

Academic Year 2019-20
CHAS COLLEGE CHAS
Best Practices

Best Practice 1

1. Title of the Practice: Polythene-free Village

2. The Context that required the initiation of the Practice:

India generates nearly 26,000 tones of plastic waste every day which makes it the 15th biggest plastic polluter in the world. Pollution cause several health related problems in humans and animals. Discarded plastic waste litter the country's roads, rivers and also form huge pile of garbage dumps across the country. During the monsoon, water accumulates in plastic bottles which become breeding ground for mosquitoes. Plastic chokes the drainage system of the city and it also restricts ground water recharge during monsoon which leads to crisis of water during summer.

As a step towards containing plastic pollution we took the initiative to minimize the use of plastic for which we selected nearby villages where we organized campaign to educate people about adverse effects of plastic on health.

3. The Objectives of the Practice:

Environmental degradation due to pollution and other human activities are the major causes of global concern. Major objectives of this activity were to save the environment, save earth, and to save organisms including the life of human beings. Some other objectives were –

- A. To stop or minimize the use of plastic
- B. To control pollution related health problems
- C. To ensure recharge of ground water during rainy season
- D. To make water available for drinking and agriculture

4. The Practice:

We selected five villages (Kura, Diwanganj, Durgapur, Kandra and Kamaldih) to make the villages plastic free. This programme was organized by the Unnat Bharat Abhiyan (UBA) cell of the college. UBA is a flagship programme under MHRD, New Delhi and IIT Delhi. We organized rallies in the villages to highlight the adverse effect of use of plastic. Our students took part in large number in this activity. We suggested the villagers to use alternative materials in

place of plastic. One such material suggested by us was cotton bags. We collected plastic from villagers and gave them cotton bags free of cost. The cotton bags were stitched in such a way that it was like hand kerchief that can be kept in the pocket. When it so required, the cotton bag cum hand kerchief in the pocket can be used for both purposes as bag and as hand kerchief. In place of simple hand kerchief people can keep bag cum hand kerchief distributed by us.

5. Obstacles faced if any and strategy adopted to overcome them:

It was very difficult to convince people not to use plastic bags. The villagers were of the view that plastic had become part and parcel of their life which cannot be dispensed with. They asked us the alternative material to be used in place of plastic. Our teachers, staff and students tried to convince them the bad effects of plastic on health and domestic animals. An NGO named SAMMAN FOUNDATION helped us at their best in the plastic-free village campaign of the college. We suggested the villager alternative materials to be used in place of plastic. We distributed one such material made of cotton. This was a bag cum handkerchief designed by us. This can be kept in pocket which can be used for both the purposes as bag and hanky.

6. Impact of the Practice:

We convinced villager that use of polythene is harmful to health and environment. Plastic pollution is also responsible for shortage of water in the area. Villager accepted the fact and promised to minimize the use of plastic in the village. They became very happy to get hanky cum cotton bag as an alternative of the plastic. Some other impacts of this initiative are –

- Villagers are now aware that restricting the use of plastic is necessary for conservation of nature and water resources.
- They are now convinced that plastic cause diseases.
- They accepted the fact that plastic is also responsible for shortage of water in the village.

7. Resources Required:

This activity was organized with the help of students and SAMMAN FOUNDATION. A part of the resources required was arranged by the foundation. We purchased cotton cloth for bag making which was specially designed and stitched. So it did not require much financial resource.

8. About the Institution:

Name of the Institution: Chas College Chas, Bokaro

Address: P.O – Kura, Diwanganj, Chas, Bokaro, Jharkhand – 827013

Year of Accreditation: 2016, Grade awarded by NAAC: B

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Best Practices 2

1. **Title of the Practice:** Use of Solar Energy: A Step towards Protection of Environment

2. **The Context that required the initiation of the Practice:**

Thermal Power plants are the major source of generation of electricity for any developing country. Around 60% of electricity generation in our country is met by thermal power plants. The thermal power plant has serious impacts on land, soil, water and air as it emit large amount of Carbon dioxide, mercury and generate large quantity of fly ash which destroys the surrounding environment. These plants also consume a large amount of water. Thermal power generation accounts for 80% of India's industrial emissions which are sources of pollution and disease in humans and animals.

India has pledged to United Nations Organisation (UNO) under the Kyoto Protocol to reduce 33-35% of carbon dioxide emissions by the year 2030 (as compared to 2005 levels).

The Clean Development Mechanism (CDM) under the Kyoto Protocol to United Nations Framework Convention on Climate Change (UNFCCC) provides an opportunity for the Indian power sector to earn revenue through the reduction of greenhouse gas emissions (GHG), particularly carbon dioxide (CO₂). India has tremendous potential for CDM projects. Power generation using renewable energy sources such as solar energy are some of potential candidates for CDM in the power sector.

Keeping in view the commitment of India to the UNO and potential of India in green energy generation, we decided to reduce load on the power grid of electricity generated by the conventional method. As per our decision we installed 10 KVA Solar Power Generation System on the roof top of our college.

3. **The Objectives of the Practice:**

Major objective of the practice was to reduce carbon emission to honour the commitment of our country to the United Nations Organisation (UNO). Other objectives were –

- A. To reduce emission of green house gases and fly ash to control pollution
- B. To control health related problems

- C. To switch to uninterrupted power supply generated by the solar power
- D. To control Global warming
- E. To reduce water and land pollution
- F. To protect ecology and environment

4. The Practice:

The matter of scarcity of electricity was discussed in the IQAC meeting. In the meeting the matter of commitment of India to UNO for reduction of Carbon Dioxide was also discussed. And finally it was decided to switch a part of our electrical load to Green energy, the solar energy. It was also a step towards our commitment to UNO for carbon dioxide reduction. As per our decision; tenders were invited for installation of roof-top 10 KVA solar power generation systems on our Arts Block building. This solar power system was sufficient to withstand full load of electrical demand of this building.

5. Obstacles faced if any and strategy adopted to overcome them:

Jharkhand is in temperate zone of India so we have plenty of solar energy to be used. But the problems associated with this zone are storms and thunder. Storms break and displace the solar plates and similarly thunder destroys the whole set up. Monkeys also make problem by disturbing the plates and connection of wires.

To solve the problem of storm we raised walls around the solar plates. For protection of surge due to thundering we developed very strong electrical earth system.

6. Impact of the Practice:

Major objective of this practice was to reduce load on the electrical grid and by doing so to honour our commitment to the UNO under Kyoto protocol. Some impacts of the practice are –

- Total requirement of Arts Block electricity is met by the solar system.
- Reduced expenses on electrical bill.
- Uninterrupted supply of electricity
- A step towards green campus initiative and pollution control

7. Resources Required:

It required good amount of financial resources for which we thank RUSA for providing the money required. We were fortunate to have all natural recourses specially plenty of sun light required for establishment of solar power system. We had open roof top where the system was installed.

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