

Report

Training Programme

(June 4th to June 5th, 2018)

On

Sustainable Waste Management Practices for Urban Local Bodies

**(Under CITYNET India National Chapter members)
Sponsored by HUDCO's Human Settlements Management
Institute**



Coordinated by:

Centre for Sustainable Habitat

HUMAN SETTLEMENT MANAGEMENT INSTITUTE, NEW DELHI

(Research and Training wing of HUDCO)

HUDCO's HSMI, HUDCO HOUSE, LODHI ROAD, New Delhi – 110003



PREFACE

India was the global host of 2018 World Environment Day, which was celebrated on 5th June 2018. World Environment Day is a UN Environment-led global event, the single largest celebration of our environment each year, and is celebrated by thousands of communities worldwide. It was first celebrated in 1972, and since then it has grown to become a global platform for public outreach that is widely celebrated across the globe. The Theme this year was “Beat Plastic Pollution” and it aimed to bring the world together to combat single-use plastic. It urges governments, industry, communities, and individuals to come together and explore sustainable alternatives and urgently reduce the production and excessive use of single-use plastic polluting our oceans, damaging marine life and threatening human health.

HUDCO's HSMI organised a training programme on “Sustainable Waste Management Practices for Urban Local Bodies” for CITYNET India National Chapter members and other Urban Local Bodies on 4-5 June, 2018 at New Delhi. HUDCO is an associated member of CITYNET since 1993 and is also lead institution for the CITYNET India National Chapter established on 16th December, 2013. The objective of the programme is to provide a sound understanding of principles of sustainable waste management. The training programme coincided with World Environment Day.

HUDCO's HSMI is recognized as a leading research and training institution in the housing and urban development sector and is involved with capacity building both at the regional and national level for more than 30 years. HUDCO's HSMI has been designated as a national resource centre for giving technical inputs in the policies and programmes pertaining to housing and urban development of the Ministry.

CITYNET is the regional network of local authorities for the management of human settlements. CityNet is the largest association of urban stakeholders committed to sustainable development in the Asia Pacific region. Established in 1987 with the support of UNESCAP, UNDP and UN-Habitat, the Network of cities has grown to include over 135 municipalities, NGOs, private companies and research centers. Citynet connects actors to exchange knowledge and build commitment to establish more sustainable and resilient cities across Asia – Pacific region. Through capacity building, city-to-city cooperation and tangible projects, it helps its members respond to Climate Change, Disaster, the Sustainable Development Goals and rising Infrastructure demands. (citynet-ap.org)

ACKNOWLEDGEMENTS

The Two day training programme on “Sustainable Waste Management Practices” for CITYNET India National Chapter members (and other ULBs) on 4-5 June, 2018 has given us a great opportunity to play an active role in the World Environment Day celebrations at HUDCO’s Human Settlements Management Institute. We would like to express our gratitude to CMD, HUDCO as the Chairperson of the Citynet National Chapter – India and Sr. Executive Director, Dr D Subrahmanyam as Secretary General, Citynet for entrusting the task of training the ULB officers and Citynet national chapter members to us. Special thanks to Mr Rajiv Sharma and Ms Nila Pandian for their efforts and inputs.

We are happy that the training programme was completed successfully on 5 th June, 2018. We would like to acknowledge the contribution of many individuals, institutions and agencies in making this programme a success. For their valuable support in contacting the ULBs in their Regions, the HSMI team would like to thank Regional Offices of Dehradun, Chandigarh, Ahmedabad- officers and staff. We would like to thank the entire external faculty for their cooperation in giving informative presentations and interesting sessions. This project would not have been possible but for the insights and guidance from DrS K Gupta, Executive Director (Training). This training would also not have been complete without the contribution of Training Incharge – Mr Surendra Singhai and HUDCO/ HSMI administration and hostel incharge Mr Ritabrata Ghosh and Mr Sanjeev Nakra respectively.

