

7.2 Best Practices

Best Practice – I

1. Title: Strong Interface between University and Society

The University holds the function of discovering, generating, transmitting and disseminating knowledge to society; and adopting mechanisms that facilitate the transfer of knowledge. Therefore, one of the larger objectives of the university is to make knowledge a differentiating element within the society and the economy, since this motivates competition, generate livelihood opportunities, creates wealth and improves overall well being of the society. The Hemvati Nandan Bahuguna Garhwal University (HNBGU) has been using its best practices utilizing the acquired knowledge in transferring to the society. Most of the schools/ departments of the university are contributing significantly in strengthening the interface between University and the society.

2. Objectives of the Practice

The basic objective of education is to have a strong interface between academics and society, therefore, the research output of the University should be utilized for the welfare of the society. The Hemvati Nandan Bahuguna Garhwal University is located in mountainous environment of economically backward area of the country. The people of the region are honest, simple, god fearing, economically weak and sustain their life in a harsh environment. The region being very rich in natural resources offers ample opportunity to an institution of higher learning to contribute towards the improvement of the livelihood of the people by sustainable exploitation of the natural resources.

3. The Context

Keeping in view the ecological setting of the catchment area the University through its departments and special cells has identified the priority areas for promoting public awareness for ensuring public participation in addressing the issues faced by the society. These issues were identified as health and hygiene, problem of solid waste disposal, forest fire, climate change, deforestation, natural disasters, vanishing arts and traditional knowledge, unemployment, male migration and gender related issues.

4. The Practice

The University employs best practices for addressing these burning issues faced by the society by conducting several outreach programmes and it's approach of 'Lab to Land' for utilizing the natural resources to enhance the livelihood of the people. These practices have been summarized under the following sectors:

- **Creating Public Awareness on Environmental Issues**

The departments of Environmental Sciences, Physics, Zoology, Botany & Microbiology, Geography, Rural Technology, Biochemistry and others conduct programmes on World Environment Day, Earth Day, World Water Day, Earth Hour, Himalayan Day, World Biodiversity Day, International Ozone Day etc. for promoting public awareness on environmental issues. These include rallies, plantation programmes, cleanliness drives, workshops, symposia, quiz competitions, poster presentations and extension programmes, which get wide publicity and appreciations in the media.

UMANG–University Mission for Awareness on Namami Gange (UMANG), the cell established by HNBGU conducted various programmes in 2018-19 viz. 'Run for Clean Ganga Campaign' on International Biodiversity Day; 'Awareness Campaign for Clean Ganga' on International Day of Yoga; facilitating 'Swachh Bharat campaign' of CISF; 'Awareness Campaign on Ganga Divas'; Wall painting on Namami Gange on the theme 'Plantation for Clean and Green river bank'. UMANG also organized a National Seminar on *Ganga ki Sanskriti aur Ganga ka Samaj* in collaboration with the State Project Management Group under the aegis of Namami Gange Project, Govt. of India (22-23 February, 2019). Also, to discourage the use of plastic water bottles and polythene bags/ folders, particularly in meeting and conferences, UMANG has introduced metallic water

bottles and canvas bags.

Under the ***Unnat Bharat Abhiyan (UBA)***, a sponsored social flagship program of MHRD, Govt of India, HNBGU adopted villages under the cluster of 04 Gram Panchayats in District Pauri. During 2018-19, the UBA Cell undertook many activities in the adopted villages namely, formation of Village Development Plans in consultation with village representatives viz. Gram Pradhans, Elders, Mahila Mangal Dal etc.; Anganwadi and Primary School at village Koti were provided modern education aids; conducted Free Health Check-up and Medical Aid Camp in collaboration with Chief Medical Officer, District Pauri Garhwal, Uttarakhand; Swami Rama Himalayan University, Jolly Grant, Dehradun; Cleanliness drive and awareness campaign; Tree plantation; Rural Development proposal (Complete plan) was submitted to CDO Pauri Garhwal for necessary action; Training and awareness workshop on adoption of diversified horticulture and agriculture practice for enhancing the income.

