

ANNUAL REPORT 2017-18

Overview

The year under review saw Green Hills Trust transition into consultancy mode with sustained direct interventions for ecological solid waste management in Almora town – both in the parts controlled by the Nagar Palika Parishad as well as in the area under the Cantonment Board. Thanks to agreements made with the Public Works Department (PWD) and the Pradhan Mantri Grameen Sadak Yojana (PMGSY), the technique of reinforcing tarred roads by incorporating shredded plastic waste in them developed by Dr. Vasudevan in Madurai could be applied in Almora District. This not only ensured improved road infrastructure in parts of Almora District, it also greatly reduced quantities of plastic being dumped and burned, thus protecting to some extent the soil, air and water from pollution by particles of micro-plastic.

A one year service contract with the Swiss Agency for Development and Co-operation (SDC) enabled Green Hills to engage a team of seven persons (one supervisor and six waste collectors) to make weekly rounds of all the wards in Almora town collecting clean plastic waste door-to-door. Public address systems were used to request residents not to mix recyclables with other types of waste and to hand over clean plastic waste to the Green Hills waste collectors on a certain day of the week. The response from the public was relatively good. In a few months' time, about 60 per cent of households were segregating their waste correctly and handing over plastic waste to the 'men in yellow jackets' from Green Hills. The supervisor transported by motorbike the waste collected daily to two store rooms provided by the Nagar Palika Parishad in the town centre. About 5 tons have been collected so far, a part of which has been picked up by the PWD and the rest by PMGSY and taken for processing in Kathgodam.

The Chief Executive Officer of Almora Cantt invited Green Hills to apply its system of source segregation, door-to-door collection and composting and recycling of waste in the area under his jurisdiction. Green Hills worked with the members of the Cantt Board and their sanitation staff for three months to launch the new system. It has been sustained thanks to the cooperation of residents and staff. As a result, Almora Cantt was ranked the second cleanest Cantt in the country during the Swachhta Survekshan 2018.

SWM in Almora Cantt

The switch from dumping and open burning of mixed waste to source segregation, recycling and controlled incineration took place in a short period of three months, thanks to the efforts of Cantt Board members, the Cantt Sanitary Inspector, Mr. Rajesh Bisht, and the discipline of his staff. Green Hills office bearers made 11 visits to the area during this time, going door-to-door distributing a memory aid on source segregation, holding meetings with the staff and residents and accompanying the sanitation staff on their collection rounds early in the morning.

छावनी परिषद अल्मोड़ा द्वारा ग्रीन हिल्स के सहयोग से



स्वच्छता अभियान



अल्मोड़ा को स्वच्छ, हरित, कचरा—मुक्त बनाऐं कूड़ा करकट अलग—अलग जमा कर, मूल्य इसका पाऐं!



Design of the memory aid



Meeting with residents



Door-to-door visits with Cantt Board members

Our experience shows that youth are often the motor of behaviour change in households. We therefore arranged to give a presentation on August 9 on solid waste management at the Army Public School through Mrs. Parveen Hamid. The auditorium was packed to capacity with about 300 high school students watching the introductory video and listening attentively to the power point presentation made by Dr. Vasudha Pant.

Physical observation of the waste being handed over to the sanitation staff, allowed Green Hills Secretary and Treasurer to interact with the ladies from the households that were not segregating correctly. As a result, within three months, 99% of households were segregating as required and the sanitation staff was storing the recyclables, composting green waste in the pits dug at various places and incinerating insanitary waste. A video showing this transition was filmed and edited by Louk Vreeswijk and is available on You Tube:

https://www.youtube.com/watch?v=KHvK7Qve6OQ&t=679s

About a quintal a month of recyclables were being collected and stored in the premises of the Cantt Board Office. The plastic waste was sorted to remove laminates and handed over to the PWD for road construction. Glass, paper and metal was sold to informal waste dealers.

