

**Management Students
Seek Solutions to
Environmental and Social
Problems**

Vidya Pratap
Assistant Professor
T.A.Pai Management Institute
Manipal-576104
Karnataka, India.
Email: vidya@mail.tapmi.org

TAPMI WORKING PAPER SERIES NO. 2005 /29

The objective of TAPMI working paper series is to help Faculty members of TAPMI to test out their research ideas/findings at the pre-publication stage.



T. A. Pai Management Institute
Manipal -576 104, Udupi Dist., Karnataka

Management Students Seek Solutions to Environmental and Social Problems

Vidya Pratap, T.A.Pai Management Institute, Manipal

vidya@mail.tapmi.org

This paper presents activities undertaken by management students in studying local environmental problems, providing relevant information and suggesting solutions to businesses and residents in the community. This process involves understanding underlying issues, gathering information and bringing about environmental awareness about sustainable waste management practices among students (involved in the project) and the local community. The paper includes data about waste management practices of residents as well as business enterprises, their awareness levels, their intentions and willingness to recycle. The mutually beneficial projects are intended to bring about a behavioural change in waste management practices and add value to management education.

Keywords: environmental awareness, sustainable waste management, management education

Introduction

Human actions committed knowingly or unknowingly are harming the environment. Increasing environmental awareness of the society can reduce environmental damage to some extent. Management students play a crucial role in bringing about this awareness in the society. This effort is mutually beneficial as it leads to increased knowledge, higher sensitivity and greater social responsibility for both the students and members of the society. Management education can be further strengthened by encouraging students to get involved in solving socio-environmental problems.

The three activities include the management of non-infectious solid wastes at a local hospital, the management of domestic waste in a local residential area and the existing system of waste disposal of a few selected local business enterprises.

Activity 1:

Management of Non-infectious solid wastes at Kasturba Hospital, Manipal

Objectives:

- To reduce the cost of incinerating non-infectious solid wastes through segregation of waste at source.
- To create awareness among in-patients, out-patients and staff of the hospital regarding organic waste and recyclable items
- To link the hospital to a scrap merchant who will accept all non-organic wastes for recycling.

Existing waste disposal method at the hospital:

At present, “single” bins are placed in each general category/semi-special/special/super deluxe ward of the hospital for in-patients and in all waiting areas for out-patients. These bins are used for organic matter like left-over food and fruit peels as well as inorganic matter like plastic wrappers, bags, bottles etc. There is no segregation being done either at source or after collection of waste. Instead all this waste is incinerated, incurring an expenditure of an average of Rs. 11,000 per day. This cost includes the maintenance of the incinerator, cost of daily transportation of the waste in trucks, maintenance of the trucks and salaries of the drivers.

I was requested by the Medical Superintendent of the hospital to devise a method of managing the non-infectious waste so as to reduce the high cost of disposing it.

Composition of non-infectious waste:

On closer inspection of the waste, it was evident that apart from the waste generated by the patients, there was a large amount of carbon paper waste from the billing section of the hospital.

The waste generated by the patients included leftover food in liquid, semi-solid and solid form; fruit peels, biscuit, chocolate and chips wrappers, soiled plastic bags and soiled/dry paper.

The role of management students:

As part of the two year PGDM in the new restructured programme, students are required to undertake a project in an NGO for a period of two weeks. Thus a group of seven students were given the task of waste management in the nearby private, multi-speciality hospital, Kasturba Hospital at Manipal.

Methodology:

The identification of how waste is disposed involved the following steps:

- a) Detailed discussions with the Housekeeping Manager;
- b) Inspection of bins in randomly selected wards;
- c) Talks with in-patients to find out whether they would be willing to separate food waste from other inorganic waste;
- d) Talks with the scrap-merchant to see the possibility of recycling items like plastic bottles, paper and glass and
- e) Finding out if an owner of a piggery would be willing to accept organic waste from the hospital.