The volunteers of NSS units at the three campuses of the University actively participate in various environmental awareness programmes in and around the campus. During 2018-19, they undertook cleanliness drives and awareness campaigns '*Swachhta hi Seva hai*' (Sep. 1-5, 2018); awareness campaign under Namami Gange, Voting Awareness Campaign (March 2019); Legal awareness programmes, Signature Campaign for creating awareness on 'Segregation of Biodegradable and non-biodegradable waste; Cleaning drive in the town on Gandhi Jayanti etc. The NCC cadets also participated in *Swachhta Abhiyan* along with UMANG and CISF.

SAMADHAN, a Clean and Green Campus Mission initiated by Director Chauras Campus with the active participation of Ph.D. Scholars, UG & PG students, faculty members and nonteaching staff has created a *Samadhan Vatika* at Chauras Campus [26.08.2018, 09.09.2018, 25.09.2018 and 30.12.2018]. Around 50 bags of plastic waste was collected from the Chauras Campus in the *Swachhta Abhiyan* held on 03.01.2019, was also participated by 100 Youth Foundation trainees. Also, on 10.02.2019 about 40 bags of plastic waste was collected from the Residential colony in Chauras Campus.

- **Plantation Drive**

The departments of Forestry & Natural Resources and Horticulture have undertaken plantation work in the campus on various occasions. The state-of-the-art nursery (0.52 acre) of the department of Forestry has a collection of 43 species of tropical and subtropical plant seeds of different provenance, all done by the students. During 2018-19 the department raised 60 thousand seedlings and distributed 10 thousand to the farmers.

The NSS and NCC units undertook plantation drive in the campuses during the session.

- **Lab to Land Programme**

High Altitude Plant Physiology Research Centre (HAPPRC) with its alpine station at Tungnath (3600 m asl) in District Rudraprayag has successfully extended its R&D outputs to the society through establishing demonstration units as *see & adopt* and organizing *on & off farm* training programmes for capacity building of the stakeholders, and transfer of technical know-how of cultivation of high altitude medicinal and aromatic plants (MAPs).

- **Training/ Skill Development**

Awareness and Training Programme for Farmers: High Altitude Plant Physiology Research Centre (HAPPRC) conducted Farmers awareness and Plants Distribution Programmes in the districts of Uttarkashi, Bhageswar and Chamoli were conducted and in addition to this a 'Farmers Conference cum Training Programme' was organized during 2018-19, which was attended by 100 farmers. HAPPRC also organized students Awareness Programme on the occasion of *Jadi Buti Divas* at Urgam, Joshimath, Chamoli. The Centre has developed a Nature Interpretation Site at Baniyakund (district Rudraprayag) with financial support under National Mission on Himalayan Studies programme through GBPNIHESD that is being used for creating environmental awareness as well as field

research, demonstration and maintenance of germplasm.

The Horticultural Research Centre (HRC) of the department besides providing field facilities for practical training of students of various courses; acts as demonstration centre for extension of production technologies; and conducting short term trainings to farmers. The department also supplies plant materials to the farmers.

The Department of Rural Technology is extending training to local people and students on 'Mushroom Cultivation' to supplement the livelihood or income generation activity.

- **Preservation and Promotion of Traditional Arts & Culture**

The University has established a Centre for Folk Performing Arts and Culture for preserving, promoting the folk arts, folklores, folk music, instrument and culture of Uttarakhand. The Centre regularly conducts programmes on the promotion of traditional arts and culture. The 'Museum of Himalayan Archaeology and Ethnography' has 13 galleries displaying the antiquities, excavated finds and other important collection of terracotta art, bronzes, sculptures, manuscripts, coins, paintings, inscriptions and other ethnographic material showcasing the rich heritage of Uttarakhand Himalaya. In addition to the University staff and students, school children, general public and other faculty members from other universities are visitors to the museum. The 'Museum of Himalayan Cultural Heritage' in the Department of Anthropology houses artefacts depicting different dimensions of tribal culture of the region is open for general public also.

