships, while PPC, as the incubating partner, has worked on building/sharing capacity with the team using our proven "learning by doing" model that has been successfully implemented with CR Mandakini Ki Aawaz (MKA) over the past decade.

Along with the other UMEED's effort, a few other noteworthy radio campaigns that took place in 2020 include:

- Demystifying and explaining to the last mile about the CM Swarojgar Yojana
- An election enrollment awareness-building campaign

- Weather warnings and daily weather updates from IMD

Current UMEED Network programming involves:

- Hamara Sankalp Corona Mukta Campaign
- Manobaal is a mental health awareness initiative developed in partnership with Dr. Sukriti, a renowned Psychiatrist
- This campaign aims to increase awareness of the SDG Goalkeeper award and encourage rural participation as much as possible in ten days

Future Plans

CR is not an input-output medium. It takes time and effort for the community groups who administer these CR stations to stretch their boundaries and fully involve their communities for CR to be the changemaker it can be. PPC's commitment to The UMEED Network is to make this possible during the next five years. In two years, the UMEED Network will include 15 participating CR stations, including new CR stations that PPC will incubate throughout this period (immediately upon receiving funding for the same). Within five years, the UMEED network will have spread across India, with over 40 CR partners reaching close to 12 to 15 million last mile communities.





Key Innovations

- Collaborated with five CR stations in Uttarakhand to establish the Umeed Network: Kumaon Vani, Mandakini Ki Aawaz, Pantnagar Janvani, Radio Khushi, and Radio Zindagi
- Has become a trusted one-point contact, leading to a quick turnaround for critical situations
- Continuously delivered community need-based community radio programming, all across the COVID-19 pinnacle period
- Proved that radio remains an effective and relevant medium even in this time of the internet and social media
- 310 Community Radio stations operational in India under the Ministry of Information and Broadcasting







17 PARTNERSHIPS FOR THE GOALS



PURPOSE OF LIFE
only one purpose in the whole of life - Education
right from its beginning to its end.

राजकीय स्नातक
जिला-पिथौरागढ़

VALUES
We stand for...
We stand for...
We stand for...
We stand for...
We stand for...

...

...



Society for Himalayan Environment and Geology

Non-Profit Organisation

Society for Himalayan Environment and Geology (SHEG) is a non-profit organisation based in Berinag, district Pithoragarh, Uttarakhand, with a clear mandate to take up programs and actions for the protection of the environment and geology along with community development, sustainability, women empowerment, livelihood, education, health care and immediate response to natural calamity, disaster and pandemic.

They were heavily engaged in COVID-19 relief work in the remote hilly villages of Uttarakhand and focused on various interventions. The interventions were fueled by volunteers who were committed to raising funds and ensuring optimal use of resources working in close partnership with non-profit organisations on the ground. They dispatched COVID-19 support kits to enhance effectiveness of grass root level volunteers and healthcare workers.

Work

COVID-19 wreaked havoc everywhere, and Uttarakhand was no exception. The healthcare system of this mountain state was under a lot of stress due to the sudden appearance of the second wave. Rapidly increasing new cases and city lockdowns caused a large exodus of migrant labourers back to their home towns in the hills, which made the situation worse. In contrast to the

first wave illness spread swiftly in isolated villages that were ill-prepared to respond. Despite delayed testing, widespread illness was reported from numerous areas.

The number of patients with COVID-19 in hospitals was overwhelming, and mortality rates were fairly high. The Uttarakhand health infrastructure that was already in place was not able to handle such a severe pandemic. Unfavourable weather conditions made living more difficult in isolated villages throughout Uttarakhand's hill districts.

SHEG mobilised a large number of individuals, self-help groups and NGOs who were active at last mile level to collect information with respect to immediate needs of the people and their expectations. Consolidation of requirements helped fair estimation of resource requirements and also in creating a responsible delivery model at the last mile.

According to their internal evaluation, they were assisting about 1000 remote communities where no previous relief efforts had been made and where the roundheads were not present. They immediately launched a crowdfunding campaign, reaching out to friends and their networks around the world, as they lacked any financial sources. They raised almost Rs 14 Lacs in a week, which allowed us



**NO ONE IN
THIS WORLD
WHO LIGHTENS
THE BURDENS
OF ANOTHER IS
USELESS”**

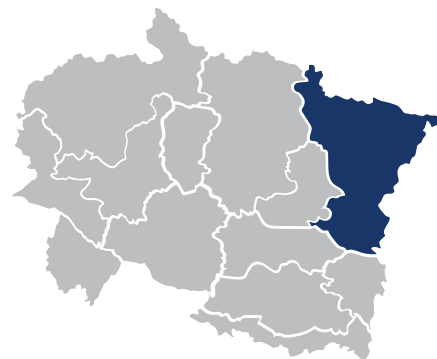


to launch our COVID-19 relief efforts right away. During the four months of the COVID-19 effort (April to July), SHEG brought together more than 30 organisations and hundreds of people who worked selflessly on a 24 hour per day basis. We stay on track thanks to daily stand-up meetings and immediate messaging via Telegram and WhatsApp. Additionally, they were receiving field feedback practically in real-time.