Green Hills assisted the Cantt sanitation inspector in organising events in October 2017 during the *Swachhta hi Sewa Abhiyan* by designing posters for it, screening films on sanitation and organising a talk on the impact of sanitation on public health by Dr. Sollinder of Uttarayana Foundation.

In January 2018, two university students were tasked with conducting a survey of households in Cantt to inform them of the Swachta Survekshan 2018 and to get their feedback on the new system introduced six months earlier. Except for Sprindale School, all the 143 persons interviewed said they were segregating their waste into three and were satisfied with door-to-door collection of it. They also felt that cleanliness in the area had improved. They suggested that small bins be erected along the roadsides for people to deposit wrappers, bottles, etc. The survey also helped to identify those who would be willing to compost their green waste themselves near their homes, thus reducing the load of the waste collectors.

The spectacular progress made in three months by residents in segregating their household waste proved the viability of the system and the feasibility of putting an end to dumping of waste that has disastrous consequences for the environment particularly in mountainous regions.

Plastic waste collection in Almora town

Under the Service Contract with the SDC, Green Hills hoped to replicate the transformation achieved in the Cantt area in the civilian area of Almora. This contract had the added advantage of allowing the organisation to achieve two complementary aims — improvement in the road infrastructure and reduction in the pollution of air, soil and water caused by dumping and burning of plastic waste.

A pre-requisite for the award of the service contract was an undertaking by the PWD, Kumaon, to use the plastic waste that would be collected in constructing roads. The trial of

this technology in Dehradun had met with success. Hence, an agreement was signed with them and later also adhered to by the PMGSY. Green Hills engaged a team of waste collectors to collect plastic waste each week from different parts of the town. The Nagar Palika supported Green Hills in this by providing two store rooms in the multi-storey parking building in which plastic and e-waste could be stored until quantities were sufficient for the PWD to collect. The project was launched with a press conference in September 2017 which was attended by all the local Hindi newspapers and electronic media. It was broadcast on ETV and articles were published by Amar Ujala, Dainik Jagran and Uttaranchal Deep.

Collection began with three wards. By March 2018, this had expanded to eight of the eleven wards under the Nagar Palika, plus two neighbouring villages. Rallies involving NCC cadets were used to motivate the public to participate by segregating their plastic waste and handing it to the "men in yellow jackets" on their weekly rounds. The plastic collected would help to improve the state of the roads in the district. Awareness raising was also done by

Green Hills in primary schools.





Gradually, more and more households started keeping their plastic waste separate and giving it to the Green Hills team. This was transported on motorbike to the store rooms in the town centre.



The plastic waste collected was sorted and weighed regularly. In six months, about 5 tonnes of plastic was collected and handed over to the PWD and PMGSY for further processing at the plastic recycling factory in Kathgodam. This will be used in road building in the coming months.

Encouraging replication

We have had several opportunities to speak about the programme in different fora. We were invited by the Azim Premji Foundation to speak to a group of 50 to 60 teachers in Pithoragarh on waste management. Some of the teachers exhibited examples of craft work in which plastic waste was upcycled. An environment protection organisation, Hariyali, was interested in replicating this programme there.

A citizen's group in Nainital, the Nainital Nagrik Association, invited us to share our work with their members at a meeting held on October 9 in the Grand Hotel, Nainital. They too are interested in replicating the programme there.

The Green Hills Secretary was invited by the Patanjali District Yog Samiti to speak at a public meeting in the Forest Department Conference Hall about recycling of plastic waste.

A presentation on plastic waste collection in Almora was made at a meeting in Champawat on sustainable development in Uttarakhand organised by the DIAS foundation from February 22 to 24. About 200 persons, including 50 international students participated in this meeting. The MP from Almora, Mr. Ajay Tamta, congratulated Green Hills on its performance.

In conclusion

Finally, it must be noted that the commitment and enthusiasm of our supervisor and the waste collectors has been admirable and is greatly responsible for the success of the programme so far. It is hoped that when our contract with the SDC terminates, the Nagar Palika will continue the work being done by the Green Hills team so that the 50 or 60% of households that are now segregating their waste will continue to do so.