- **Dialogue with the Society**

The Centre for Journalism and Mass Communication (CJMC) has been establishing dialogue with the society through its monthly journal '*Sanchar Tatva*'. The centre also organizes several programmes in environmental communication and reporting and highlighting the burning issues faced by the people of the Uttarakhand.

- **Active Participation of University in Social Works**

The Department of Sociology and Social Works has been very active in sensitizing the society on contemporary social issues and promoting public awareness for ensuring their active participation in addressing these social issues.

The volunteers of NSS actively participated in rally on the occasion of Blood Donation Day at Pauri. At SRT Campus Tehri, one day camp for gender sensitization and AIDS awareness was organized by the Red Ribbon Club.

- **Outreach Programmes**

The **Women Studies Centre** has been instrumental in raising gender related issues and sensitizing the community. International Women's Day is celebrated every year by the centre. On the occasion invited lectures by well known personalities are deliberated in a function which also felicitates genuine women achievers/ role models from the society. This year Smt. Anuradha Pal, SDM, Kirtinagar was the Chief Guest at ACL Hall, Birla Campus.

Department of Naturopathy & Yoga has been making efforts to spread awareness about yoga and its benefits, in the local community. Free yoga camps were organized for students and teachers of 10 schools during 2018-19 and in addition to this, free Yoga health camps were organized in the 3 villages of Pauri district adopted by the University under *Unnat Bharat Abhiyan* on 02.05.2018. A Yoga rally was organized by the department in collaboration with the Dean Students' Welfare Board on 02.05.2018 at 4:30 PM from University Administrative Building to Gola Park, Srinagar (Garhwal). The department also organized a lecture series on the subject "Yoga and its various Dimensions" during 5th to 7th May, 2018. In all, 150 participants attended the programme.

Department of Home Science, Pauri campus imparted knowledge about 'Nutrition and health' to the students and community by various activities such as celebrating National Nutrition Week and also by organizing competitions in the department.

DST-GoI sponsored 04 **Inspire Internship Science Camps** were organized during 2018-

5. Evidence of the Success

Evidences of the success for the best practices employed in various sectors for strengthening interface between University and society have reflected in terms of tangible outcomes of the targets/ benchmarks fixed and reviewing the progress / results of the work done by the University.

- There is a significant improvement in environmental awareness among the public in and around the catchment area of the University. There is tangible improvement in the cleanliness in the campus and the banks of the River Alaknanda. The University has been undertaking cleanliness drives in the town and nearby villages as a part of *Swachhta Abhiyan* with the active support of *Nagar Palika Parishads* and *Gram Panchayats*.
- The awareness programmes undertaken by UMANG have been well received and recognized as well. It received a 'Letter of Commendation' by the State Programme Management Group, Namami Gange and a Citation in 'International Environment Summit 2018' by Ministry of Environment and Namami Gange. The National Seminar on *Ganga ki Sanskriti aur Ganga ka Samaj* organized was attended by policy makers and decision takers besides students of about 12 schools of Rishikesh.
- During 2018-19, the department of Forestry planted 500 trees seedling on degraded land, soil eroded area and nourished them resulting in 80% survival, a clear indicator of the success of the practices
- Lab to Land programme conducted has got a great success in the area and has got acceptability in the society. Adopting the agro-technology developed by the HAPPRC, numbers of farmers have initiated the cultivation of MAPs in their agriculture/waste land. Village Ghesh in Deval block of District Chamoli is a model village for cultivation of *Kutki*. The centre also helped in establishing MoU between MAPs growers and Pharma Companies for marketing of raw produce, thus ensuring income generation. During 2018-19, more than 30,570 seedlings of MAPs were distributed/ planted. Also, around 400 farmers and 600 students from different districts of Uttarakhand attended the awareness programmes organized by HAPPRC.
- 172 persons from the UBA adopted villages availed the facility of health camp, (38 got their diabetes tested, 64 eye test and 9 ECG). Free medicines were provided to all the beneficiaries on the spot.
- Several programmes conducted under social works got recognized by the cross section of the society and improved the interface between University and society. Students of the University are also attracting for taking up the issue of strengthening interface between University and society.
- **DST-Inspire Internship Science Camps** were attended by 1222 students and 124 teachers from 130 schools of Uttarakhand during 2018-19.