The key to success were quickness and agility. In order to quickly provide relief supplies, SHEG developed an effective procurement procedure that prioritised high-quality materials as well as an effective distribution network that made use of local resources. COVID-19 was not just a pandemic, it had significant post-pandemic repercussions that needed a longer term approach to address complications. SHEG could ensure timely

Fundamental Challenges

- Primary COVID-19 precautions, like wearing masks, social distancing, washing hands regularly, etc. are not followed in general
- Social gatherings posed a danger with large number of people congregated
- Villagers ignore COVID-19 Symptoms like fever & cough
- Patients with COVID-19 positive reports were hiding information with society, thereby spreading disease
- Patients were referred to higher centres within 2 - 8 hours time
- Basic equipment like Oximeters, Thermal scanners, Nebulizers, Oxygen Concentrators, Oxygen refilling units and Oxygen Cylinders are missing from hospitals and clinics
- Higher commute time due to poor infrastructure or geo location





Top

Plantation at P.G. College, Berinag where SHEG planted more than 500 plants

support from resourceful organisations like SRIJAN's commitment to a major part of this initiative. SHEG also became a member of RCRC (Rapid Rural Community Response) Network, a consortium of renowned NGOs in India. They believe it will help them prepare better in addressing issues related to health and livelihood in more sustainable ways in future as well.

They used modern technologies, such as WhatsApp, Telegram, a web portal, digital payment methods, and online meetings, to effectively communicate and

collaborate with individuals around the world. From the start, SHEG built tight working relationships with state-wide health and local government authorities. They used their network to help some PHCs and CHCs with expensive equipment. The most important part of Project Swasth Pahad was involvement of grassroots health activists like ASHAs and Anganwadis at village level.

They organised a 5 day intensive training for more than 100 people on COVID-19 as well as General Health. They

Top

SHEG provided medical kits to Government Hospital and School, Berinag



were able to visit 750+ remote and inaccessible villages in all 11 hill districts of Uttarakhand in a very short period of time. This affected 10-12 Lakh people living in these areas. They worked together to do extensive door-to-door immunizations in more than 50 communities near Berinag. Up to this point, they have helped 3000+ people get immunised, and are still going strong.

Although COVID-19 was the main focus, they also included other helpful items in their kits to enhance long-term health services in villages, such as BP machines, lightweight stretchers, hygienic sanitary pads, etc. They continued with webinars and telephone help from some of the top medical professionals in the nation for ASHAs who needed consultation or guidance on their health. These initiatives have significantly increased the self-confidence of the grassroots workers.

Beneficiaries

SHEG provided equipment and medicines to Berinag and Gangolihat Community Health Centers in the Pithoragarh District as well as COVID-19 kits and medicines to over ten villages. They also provided hospital beds and wheelchairs to patients at Government hospitals.

Future Plans

SHEG is constantly working to increase health consciousness among local residents. With community involvement and engagement, they continue to increase their efforts in the areas of Health, Education, and Environment. They are taking part in Rapid Rural Community Response (RCRC) Network's extensive household survey and research project, along with 49 other blocks from the rest of India.



Key Innovations

- Initiated programs and actions for protection of Himalayan environment and geology
- Also encouraged community development, sustainability, women empowerment, livelihood, education, health care and immediate response to natural calamity, disaster and pandemic
- Heavily engaged in COVID relief work in the remote hilly villages of Uttarakhand
- Dispatching primary COVID support kits to enhance effectiveness of grass root level volunteers and healthcare workers
- Involved in extensive household survey and research project







**YOUNG
ACHIEVER**





Siddharth Madhav

Young Achiever

Siddharth Madhav is all of 18 years old. He is a dreamer, innovator, and experiential learner based out in Dehradun. He is one of the youngest CEOs of a technology company in India. His company Techno Hub Laboratories has been engaged in technological innovation leveraging advanced concepts like AI/ML and robotics for solving livelihood problems. He has been experimenting with computers and other gadgets and technology since he was 14 years old.

He supports challenging, outcome-based, and practical education. He decided to finish his education from full The National Institute of Open Schooling (NIOS) after dropping out of school in grade 9. He started testing and working on his ideas in his own home because he liked doing hands-on experiments, and he continued to learn through various platforms. He created an application for the State Government to follow COVID-19 patients in the state during COVID-19. This inspired him to start conducting online workshops for students during the lockdown on cutting-edge technologies.

Since then, he has conducted workshops on cutting-edge technologies like the Internet of Things, artificial intelligence, drones, and more for students and organisations, including prestigious institutions like the Lal Bahadur Shastri National Academy of Administration (LBSNAA). Along with working with committed environmental organisations like HESCO, he has led

sessions on science-based activities in schools that require such interventions. His goal is to use technology to further the practice of economically sustainable agriculture. In addition to STEAM (Science, Technology, Engineering, Arts, and Mathematics), he enjoys playing tennis and caring for animals. He thinks that technology and innovation are the game-changers that will make the world a better place to live in and that our generation must engage in innovation to find solutions to the issues we are currently facing.