The process:

- a) Students were involved in discussions with the Housekeeping Manager in order to i) understand the entire cycle of non-infectious waste disposal in the hospital; ii) decide the type of bins for each type of waste. Statistics of the cost involved for the past one year were provided; and iii) decide whether separation of wastes has to be implemented throughout the hospital in one go or to implement it in stages.
- b) Students and I assessed the existing waste disposal system, right from the number of bins installed, the type of wastes generated and the manner in which the waste is disposed into the bin to the incineration stage in order to understand the waste disposal behaviour of the patients. This process gave us insight into the various habits and practices of patients, for example, how patients wash their hands after a meal over their plate which would make the leftover food soggy and wet; and how food is brought from outside in plastic bags wrapped in paper.
- c) Talks with randomly selected patients revealed that they were willing to use the right bins for organic items and recyclable items.

- d) The only scrap-merchant who was willing to come to individual institutions and residences to collect recyclable items was invited to discuss with the Housekeeping Manager. The main points on the agenda were a) whether the scrap merchant was willing to accept non-infectious waste from a hospital; b) whether he was willing to separate non-recyclables like certain types of plastic from the recyclable items and c) the frequency of his collection.
- e) Telephonic calls were made to the owner of a piggery to enquire if he was willing to accept the organic waste from the hospital. This made the student plan a three-bin system of waste separation (Bin I for organic waste, Bin II for soiled plastic and paper and Bin III for clean plastic and paper). On receiving a positive response from the owner of the piggery, further calls were made to find out if he was willing to remove soiled plastic and paper from the organic waste. Again there was a positive response. This made us suggest a two-bin system (Bin I for organic waste along with any soiled plastic and paper and Bin II for all dry waste, most of which would be recycled) thus reducing the number of bins to be placed in each ward. We have also suggested a closed bin for the organic waste and the already existing bin for the non-organic waste.

Project Proposal:

A detailed proposal for managing the non-infectious wastes of a local, private hospital has been submitted to the Medical Superintendent. The proposal includes:

- a) A two-bin system for organic and non-organic items. The contents of the organic bin will be collected by the owner of the piggery who will remove all soiled plastic and paper from this bin. The contents of the non-organic bin will be collected by the scrap merchant who will recycle plastic, paper and glass items of the bin.
- b) Display of pictorial charts denoting the right usage of bins wherever the bins are located. Our students have agreed to prepare these charts.
- c) Pamphlets providing information about waste disposal methods to be distributed to in-patients along with other documents that are given to patients at the time of admission. Our students will be preparing these pamphlets.

- d) Nurses to verbally reiterate the usage of bins to patients as well as those accompanying the patient at the time of allotment of room/ward to the patient.
- e) Presentations to be made to the doctors and staff regarding the proposed waste management system.

Benefits to the hospital, the environment, the society and the students:

- The entire cost of incineration can be eliminated thus saving nearly Rs. 40 lakhs per annum to the hospital. On the other hand, income would be generated through the sale of recyclable items.
- Air pollution through incineration can be completely eliminated, thus protecting the environment.
- Awareness about segregation of waste can be created in those people who enter the hospital.
- The owner of the piggery would get free food for his pigs while the scrap merchant would have more items for recycling.
- Management students get the satisfaction of being involved in planning, participating and solving a social issue. They become the mediators of social change.

Activity 2:

Domestic waste management in a local residential area:

Objectives:

- To understand the waste disposal practices of the people in a local residential area.
- To create awareness among the residents regarding segregation of domestic waste at source.
- To provide an opportunity to I year management students to assist in solving socio-environmental problems.
- To divert recyclable waste to a scrap merchant and thereby lessen the amount of waste going to landfills.

- To find a solution for composting organic waste and thereby lessen the amount of waste going to landfills.

Existing system of domestic waste disposal in a local residential area:

Ananthnagar I and II Stages have 225 plots of which 20 are vacant. There are 205 houses all of which come under a society. The residents of Ananthnagar I and II stages pay Rs. 60 a month or Rs. 300 for six months towards clearing of domestic waste. Residents are required to pay the money at the society office either on a monthly or half-yearly basis. The task of daily collection and disposal of waste is outsourced to Mr. Sampath Kamath who has employed four workers to go daily to every house. Residents keep their garbage in a bin or in a plastic bag near their gate and these workers pick up the contents of the bin or the entire bag and put it into their wheelbarrow. They then empty their wheelbarrows into any one of the three small rooms built by the society for storing garbage. Before putting the garbage into the rooms, the workers rummage through each household's garbage looking for any recyclable items like milk sachets, cardboard boxes, iron rods etc. The workers sell these items and earn some extra money. But in the process of looking for recyclable items, the workers overturn each household's garbage, thus creating an inevitable mess. These rooms are cleared once a week by the local municipality and once by Mr. Sampath Kamath. The garbage taken from these rooms by the local municipality and by Mr. Sampath Kamath is taken to an open dump-yard and allowed to smolder.