We are confident that the information presented in this Report shall be of use to Citynet and HSMI.

Sachin Gautam
TO(P)

Pooja Nandy
DGM (P)

Course Director's Report

The aim of the course is to provide the participants with a sound understanding of principles of sustainable waste management. The training programme coincides with World Environment Day. India is the global host of 2018 World Environment Day which will take place on June 5, 2018. With “Beat Plastic Pollution” as the theme for this year's edition, the world is coming together to combat single-use plastic

OBJECTIVES OF THE PROGRAMME

- To provide the participants with an understanding of challenges of waste management
- To provide exposure, through classroom study and technical site visits, of planning and designing aspects of waste treatment plants and waste to energy plants.
- To enhance the participants knowledge and technical capability for planning and designing of sustainable waste management solutions.

COURSE CONTENT

The course content consists of:

- Challenges of implementing Sustainable Waste Management
- Cause and effect of Plastic Pollution
- Waste Management and SDG 12 – responsible consumption and production
- Is plastic ban sustainable and effective solutions for reusing plastic?
- Issues in waste disposal

The programme schedule is placed at (**Annexure I**)

TARGET GROUP

This programme is primarily designed for municipal body officials, engineers, architects, town planners, landscape architects, urban designers, community development professionals, health and technologists. Participation of Citynet member organisations was also encouraged. There were 26 participants from ULBs, SPA, AILSG, HUDCO and other institutions placed at **Annexure II**.

ENVIRONMENTAL CONCERNS ON WORLD ENVIRONMENT DAY JUNE 5, 2018

Govt. of India, Minister of Environment, Forest & Climate Change and Ministry of Housing and Urban Affairs have urged HUDCO to adopt a two pronged action initiative -

1. Awareness on Environmental Conservation and
2. Theme based awareness to “Beat Plastic Pollution”

HUDCO'S ACTION PLAN ON “BEAT THE PLASTIC POLLUTION”

HUDCO has embraced this cause wholeheartedly and a series of initiatives are being undertaken to this effect on a pan India basis through the HUDCO network of Regional offices and also at the Head Office and HSML. These include:

All HUDCO employees are encouraged to refuse, reduce and reuse plastic in their daily uses. Furthermore HUDCO pledges for a plastic free environments in all its office premises.

- Single use plastic water bottle, take away coffee cup, lunch wrapped in disposable plastic bags, disposable food service cups, plates and containers made of polystyrene, plastic straws are banned in HO/ HSMI/ RO premises.
- Use of biodegradables and other types of composite utensils is encouraged in place of plastic.
- It is further encouraged to use durable, foldable and inexpensive reusable bags that can easily be carried in the car, pocket or purse.
- The use of plastic bottles is discouraged instead glass, steel or clay bottles are heavily recommended.

HSMI and Regional Offices are organizing sensitization workshops for their employees by inviting eminent speakers to deliberate on the topic “Beat Plastic Pollution”. In addition to this awareness is also being created through banners, which have been displayed Prominently in the office, notice boards etc.

HSMI has organized this training program on **“Sustainable Waste Management Practices For Urban Local Bodies”** under the CITYNET India National Chapter.



Group photograph – CMD HUDCO With HSMI faculty and participants

Pooja Nandy
DGM(P)

Surendra Singhai
GM(P)

PROCEEDINGS

1st Day (04-06-2018, Monday) **Inaugural Session**

In the inaugural session, Dr M Ravi Kanth, CMD, HUDCO extended a warm welcome to the participants. He quoted Mahatma Gandhi that there is **enough** on the **Earth** for **everybody's need**, but not **enough for everybody's greed**. The world is hitting global limits in its use of resources. He highlighted the need to reduce consumption and thereby reducing waste. He pointed out that the threat posed by plastic pollution has assumed a mammoth form and it is the need of the hour that all of us unite to combat it. Dr Ravi kanth, CMD felt it was a matter of great pride and honour that India is the **global host**



Figure 1: Dr M Ravi Kanth, CMD HUDCO & Dr D Subrahmanyam Sr ED

of 2018 World Environment Day. The Theme this year is **“Beat Plastic Pollution”** and it aims to bring the world together to combat single-use plastic. He share that HUDCO’s CSR activities further the cause of achieving sustainable human settlements through various projects including initiatives to promote solid waste management. Some of the waste management projects supported by HUDCO include, provision of equipment for solid waste management, at

various locations through urban local bodies and different government departments.