He has some articles and patents in this field to his name and is now working on others. To create a platform for ideas and innovations, he registered his business, Techno Hub Laboratories, in December 2020 as the first step in achieving his dream.

Work

Siddharth has made innovation and scientific ideas his life's passion, while kids his age are grappling with adolescence and day-to-day challenges. He is developing advanced technologies and initiatives to address issues faced by society as a whole. Some of his most recent technological innovations are as follows:

Development of first COVID-19 tracking app for the Government of Uttarakhand: When COVID-19 struck at the doors throwing everyone's life out of gear, Siddharth developed an IoT-based COVID-19 tracking application



**GROWING
OLD IS
MENDATORY
GROWING
UP IS
OPTIONAL”**



in a very short period. This was one of the first such applications developed during the pandemic.

IoT-based Portable Water Quality Testing Kit: Testing for water quality has developed as one of the most urgent needs at this time. Testing the water quality is basic to ensure portability and purity, regardless of the source—tap water, a spring, a river, or any other source. In analysing the water at conventional water bodies, Siddharth has created a portable IoT-based water testing kit. Large-scale initiatives like Namami Gange and others would find this kind of equipment to be quite helpful.

SMART Homes: Security and home automation are the next big innovations impacting the quality of life in a big way. Siddharth’s tryst with scientific fiction led

Fundamental Challenges

- Lack of water testing facilities in Uttarakhand
- Regardless of the source, whether it be tap water, spring water, river water, or any other source, testing the water quality is essential to ensure portability and purity
- Randomly selected water samples are sent to laboratories in NCR which take time to generate reports
- Testing kits need to be improved further to take into account a variety of other factors, increasing impact and generating ideas for more long-lasting permanent solutions
- Irrigation system needs to be smarter and more interactive
- Planned irrigation of fields is necessary depending on soil salinization and water management which is very challenging for farmers





Top

Workshop at Lal Bahadur Shastri National Academy of Administration, Mussoorie

him to develop an IoT-based smart home security and automation system that can be used to manage many home-related challenges very effectively.

Smart Irrigation System: The life span of farming and irrigation must be exact since over- or under-irrigating fields can impact the soil, water, and crops. The intelligent, low-cost irrigation system will support plant health and quality maintenance in addition to maximising irrigation efficiency by minimising water waste. Recently, HESCO received the prototype of an IoT-based smart irrigation system. Water flow is managed by a moving vehicle. This project could ultimately save about 50,000 lit. of groundwater per month.

The fact that at such a young age, he had been invited to talk to IAS probationers and demonstrate his innovations

speaks much about the tangible nature of these inventions. Water testing has the potential to have a significant impact on the demand for cleanliness and to develop a research-oriented mindset in young students interested in environmental studies. The farming community can reduce environmental costs associated with over-irrigating the fields and preserving soil water balance by using smart irrigation systems.

Future plans

Siddharth wants to carry on with his education and research in this field. To be used for a variety of use cases related to testing natural resources like water, air, etc., he would further improve the model. He also wants to use technology to help and improve the work of other sectors, such as farmers, doctors, and community health workers.



Key Innovations

- Developed an IoT-based COVID tracking application in a very short period
- Generated a LoT-based portable water quality testing kit
- Engaged in Technological Innovation leveraging advanced concepts like AI/ ML and robotics for solving livelihood problems
- Developed an IoT-based COVID tracking application in a very short period
- Generated a LoT-based portable water quality testing kit
- Engaged in Technological Innovation leveraging advanced concepts like AI/ ML and robotics for solving livelihood problems





Award Event

SDG Goalkeeper Awards 2021

The SDG Goalkeeper award ceremony was organized on 10th June 2022 at the Hotel Pacific in Dehradun. The event was graced by the presence of Hon'ble Chief Minister of Uttarakhand who was the chief guest. The 27 awardees arrived from all across the state on the day of the event with family and friends and were welcomed by the CPPGG and UNDP team with SDG-themed pins. A sense of collaboration and partnership encapsulated the event, motivating organizations and individuals to come together as a unified spirit on the common ground of working towards a sustainable future.

The event commenced with the arrival of the Chief Guest who was welcomed by Dr. Ranjit Kumar Sinha, Secretary of Planning and CEO of CPPGG. The chairperson of the Jury was invited on the dais and welcomed by Dr. Manoj Kumar Pant, ACEO, CPPGG. A welcome address and a brief of the program was delivered by ACEO, CPPGG which was followed by the inaugural address by Secretary Planning. The Jury members were also recognized and presented with handwoven scarfs on behalf of the UNDP team in collaboration with 'Hilans', a brand associated with Uttarakhand Gramya Vikas Samiti (UGVS) to market the state's farm produce across the world.

This was followed by the final felicitation of the awardees with a memento and certificate by the CM. Video documentaries recognizing their efforts were played in the background. Following the award ceremony, the CM addressed the awardees with words of appreciation and motivation, emphasizing the importance scaling and replication of their efforts at a broader level for achieving the sustainable development in the state. Later in the day, an experience-sharing session was held for each awardee to talk about their contributions to the state's welfare. The event ended with a celebratory lunch.