Problem:

Residents were disposing their garbage in one bin or plastic bag. The garbage would be organic waste from the kitchen and garden, recyclable items like plastic and paper and hazardous items like batteries and fluorescent lamps. Quite often, crows, stray dogs and cattle would open up the plastic bags in search of food causing a litter around the place. Literature on disposal of waste emphasizes the ill-effects of burning mixed garbage.

The role of Management students:

A request for volunteers from 1st year management students to participate in information dissemination and data collection was made. Twenty students volunteered for this exercise. They had to first gather information about the waste disposal practices of the

household. In case the household was disposing mixed garbage, the students had to inform the resident about a) the problems of burning mixed garbage; b) the simple method of segregation of wastes; c) the benefits of recycling; d) the option of either composting organic waste in one's garden or in the garden of the President of the Society and e) the scrap merchant who was willing to come to the residences on two Sundays of a month and buy off all recyclable items, thereby diverting a considerable bulk of the waste from the landfill.

Methodology:

a) Initial talks were held with the President of the society, the students and Mr. Sampath Kamath. b) Students then visited all the 205 houses of the residential area. c) Discussion with the scrap merchant to find out if he was willing to go to individual houses and collect recyclable items.

The process:

a) Talks with the society's president, the management students and Mr. Sampath Kamath brought to light the problems of the society regarding domestic waste. The problems expressed by the President were i) litter in several unauthorized places in the residential area; ii) workers employed by Mr. Sampath Kamath open up each household's packet of waste and create further litter; iii) stray animals open up packets that have been kept out for daily collection; and iv) the local municipality is not clearing the garbage stored in the rooms, thus creating a strong stench.

b) Students visited all the houses of Ananthnagar (Stage I and II). Of the 205 houses visited, they gathered data from 97 houses. The rest of the houses were either locked temporarily or unoccupied. They collected data regarding the waste disposal habits of the households; their awareness level of waste disposal; their willingness to recycle; their awareness of recycling and data for further follow-up. Since the data was collected online, there was several advantages like immediate display of findings; savings on paper and time. Students also provided information to the residents about segregation of waste, about the willingness of the scrap merchant to come to houses to collect recyclable items for which the residents would be paid and about the availability of an alternative arrangement for composting.

c) Discussions were held with the scrap merchant to find out if he was willing to go to individual houses on a regular basis and collect recyclables. The scrap merchant expressed his willingness to visit on a bi-monthly basis those residents who wanted his services. This discussion was particularly beneficial to all residents as this was the only scrap merchant in this town who was willing to go house-to-house for collection. All the others expected the residents to bring their recyclable items to their shop.

Findings:

A. Demographic details:

Of the 97 respondents, 57.73% are graduates and above while 42.27% are non-graduates; 68.04% live in their own house. The average number of persons in the family is 4.

B. Waste Disposal Habits:

Organic waste (kitchen and garden waste):

28.87% of the respondents compost their kitchen waste in their own garden; 46.39% hand over their kitchen waste for daily door-to-door collection; while 24.74% dispose it by other means (feeding it to cattle or disposing it in a public dustbin). Regarding garden waste, 39.18% compost in their own garden; 15.46% hand it over for daily door-to-door collection while 45.36% dispose it by other means (burning in the backyard or disposing it in a public dustbin or did not have a garden).

Recyclables:

Newspaper:

77.32% of the respondents sell their newspaper to scrap merchants. Only 4.12% dispose it through daily door-to-door collection while 18.56% either do not buy newspapers or dispose their newspapers by burning it as fuel for heating water or dump it in a public dustbin.

Paper (other than newspaper, like mail, pamphlets, bills & receipts etc):

41.24% of the respondents sell their paper to scrap merchants; 25.77% dispose it through daily door-to-door collection while 32.99% dispose it by other means (use it as fuel or dump it in a public dustbin or claim not to have any paper).