CMD HUDCO also launched the Citynet webpage <https://hudco.org/Citynet.aspx> hosted by HUDCO for the CITYNET India National Chapter. HUDCO’s HSMI had proposed several activities during the CITYNET Congress 2017, to be undertaken by HUDCO’s HSMI as the National chapter lead institution. This two day training programme is one amongst these proposals that are also available on the newly launched website.



Figure 5: Dr SK Gupta, Mr Surendra Singhai, Mr Teotia and participants



Figure 4: Ms Ruchika, Ms Nila, Mr Joshi & participants



Figure 3: Mr Akshay, Ms Pooja & Mr Ritabrata

1st Day (04-06-2018, Monday)

**Session 1 - Environmentally Sound Management of Toxics in the Waste Stream
(Chemicals/ Bio-Medical Waste/ Electronic Waste, POPs & pesticides)**

- Ms. Priti Mahesh, Toxics Link

Ms. Priti Mahesh covered details of Issues related to toxic wastes and treatment policies for the management of waste.



Toxic wastes- The toxic wastes are harmful to health and the effects may be seen immediately or over a period of time. She explained the varied harmful effects of Toxic wastes on health. The urgency has been felt world wide to recognise that deaths are caused due to environmental causes such as pollution from toxic wastes.

She discussed the treatment policies for Environmentally

Sound disposal of waste for the Indian situation. The two policies widely recognized are Incinerators and Sanitary Landfill sites. She described the trade off between the two methods with respect to the technology, economic implications, prevailing conventions like the BASEL Convention and the EPA.

Then she gave the data about the composition and proportion of the Biomedical waste, Hazardous Waste, E- waste etc. and the properties such as composition of each type. She also mentioned that the data available is not very reliable and more accuracy is required for better monitoring and management. The biggest health hazard posed by plastic waste getting into the food cycle due to bio accumulation of plastic.

The major concerns identified were exposure due to disposal of Lead acid battery, Domestic hazardous waste, management of chemicals in waste and persistent organic pollutants.

Ms Priti described the example of Indore for its cleanliness and beauty which has been made possible by the efforts of the local population and the local bodies.

1st Day (04-06-2018, Monday)

Session 2 - Issue & Challenges in Sustainable Waste Management

- Dr. N B Mazumdar, Sulabh International

Dr N B Mazumdar started his session by introducing the present challenges in the sustainable management of Municipal Solid Waste. He explained that the concept of Total Sanitation was very important for the perception of cleanliness that characterises any place. For the implementation the most important tool is planning. Apart from long term interactive planning, the capability to manage, institutional capacity building, advocacy and public awareness, selection of appropriate technology (proven and affordable under the given

circumstances) are also required. Moreover the inclusion of decentralised system for the



SWM in the Landuse plan, MIS based continuous monitoring, Digitisation and e- governance are also the need of the hour.

For the Planning and designing of environmental initiatives with respect to SWM the Rules of 2016 prescribe segregation at source into three components- biodegradable or wet, non-biodegradable or dry and domestic hazardous. The ULBs have to make provision for collection, transportation,

processing and disposal and also look at the Life Cycle Cost of the various alternatives. With appropriate processing and the 3R convention, upto 70%-90% of the sanitary landfill footprint can be saved. The various technologies available are composting, vermi-composting, biomethanation, preparation of RDF/ pellets and mass burning (dioxine and Furon are the harmful gases generated). He described the C & D waste plant set up by MCD & ILFS at Shastri Park, the wet waste processing at Burari which is marketing manufactured sand and RMC blocks being used in the new Supreme court building.

