7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

The University has identified priority areas for making the campuses eco-friendly.

I. Energy Conservation

- All the compact fluorescent lamps (CFLs), mercury and sodium vapour (250 watt; 125 watt) street lights have been changed to energy efficient Light Emitting Diodes (LEDs) bulbs and tube sets (40 watts) in the campuses in the campuses.
- The faculty members, administrative staff and students are sensitized to use electric power judiciously.
- Provisions of master switch to all the classrooms to enable to switch off all fans/lights at the end of class work have been made in the University
- New buildings in the University have been constructed with more provision of natural lights and ventilation, enabling lower consumption of electrical energy in day time.

II. Use of Renewable Energy

- Major initiative has already been taken by the University for installing solar water heating systems in most of the hostels (Mandakini; Bhagirathi; Trishul and Forestry hostel) in the year 2011. A total of 72 solar panels (size 1.5m×2.5m) fitted with photovoltaic cells have been installed.
- Additional 08 panels installed at SRT campus, Tehri.
- 95 solar street lights of 18 watt have been installed in Chauras Campus.
- 500 KW Grid connected solar panel system will be installed soon.

III. Rainwater Harvesting

Rainwater harvesting systems are in operation in most of the buildings of the University. Both roof water and storm waters are harvested for various uses and recharging the groundwater.

- Four water harvesting tanks (03 tanks of the size: 13.0m×7.0m×2.0m each and 01 tank of size: 4.90m×2.40m×2.40m) are in operation in Chauras campus only.
- Three water collection tanks of total capacity of 2.35 lakh litre are also in operation in student hostels compound at the Chauras Campus.
- The stored rainwater is being used extensively in irrigating Horticultural Research Garden and plantation in the Chauras Campus and for recharging the aquifers/ ground water.

IV. Check Dams Construction

The University is located in the mountainous region. The university is aware about the fragility and vulnerability of the site of the campuses. Thus, construction of check dams, retaining walls, toe walls and river fronts for stabilizing the slopes and landslide zones and the eroding river banks of the Alaknanda have been a priority area.

- It is worth mentioning to provide the details of these striders. A protection wall (55.0m×6.0m) of RCC has been constructed for protecting the building of old Archeology Museum at Srinagar Campus. A retaining wall (48.0m×6.5m) was also constructed for the protection of the building of High Altitude Plant Physiology Research Centre and Glass House. Two retaining walls (70.0m×7.0m each) have also been constructed for the stability of residences of Professors and Associate Professors and the Guest House. Many check dams have been constructed in the vicinity of Vice-Chancellor's residence for controlling landslides and soil erosion in the Chauras Campus. Ten cross dykes wall (15.0m×8.0m) have been constructed at the bank of River Alaknanda to prevent soil erosion.
- A long toe cum retaining wall (length 547m; width 8.0m [bottom], 2.5m [top] and height 11.0m) was constructed for the stability of the stadium at Chauras campus with an investment of Rs 29.4925 crore in Phase-I. This will also protect the approach road to Chauras Campus which was damaged due to the devastating flood during Kedarnath disaster of June 2013.
- For reclaiming the damaged stadium, road etc., DPR of Phase-II (Rs. 5554.789 lacs) has been prepared by CPWD. Out of which, keeping the availability of funds with the university, the estimate for Part–I of Phase-II, costing Rs. 1028.53 lacs approved by BC,

FC and EC was submitted to UGC Standing Committee for approval. Also, the University has approached RVNL for filling RBM available with them at Chauras site.

V. Clean and Green Campus

The University campuses are located amidst serene natural environment and all members of teaching and non-teaching staff along with students are dedicated towards maintaining its greenery and cleanliness.

- The campuses are covered with a mix of old and young trees, ornamental shrubs and herbs. All roadside trees are properly marked with common and botanical names. Planting of trees is a regular feature of the University and every year sites are identified for plantation. Further, the University selects sites every year so as to make the entire campus green. Priority is given to the fast growing indigenous varieties for plantation that suits the natural landscape and ensuring carbon neutrality.
- Burning of fallen leaves is strictly prohibited instead recycling of organic matter (plant leaves etc.) is done through decomposition pits, to be use as manure later.
- Pavement for walkers is constructed in the Chauras Campus.
- This academic session onwards, the University has decided to make it mandatory for all newly registered research scholar to plant one tree at the time of joining the PhD programmes and look after it till the time she/he submits the thesis.
- Regular cleanliness drives are undertaken by the NSS volunteers, NCC cadets besides the students and teachers of all the departments. Also, various programmes related to *Swachh Bharat Abhiyan* are organized in the campuses.
- Proper waste disposal measures are taken particularly in the hostels and residential colonies with the help of Municipality. Dustbins are placed at appropriate places. Use of plastic bags is banned in the campuses.
- Department of CSE organized drive for collection of e-Waste.
- Chemical and biological hazardous waste (both liquid and solid) generated from laboratories of School of Sciences (Chemistry, Pharmaceutical Science etc,) and Life Sciences (Zoology, Biotechnology and Biochemistry) are disposed-off properly with necessary precautions.
- Biosafety regulations are followed in labs (Biochemistry). Green chemistry approaches are also applied in the laboratory (SRT Campus).