6. Problems Encountered and Resources Required

There have been several problems encountered during the practices of strengthening interface between University and society. These are enumerated as follows:

- It was very difficult to establish communication with the society for convincing them for ensuring their active participation in the programme. It needs extra efforts, resources, man power and time.
- Sensitizing the society for undertaking *Swachh Bharat Abhiyan*, public awareness on environmental and social issues is a difficult task.
- For conducting outreach programmes at a remote programme needs funds for transportation, food and logistics. Therefore, it was very difficult to generate funds for undertaking the programmes.

For performing all the above activities, additional resources and funds are required for continuing and maintaining the active and strong interface between the University and society.

Best Practice-II

1. Title: Innovative Teaching-Learning

2. Objectives of the Practice

An institution of higher learning serves students of different backgrounds and abilities, through effective teaching-learning experiences. Therefore, interactive instructional techniques like group discussions, debates, projects, classroom seminars, presentations, internship etc. have been adopted to develop critical thinking and inquisitiveness among the learners. Furthermore, Hemvati Nandan Bahuguna Garhwal University has always made efforts to employ innovative methods of teaching so as to make learning more interesting and effective. The effort is towards imparting a learner-centric education through appropriate methodologies including interactive and participative approaches.

The University has established an e-Governance Cell so as to make whole university services available to students and staff through the utilization of ICT.

3. The Context

Located in a relatively remote hill area, the University largely caters to the higher educational needs of students from rural areas many belonging to the economically backward sections of the society. Therefore, engaging students from such diverse background for effective learning always requires participative and collaborative methods of teaching. Of late, the University has laid emphasis on application of ICT resources for teaching-learning. The faculty members have also been updating themselves with the expanding world of eLearning resources. Also, creation of adequate ICT enabled infrastructure has been initiated.

Also, considering the residential-cum-affiliating nature of the University, an efficiently managed administrative setup is essential for effective governance. An ERP is therefore a must for managing various aspects day to day functioning of the University. The e-Governance Cell of the University is facilitating this requirement by providing various related services.

4. The Practice

Centre for Mountain Tourism and Hospitality Studies (CMTHS) regularly carry out *SAIR SALIKA*, a campaign on cleanliness and travel manners. *SAIR SALIKA* is an integral part of the PG curriculum. The students during their field study tours undertake cleaning, environment awareness programmes and follow the practices of responsible tourism at different tourist places they visit. The tour report submitted by them is evaluated and marks are awarded.

The centre also conducts an awareness programme on the occasion of 'World Tourism Day' on 27 September every year by organizing various cultural activities where the students from not only the university but from the schools in nearby areas also participate.

Department of Forestry & Natural Resources facilitated the conduct of value added online training courses on applied aspect of forestry for the students during 2018-19. These are certified courses of Indian Institute of Remote Sensing, ISRO, Department of Space, Govt. of India, Dehradun (30th, 36th, 37th & 43rd IIRS Off-Campus Outreach Certificate Programme).

The **SWAYAM Board** was constituted on 20.02.2019 as an academic expert committee for advisory and executive role with respect to adoption of SWAYAM MOOCs and promoting blended, flipped and e-learning in the University. The board has established the SWAYAM-NPTEL Local chapter of University and is making efforts to create awareness among the students about the course available on SWAYAM portal. The University is hosting two SWAYAM MOOCs "Academic Writing" and Industrial Pharmacy" developed faculty members.

The University as a matter of policy has approved adoption of SWAYAM courses and earning

credits for inclusion in their grade sheet.