Plastic (packets, milk sachets and bottles):

29.90% of the respondents sell their plastic items to scrap merchants; 48.45% dispose them through daily collection while 21.65% dispose them by either burning or disposing them in a public dustbin.

Glass bottles:

29.90% of the respondents sell their glass bottles to scrap merchants; 44.33% dispose them through daily door-to-door collection while 25.77% either do not use glass bottles or dispose them in a public dustbin.

Hazardous items (batteries, fluorescent tube-lights, bulbs):

Only 20.62% of the respondents sell their hazardous items to scrap merchants. 54.64% dispose their hazardous items through daily door-to-door collection while 24.74% claim not to use them or dispose them in a public dustbin or burn them.

Aluminium (foils & cans):

26.80% of the respondents sell their aluminium items to scrap merchants; 43.30% dispose them through daily door-to-door collection while 29.90% either do not use them or dispose them in a public dustbin.

C. General Awareness about waste disposal:

44.33% of the respondents were aware of what happens to their waste after it leaves their home while 55.67% were not aware. A high 87.63% of them were aware that burning of mixed garbage causes air and soil pollution while the rest (12.37%) were unaware. 81.44% of the respondents were aware of hazardous wastes while the rest (18.56%) were unaware.

D. Willingness to recycle:

95.88% of the respondents were willing to sell some of their wastes to scrap merchants while the rest (4.12%) were not. One respondent did not answer this question while another said that scrap merchants are not trustworthy.

E. Awareness of recyclable wastes:

Newspaper:

86.60% of the respondents were aware that newspaper is accepted by scrap merchants while the rest (13.40%) did not.

Paper (other than newspaper, like mail, pamphlets, bills & receipts etc):

75.26% of the respondents were aware that scrap merchants accept paper for recycling while the rest (24.74%) were not.

Plastic:

72.16% of the respondents were aware that scrap merchants accept plastic for recycling while the rest (27.84%) were not.

Glass bottles:

75.26% of the respondents were aware that scrap merchants accept glass for recycling while the rest (24.74%) were not.

Hazardous items:

48.45% of the respondents were aware that scrap merchants accept hazardous items while the rest (51.55%) were not.

Aluminium:

69.07% of the respondents were aware that scrap merchants accept aluminium items while the rest (30.93%) were not.

F. For further follow up:

70.10% of the respondents were willing to call the scrap merchant to come to their house to collect their recyclable items while the rest (29.90%) were not.

42.27% of the respondents were willing to hand over their organic waste for composting elsewhere while the rest (57.73) were not.

Analysis:

Regarding kitchen waste, it is imperative that we address those respondents who are not composting their kitchen waste in their garden. 46.39% of the respondents who are handing over their kitchen waste for daily collection need to be informed about segregating their waste into organic and non-organic wastes and not to hand over mixed garbage. 24.74% of respondents dispose their kitchen waste through other means. Those who feed this waste to their cattle do no environmental harm but those among them who dispose their kitchen waste in a public dustbin need to be informed about the litter caused by stray animals that open up their waste in search of food. Regarding garden waste, the 15.46% of the respondents who hand it over for daily door-to-door collection have to be informed about segregation while the 45.36% dispose it by other means (burning in the backyard or disposing it in a public dustbin or did not have a garden) need to be alerted about air and soil pollution. With reference to disposing newspapers, it is obvious that a majority of the respondents sell them to scrap merchants thereby going for recycling which is a positive sign. However, 18.56% of the respondents dispose them through other means which could be either disposing them in public dustbins or burn them for fuel. Both these methods are environmentally harmful causing soil and air pollution. Regarding paper (other than newspaper), a quarter of the respondents (25.77%) hands it over for daily collection while a third (32.99%) either burn or dispose it in public dustbins. It is hoped that through information dissemination, these percentages will reduce. When we view the percentages of respondents disposing plastic, glass, hazardous and aluminum items, it appears that only one third of the respondents dispose them through scrap merchants while the rest dispose them through daily collection or by other means (either by burning or in public dustbins) leading to soil and air pollution. When we look into the general awareness of the respondents, it is evident that more than half the respondents are unaware of what happens to their waste after it leaves their house. It appears that it is a case of “out of sight, out of mind”. But the percentage of respondents being aware of the consequences of burning of mixed garbage is high (87.63%). This shows that the respondents are aware of the consequences of burning mixed garbage, but are not actually making changes in their waste management behaviour. Similarly the percentage of respondents aware of hazardous items is high (81.44%) but only one fifth of the respondents (20.62%) sell their hazardous items to the scrap merchant for

recycling. The positive side of this project is that a high of 95.88% of the respondents have stated that they are willing to recycle thus indicating a positive impact of information dissemination by the students.