1st Day (04-06-2018, Monday)

**Session 3 - Natural Heritage and Plastic Pollution
- Eric Solheim, UN Environment Executive Director and Under – Secretary- General of the United Nations**



Mr Eric Solheim expressed his pleasure that India hosted the World Environment Day 2018 celebrations on the theme “Beat the Plastic Pollution”. He praised the rich cultural heritage of India and his respect for being one of the most ancient and culturally rich civilisations on earth. Since India is replete with tourism destinations of heritage value both natural

and cultural, the pollution due plastic in these places is a growing problem. There are instances of discarded plastic bottles, bags and wrappers marring the environment and

aesthetics of valuable heritage sites. He expressed anguish at the plight of ocean creatures and birds that are worst effected with the plastic debris in the oceans getting in their food cycle by direct intake or through eating smaller fish, phytoplankton etc which have plastic in the system. He praised the efforts being made by states like Maharashtra to ban single use plastics like disposable plates, spoons, glasses, straws. Eric Solheim also mentioned the tremendous progress being made in the state of Telangana towards achieving total sanitation and cleanliness. He pointed out the shift in attitude required to practice the 3 Rs, reduce, reuse and recycle. Mr Eric Solheim also interacted with the audience and addressed many queries. He assured the support of the UN in partnering the cause of preventing pollution.

1st Day (04-06-2018, Monday)

Session 4 - Awareness lecture on "Beat Plastic Pollution"

- Dr. Suneel Pandey, TERI

The Session on Impact of Plastic Pollution was taken by Dr. Sunil Pandey of The Energy and Resource Institute (TERI) New Delhi. Dr. Pandey covered various topics related to the impacts of plastic waste and how it affects humans and wildlife. He discussed various types of plastic wastes and what can be the possible solutions to manage and recycle them. He suggested that the use of single-use plastic should be minimized. The value of plastic should be increased so as to incentivize plastic collection. He highlighted the idea of Design for

Recyclability (DfR). He also highlighted some innovative ideas of using plastic waste in road construction and using tetrapack to make corrugated sheets. He emphasized that recycling of waste generates twice the jobs as compared to dumping of waste. He listed out the advantages of Landfill free cities such



as result in reduction of uncontrolled methane emission, reduction in landfill fire, resource recovery from waste and creation of green jobs.

2nd Day (05-06-2018, Tuesday)

Site Visit to Humayun's Tomb

The participants were taken to visit to Humayun's Tomb and witness the restoration and beautification work that had been undertaken in the heritage complex.



2nd Day (05-06-2018, Tuesday)

Session 1 - Waste Management and SDG 12- Responsible Consumption and Production

- Dr. Suneel Pandey, TERI

Dr. Sunil Pandey of The Energy and Resource Institute (TERI) New Delhi made a presentation on 'Waste Management and SDG 12'. He highlighted that how waste reduction is relevant to Sustainable Development Goal No. 12 – 'Sustainable consumption and production'. He talked about the various sub – goals under goal no. 12 like food waste, environmentally sound management of chemicals, waste reduction etc. He emphasized on the fact that the India is increasing becoming urban and how this spurt in urbanization will lead to increase in consumption of resource and generation of more waste. Hence sustainable consumption and production is the need of the hour for a developing country like India. He talked about Green growth strategy as tool for achieving for resource efficiency. There is a need to improve energy and material use efficiency if economic growth is to be sustained. He highlighted the example of Dharavi slum in Mumbai where recycling entrepreneurs have turned waste management into a \$1 Billion industry.