Department of Commerce undertook plantation in the premises of the department by the students of B.Com. as part of internal assessment of Ability Enhancement Compulsory Course (Environmental Science) during September-October, 2018. Weekend discussions on various economic and current issues being organised by Commerce Innovative Club established by the PG and PhD students. **Department of Political Science** undertakes a group activity every Saturday viz. *Saturday Dialogue*, involving student, research scholars and faculty members of the department and the School of Humanities & Social Sciences. This includes talks, discussion and brainstorming sessions on any relevant current issue. **Department of Economics** has an 'Economics Association' of University students in which every student of department is given an opportunity to participate in various learning based activities which includes speeches, debate, group discussions, brainstorming sessions, quiz, learning games etc. **Department of Mathematics** is using Neuro Linguistic Programming techniques in learning and teaching for strengthening of mental health of students. **Department of Physical Education** for Building Leadership qualities among students organizes Intramural competition, Leadership training camp, educational tour, workshops etc. The **Department of Psychology** practices 'Self Assessment' and 'Peer Assessment' by the students from time to time. Self assessment improves self confidence, self verification, self strength, and helps to know the obstacles of self development. On the other hand, peer assessment enhance togetherness and cooperative behavior, deeper understanding of subject and generate ideas and strategies for improvement. The faculty of the **Department of English** participates in the students' initiatives of organising literary/music evenings.

Department of Horticulture with the involvement of UG, PG and research students carried out several eco friendly activities in the campus of the University like general plantation, road side plantation, plantation around building/offices, landscaping of auditorium, pot culture plantation and beatification of offices, etc. **Department of Geography** involves the students in tree plantation around the department in Chauras Campus for better orientation towards spring shed management and water budgeting. **Department of Rural Technology** undertakes Mushroom production, training and awareness related activity for the students of the university.

Department of Computer Science and Engineering provides sponsorship to faculty and students for national and International travel to enhance the institution's visibility. The department also ensures the effective implementation of the Outcomes Based Model of Education through various innovative methods. **Department of Instrumentation Engineering** provides Analytical Instruments Facility (Central Facility) to the researchers (Internal and External) of the different research fields. **Department of Rural Technology** provides the Meteorological data (AWS) to students/ researchers of other departments of the University.

National Resource Centre (NRC) on Tourism The CMTHS was awarded the 'National Resource Centre (NRC) on Tourism' by MHRD, Govt. of India in May 2018. The centre successfully designed and developed online SWAYAM programme on *Tourism and Hospitality Services Management* for Tourism and Hospitality for faculty members of Universities and Colleges in March 2019 and uploaded 40 videos on the subject along with manuscripts in MHRD SWAYAM portal. Its online examination was conducted by National Testing Agency (NTA), Govt. of India on 30th March 2019 across the country.

Central Library of the University is undergoing automation and to facilitate e-learning has procured e-resources namely E-books: 7789; E-journals (Consortia): 2500+; E-database: 01 (JCCC); resources and databases provided by INFLIBNET besides the INFLIBNET/IUC facilities: UGC-INFONET Digital Library Consortium, Shodhganga, Shodhgangotri & Plagiarism Detection Software (URKUND).

5. Evidence of Success

- The innovative approaches adopted by various departments have been well received by the students and have proved to improve the overall performance of the students.
- The faculty members are also participating in professional development programmes so as to

update and upgrade themselves.

- The faculty members and students have contributed to the repository of subject specific study and learning materials, created by the SWAYAM Cell of University, which is available free to all students through website <https://www.swayamhnbgu.in/repo>. It is an innovative initiative for providing to the point subject and topic specific links of e-resources as per the syllabi of University.
- The University faculty members Of late, digital resources for learning have become available and this makes learning more individualised, creative and dynamic. The campus Wi-Fi facility at the three campuses will soon be functional thereby enabling online teaching and learning.

6. Problems Encountered and Resources Required

The faculty members are to be oriented to adopt the newer practices for effective teaching. More often, any deviation from the stereotype teaching methodology is not accepted readily. Also, many not being well versed with the use of ICT in teaching take a cautious approach. Students too are circumspect especially in absence of freely available internet connectivity.

For any innovative approach, especially with regard to ICT in teaching, learning and governance requires proper infrastructure which is finance dependent. The University has been adding such resources over the years and an impetus at this juncture is required for overall quality improvement of its academic and administrative interests.