Coming to the respondents' awareness of recyclable items, it is evident that compared to other items like plastic, paper, glass and aluminium, awareness of the scrap merchant accepting hazardous items is low (48.45%). Again it is hoped that dissemination of this vital information by students will increase recycling of batteries, tube-lights and bulbs.

With reference to willingness to recycle, though 95.88% of the respondents appear to be willing to recycle, when asked if they would like the scrap merchant to come to their house to collect their recyclables, only 70.10% have accepted the proposition. It is not clear why there is a drop in this response. When we look into the statistics of follow up for composting elsewhere, a higher percentage of respondents (57.73% as compared to 42.27%) are unwilling to hand over their organic waste. This 57.73% of respondents includes those who are already composting their organic waste in their garden.

Students' learning from this project:

The learning of all the twenty students is summarized below:

- Awareness of waste disposal is quite high. One student mentioned, "...most of the residents had good knowledge about the pollution caused by the improper disposal of household waste and were concerned about minimizing the problem. What I found most amazing was that most residents had already taken steps to help the environment in their own way." Most residents were already practicing some waste management techniques like composting and selling to scrap merchants. On the other hand, another mentions that "most of the people were very much aware of the hazards of the solid wastes they generate and dispose quite unscientifically." Another student mentions that not many residents know what happens to the waste after it has been collected.
- Residents were positive towards waste management measures. For instance they were willing to help in improving the problem by segregating waste, calling the scrap merchant for selling their waste etc.
- Increasing awareness need not be unidirectional. For instance, it was assumed before the start of the project that students will be providing information to the

residents about sound waste management practices. But to our pleasant surprise, there were residents who were making students aware of the fact that recycling too many times is harmful to the environment. Another resident suggested bringing about environmental awareness in children as “(i)t’s the children who can influence their parents on these issues the most.” Another resident informed the students about lining the bin for organic waste with decomposable paper bags instead of plastic and to use coloured bins for different, separated wastes.

- Students get an opportunity to learn more about managing waste like composting. To quote a student, “(h)e queried us upon vermi-culture and asked us to propagate its advantages.”
- “Every drop of water makes an ocean. It takes a number of people to bring about a change in the society.” Also, “it takes a little garbage from each individual to ultimately pile up into hazardous waste.”
- Bringing about a change in one’s habits is not easy. Old habits die hard. Even though students informed a resident about pollution from burning paper, the resident was unwilling to change since an alternative way of heating water would be electricity for which he has to pay.
- Students got an opportunity to learn to be creative regarding waste management. One resident informed a student about how she “was using some of the waste paper in her house to make collage and other craft items.”
- Students learnt how to deal with people, that is, how to deal with different people and how to handle them. One student states, “(i)t was a great experience to interact with all kinds of people – different mindset, different age group, and different educational background.”
- One student hypothesizes that higher the education degree of the respondent, higher the awareness.
- The problems of implementing plans are well understood by students. One student remarks, “Through the project I learnt about the bottlenecks in implementation of proposed plans which I earlier thought were straight forward and necessary.”
- One student has felt “a need to educate the people about the cumulative effects of the “small quantities of waste” produced from their household.”
- Another student observed that students residing in this locality were not very concerned about the environment but they were cooperative.

- Time being a constraint for the students and the residents, the students learnt to “connect to the person” to whom he was speaking in the shortest time possible.
- Students too have become more aware of the problem of waste management. This is evident from the learning note of a student which states, “I have become more aware and responsible about this problem myself.”