2nd Day (05-06-2018, Tuesday)

Session 2 - Plastic Pollution – Issue & Solutions: Case Studies for Plastic Reuse

-Dr. Shyamala Mani, NIUA



Dr. Shyamala Mani, discussed details of the quantum of plastic waste being generated. She informed that plastic waste generated was 5-6 million tonnes, which formed about 10% composition by weight of the total Solid Waste. The density of plastic being very low even the quantum of volume of plastic weight is extremely large. The externalized cost is high as it spreads easily. The Pacific Gyre is an example since 90% of floating debris in oceans is plastics. It is

estimated that 48% - 86% seabirds and marine mammals have plastics in their body. The plastic present in electronic waste that are also likely to contain lead and cadmium. The e-waste recycling list part A includes all Airconditioners, washing machines etc that are reprogrammable. CFL and tubelights are also included in the e-waste list since these too contain mercury. The B- list comprises all computer items and public awareness is required to be raised not to give these to kabadiwalas since they are not equipped to dispose off these items in an environmentally sound manner. She informed about the carcinogenic properties of styrene, toxicity of BFR (brominated flame retardants) and Bisphenolic A found in milk bottles of infants. There is a study by UC Davis identifying an autism cluster in the child population near the ocean. A EU study discovered the similarity of BFR to thyroxine which leads to its take up by the thymus resulting in hormonal problems. Drmani talked of the importance of Sustainable Life Cycle study of products and the Extended Production Responsibility required in the Industries for ensuring good Public Health.

2nd Day (05-06-2018, Tuesday)

Valedictory Session

The certificates for the training programme were awarded to all the participants by Dr D. Subrahmanyam, Sr Executive Director (International Cooperation) and Dr S K Gupta, Executive Director (HSMI).



Ms Nila Pandian delivered a vote of thanks.

Programme Schedule and Resource Persons

PROGRAMME SCHEDULE

Day/Date	Session Timings	Session Details	Faculty
4.06.2018 (Monday)	9:45 – 10:00 hrs	Inaugural address	Dr M Ravi Kanth, IAS (r), CMD, HUDCO
	10:00 –11.30hrs	Environmentally Sound Management of Toxics in the Waste Stream (Chemicals/ Bio-Medical Waste/ Electronic Waste, POPs & pesticides)	Ms. Preeti Mahesh, Toxics Link
	11:30 –11.45 hrs	TEA	
	11.45 –13.15hrs	Issue & Challenges in Sustainable Waste Management	Mr N B Mazumdar, Sulabh International
	13:15–14.00 hrs	LUNCH	
	14.15 –15.30 hrs	Natural Heritage and Plastic Pollution, Lecture at Multipurpose Hall, INTACH, 71, Lodhi Estate	Eric Solheim, UN Environment Executive Director and Under – Secretary- General of the United Nations
	15.30- 16.00hrs	TEA at INTACH	
16.00– 17:30 hrs	Awareness lecture on "Beat Plastic Pollution" at Sammelan Kaksh, CO	Dr. Suneel Pandey, TERI	
5.06.2018 (Tuesday)	07.00 hrs	Visit to Sunder Nursery Complex	
	10:15 –11.45hrs	Waste Management and SDG 12- Responsible Consumption and Production	Dr. Suneel Pandey, TERI
	11:45 –12.00 hrs	TEA	
	12:00 –13.30hrs	Plastic Pollution – Issue & Solutions: Case Studies for Plastic Reuse	Dr. Shyamala Mani, NIUA
	13:30- 14:00 hrs	Valedictory Session	Dr. D Subrahmanyam, Sr ED (International Cooperation) & Dr S K Gupta ED (T)
	13:30–14.15 hrs	LUNCH	

LIST OF RESOURCE PERSONS

S. No.	Name & Designation	Organisation	Contact
HUDCO/HSMI			
1.	Dr. M. Ravi Kanth, IAS (r),CMD	HUDCO Bhawan, IHC, LodhiRoad, New Delhi- 110 003	Tel: 011-24693022 24627113-15, 24627091 Email: cmdhudco@gmail.com
2.	Dr. D Subrahmanyam Sr. ED	HUDCO Bhawan, IHC, LodhiRoad, New Delhi- 110 003	Tel: 011-24369534 Mob: 9999918346 Email: edhudco@gmail.com
3.	Dr. S K Gupta, EDT, HSMI	HUDCO's HSMI, HUDCOHouse, Lodhi Road, NewDelhi- 110 003	Mob: 9868145672 Email: skgupta@hudco.org
4.	Mr. Surendra Singhai GM(P)/Sr. Fellow	HUDCO's HSMI, HUDCOHouse, Lodhi Road, NewDelhi- 110 003	Tel: 011-24308637 Mob : 9425302398 Email ssinghai_2000@yahoo.com
5.	Ms. Pooja Nandy DGM (P)	HUDCO's HSMI, HUDCOHouse, Lodhi Road, NewDelhi- 110 003	Tel: 011-24308613 Mob: 9810006306 Email: pooja.nandy@gmail.com
6.	Ms. Nila Pandian DGM(P)	HUDCO Bhawan, IHC, LodhiRoad, New Delhi- 110 003	Mob: 9891425439 Email: nilapandian@hudco.org
7.	Mr. Sachin Gautam TO(P)	HUDCO's HSMI, HUDCOHouse, Lodhi Road, NewDelhi- 110 003	Tel: 011-24308640 Mob 9406960861 Email:sachingautamce@gmail.com
Guest Faculty			
8.	Ms. Priti Mahesh, Chief Programme Cordinator	Toxic Link, H2 (Ground Floor), Jungpura Extension,New Delhi - 110014,	Email: priti@toxicslink.org
9.	Dr N B Mazumdar, Director General	Sulabh International Social Service Organisation SulabhGram, Mahavir Enclave,Palam-Dabri Road,New Delhi- 110045	Phone: +91.11.25031518 & 25031519, 25057748 Email: sulabhinfo@gmail.com
10.	Dr. Suneel Pandey,	The Energy and Resources Institute	Mob: 9811312261 Email: spandey@teri.res.in

	Director, Environment & Waste Management Division	(TERI) Darbari Seth Block, IHC Complex, Lodhi Road, New Delhi - 110 003	
11.	Dr. Shyamala Mani Professor (Retd.)	National Institute of Urban Affairs 1st and 2nd Floor, Core 4B, India Habitat Centre, Lodhi Road, New Delhi - 110003	
12.	Mr. Eric Solheim, UN Environment Executive Director and Under- Secretary- General of the United Nations		

List of participants

S.No.	Name	Designation
All India Institute of Local Self Government		
1	Ms. Akanksha Sinha	Senior Project Officer
2	Ms. Ankita	Project Officer
3	Ms. Nancy Saxena	Senior Project Officer
4	Ms. Nansi Gupta	Project Officer
CRRID, Chandigarh		
5	Shri Manoj Kumar Teotia	Asstt. Professor
Greater Noida Industrial Development Authority		
6	Sarvesh Rai	Scientist
Haryana Police Housing Corporation, Faridabad		
7	Naresh Kumar Goswami	Executive Engineer
HUDCO		
8	Smt. Anshumali Goel	Senior Manager (P)
9	Shri Amit Kumar	Trainee Officer (P)
10	Shri AnkitYaduvanshi	Trainee Officer (P)
11	Shri C.C. Joshi	Senior Manager (P)
12	Smt. Nirmal Batra	Senior Manager (P)
13	Shri Sai Krishna Singarapu	Trainee Officer (P)
14	Ms. Saneera Dev	Trainee Officer (P)
15	Shri Swapnil SubhashVidhate	Trainee Officer (P)