Benefits to the society, the environment and the students:

- The residents have a cleaner locality.
- With the diversion of recyclables from the waste, the amount of waste going to the landfill is considerably reduced leading to lesser soil and air pollution. Particularly, hazardous items like batteries and tube-lights are being recycled and not dumped in the landfill.
- Organic waste is converted to manure either in individual homes or in the residence of the society’s president.
- Students get a good understanding about the waste disposal behaviour of the residents as well as the problems encountered by them.
- Students act as the mediators of social change and in the process try to convince the local people into better methods of managing domestic waste.

Activity 3:

Creating environmental awareness in local businessmen

Objectives:

- To understand the current waste disposal practices of the local shopkeepers.
- To ascertain the level of environmental awareness in the society.
- To create awareness among them regarding segregation of waste at source and about recycling.
- To understand the distinction between recyclable and non-recyclable products of daily use.
- To link the scrap merchant and the shopkeepers so as to increase recycling rather than dispose waste in ways that harm the environment.

Existing system of waste disposal of business enterprises in Udupi & Manipal:

Observations of areas beside or behind shops, restaurants and other business enterprises in Udupi and Manipal show evidences of environmentally harmful waste disposal methods like burning or just dumping in vacant areas or open dustbins creating not only air and soil pollution but also an eye-sore.

The role of management students:

Our second year management students have the option of selecting in their 8 & 9 Theme at least one of the three compulsory courses, that is, Corporate Social Responsibility, Corporate Governance and Environmental Issues. Eight students had registered for the course, "Environmental Issues". These students were informed that the entire course was projected based with no classroom sessions. They were briefed about the objectives of the project (mentioned above). Students were also instructed to submit at the end of the project their experiences and learning from the project.

Methodology:

The eight students divided themselves into two groups of three (Group A and B) and one group of two (Group C). Convenience sampling was used to select business enterprises in Udupi and Manipal like restaurants, retail stores, medical outlets, a salon, a photo studio, petty shops selling cigarettes, chocolates, biscuits, coffee, tea and juice. Group A also visited a local scrap merchant to find out those materials that can be recycled and those that cannot be recycled.

Findings:

Group A visited, apart from a scrap merchant, a restaurant, a provision store, a vegetable-fruit outlet, a resident, a gift shop, a cell phone vendor, a medical store, a photo studio, a petty shop and a salon. Out of these only three carried out some form of waste management like reusing or recycling or giving food waste to piggeries. All the rest were either dumping or burning their inorganic wastes like paper and plastic. Unfortunately, none of these seven was keen on recycling as it required them to store these items for a period of time. They preferred to continue their habit of clearing their shops and dumping their wastes in vacant areas or open dustbins.

Group B visited three restaurants, a sweet shop and a bakery in Udupi, five petty shops, a garage, a shoe repair outlet, a retail outlet three restaurants and two Nescafe outlets in Manipal. In the business enterprises at Udupi, organic waste was given to piggeries while certain recyclables like newspapers were sold to scrap merchants. But several inorganic items like plastic bottles and bags, plastic cups and spoons were disposed in municipal dustbins. Regarding the business enterprises in Manipal, the restaurants disposed their organic waste by selling it to piggeries. The inorganic waste was either burnt or disposed off in open bins. Students who visited the business enterprises at Udupi found that the reason for the low willingness to adopt better methods of disposing waste could be any one or more of the following reasons:

- Lower proportion of inorganic waste as compared to organic waste;
- Convenience of existing waste disposal methods;
- Lack of awareness of better methods of waste disposal;
- Better methods of waste disposal are not worth the effort or are time consuming.

The business outlets at Manipal visited by one student are smaller shops. Waste in these shops include, small pan sachets, cigarette packets, plastic packets and paper. The reasons given by these vendors were as following:

- Scrap merchants do not pay enough for the trouble taken in collecting and storing waste;
- The waste is insufficient in terms of quantity to call scrap merchants;
- Scrap merchants are not keen on coming to these vendors to collect their waste;
- It is a tedious exercise to undertake. The time period required to collect a substantial amount is too long;
- There is insufficient space in the shop to store their waste;
- It is easy and less time-consuming to burn.