16	Shri Vijay Pal	Trainee Officer (P)
17	Ms. Vindhyavasini Pandey	Trainee Officer (P)
Jam Nagar Municipal Corporation		
18	Shri Ashok Nayee	SI
19	Shri Devendra Kumar N. Chauhan	SSI
Nagar Nigam Jhansi		
20	Dr. Rakesh Babu Gautam	Senior City Health Officer
21	Shri Agam Katiyar	AE
Rai Bareli Development Authority		
22	Shri Dhanesh Kumar	Junior Engineer
Rudrapur Nagar Nigam, Uttrakhand		
23	Shri Sanjay Sharma	Sanitary Inspector
School of Planning & Architecture		
24	Dr. Ruchita Gupta	Asstt. Professor
YEIDA		
25	Shri Arvind Kumar	Senior Manager
26	Shri Sudhir Kumar Bhardwaj	Manager (Project)

Programme Evaluation Report

Name of the Programme: Training Programme on “Sustainable Waste Management Practices for Urban Local Bodies”

Venue: HSMI Hostel

Date: 4th – 5th June, 2018

Feedback Evaluation

[Note: Please fill in the items in the questionnaire. Your objectivity will help us to improve the future courses]

PART A

1. What do you think about the structure and organization of the course to meet the objectives?

- | | |
|-------------------------------|------------------------|
| a. Very Well Structured (65%) | c. Somewhat Structured |
| b. Well Structured (35%) | d. Very Unstructured |

2. How useful will this training be to you immediately in your work?

- | | |
|----------------------|------------------------|
| a. Very Useful (75%) | c. of limited Use (5%) |
| b. Quite Useful(20%) | d. Not at all Useful |

3. How useful is this training likely to be for future jobs you may handle?

- | | |
|-----------------------|----------------------|
| a. Very Useful (58%) | c. of limited Use |
| b. Quite Useful (42%) | d. Not at all Useful |

4. How far have you been benefited from interaction with the fellow participants in the course?

- | | |
|------------------------|------------------------|
| a. Substantially (45%) | c. Fairly (30%) |
| b. Considerably (25%) | d. Not at all relevant |

5. Which parts of the course did you find most useful?

- i. All the sessions & lectures are very informative & useful for us and this will be useful to handle our jobs also.
- ii. Received a lot of information about the new research study in the field of sustainable waste management.
- iii. Whole workshop is very useful but Plastic Pollution & Recycling is most useful in all respect.

6. Which parts of the course did you find least useful?

- i. Study Visit

7. Suggestions for improvement in the future International Training Programme(s)

- i. To arrange such type of programme in local bodies at regular interval.
- ii. Training Schedule should be for 3-4 Days and there should be site visit to show some best practices in the field.
- iii. There should be more case study in the programme content/schedule.
- iv. This type of training programme should also be organized at district level, in school to create awareness.

8. Your overall impression of the course:

- a. Excellent **(45%)**
- b. Very Good **(45%)**
- c. Good **(10%)**
- d. Fair

PART B

Kindly indicate how effective the following sessions/topics were to you:

Day/ Date	Session Details	Faculty Name	Assessment			
			Excellent	V. Good	Good	Fair
04.06.2018 (Monday)	Environmentally Sound Management of Toxics in the Waste Stream (Chemicals/ Bio-Medical Waste/ Electronic Waste, POPs & pesticides)	Ms. Priti Mahesh	42%	53%	5%	
	Issue & Challenges in Sustainable Waste Management	Dr N B Mazumdar	63%	37%		
	Natural Heritage and Plastic Pollution	Mr. Eric Solheim	65%	24%	11%	
	awareness lecture on "Beat Plastic Pollution"	Dr. Suneel Pandey	56%	39%	5%	
05.06.2018 (Tuesday)	Visit to Humayun Tomb		100%			
	Waste management and SDG 12- Responsible Consumption and Production	Dr. Suneel Pandey	68%	32%		
	Plastic Pollution – Issue & Solutions	Dr. Shyamala Mani	75%	25%		