Group C visited twenty five business enterprises of which thirteen businessmen expressed willingness to participate in recycling depending on the frequency of collection by the scrap merchants. These thirteen outlets include five restaurants, two milk parlours, four stores, a stationery shop and a photocopying shop. At present these outlets disposed their waste by either burning, or in municipal dustbins or by rag-pickers. At present their

waste is disposed twice or thrice a day because of the large quantity generated. Their unwillingness to store waste for a week was due to any of the following:

- Difficulty in sorting waste into different categories;
- Lack of space to store waste;
- Wet waste will emit a stink;
- Time required to sort the waste;
- The quantity of waste is too large to store for a week;
- Unwillingness to change the current system.

Students' learning from this project:

The learning of all the eight students is summarized below:

- Awareness of good waste disposal methods in the businessmen interacted is poor. They are unaware of the different types of wastes. For them paper, plastic, etc are all the same. They have no qualms about burning plastic and thus releasing harmful gases in to the air. "I feel that awareness is the biggest block in success of such projects. People are not aware of hazards of waste disposal and hence do not take the issue seriously." Another student states, "Some of them even did not know what type of waste products are generated by them." I quote a student, "...the whole process left me with an impression that they were not aware of the extent of damage these waste products are doing to the environment."
- People are not concerned about money. Even if they are offered money by the scrap merchant to keep waste for one week, "their response was that they wanted to dispose waste at earliest possible."
- "Time is another factor which is emphasized in every discussion. All the shop keepers prefer minimum time to be used in disposing waste and hence we felt that segregating waste was always looked at without interest."
- Initiatives should be taken by the Municipality or voluntary organizations to bring about awareness in the society.

- One student expressed that he got an opportunity to interact with local entrepreneurs and he feels that entrepreneurs can become more efficient if they work together with the government regarding waste management.
- The perception of the owners of small shops is that waste management is an expense and any effort in this direction will reduce one's revenue.
- Eliciting information from businessmen about their waste disposal ways is difficult as they are not comfortable sharing this information. Students have expressed difficulty in making people understand the importance of the environment.
- Students have been sensitized to waste management methods of the local businessmen.
- They have learnt about good practices of waste management and the benefits of recycling and reusing and also about generating energy from waste.
- They have understood the importance of environmental protection and conservation.
- One student has expressed that he has realized the social benefits of non-littering. But more importantly, he has felt a sense of belonging towards nature and environment.
- Another student has stated that as a student of Management, there is a big opportunity for him to educate people about efficient waste management practices to make their environment clean.
- Students have realized that a great deal of items that one considers a waste and discards in dustbins can actually be recycled if sold to scrap merchants.
- Entrepreneurs were not willing to make changes in their daily habits. Instead they wanted others to adjust to their needs.
- A deep sense of satisfaction for having contributed to environmental protection and conservation and in bringing about a certain amount of environmental awareness in the society has been felt by students.

Conclusion:

Management students can play a significant role in bringing about change in the society. They can act as mediators of social change. In the process of creating awareness in the society, they become more aware of and sensitized to social problems. Information is passed on in both directions and thus learning takes place. Bringing about change is not an easy task as it deals with changing one's daily habits and ways of doing. But by creating awareness about the bad effects of our daily activities we can hope to see a cleaner environment, lesser pollution and a responsible society.

Acknowledgement:

I acknowledge the help given by the following students in data collection, increasing environmental awareness and in environmental protection:

Activity 1: Aditya Shrivastava, Jenny Nirmala KMT, Manav Singhania, Neha Shukla, R. Karthik Subramaniam, Rajat Mohan, Shweta Sinha, Varun Gupta.

Activity 2: Somnath Chatterjee, Bulbul V. Gopalani, Sazeal Shah, Aditya Aravind, Deepa Dhanalakshmi, Mamata Demashetti, Nayak Megha Madhukar, Priya Venugopalan, Rahul Jhavar, Archana Nayak, Sathvik G.V., Vipul Mahajan, Vipin Venugopal Pillai, Nimish S. Kumar, Rohit Prasad Sharma, N.S. Harsha Vardhan, Harsha G. Chachadi, Abhishek Jain, Anshul Gadia and Sushma Sonti.

Activity 3: Abhinav Arya, Harkamal Jit Singh Sandhu, Vikas Arora, Nikunj N. Sinha, Abhijit V. Shetty, Mithun Bhat, Sunil Kulkarni and Preetinder Walia.