



# Guidelines for Management of Waste at Public Events









In Cooperation with:





WARRIORS









#### Imprint

#### Prepared by

#### Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Dag-Hammarskjöld Weg 1-5 65760 Eschborn Germany Tel. +49 61 96 79-0 Fax +49 61 96 79-11 15 E-Mail: info@giz.de www.giz.de

#### Supported by

#### Saahas NGO

#21, First Floor, MCHS Colony, 5th C Cross, 16th Main Rd, Stage 2, BTM Layout, Bengaluru, Karnataka 560076

#### Waste Warriors Society

136/2/2 Shivam Vihar, Rajpur Rd, Jakhan, Dehradun, Uttarakhand 248001

#### United Nations Environment Programme (UNEP) India

55, Lodhi Estate, New Delhi 110003 India Tel: +91-11-24628877 E-Mail: unepindia@un.org www.unep.org

#### Powered by

#### Alliance to End Plastic Waste

2 Science Park Drive #02-03/03 Ascent Building Singapore 118222 Singapore Tel. +65 8940 3985

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## Context

Aviral – Reducing Plastic Waste in the Ganga is a pilot project implemented in the two Ganga cities of Haridwar and Rishikesh in Uttarakhand, India with an objective to reduce plastic waste entering the environment. The project is funded by Alliance to End Plastic Waste and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) along with Saahas NGO and Waste Warriors Society. To address the issue of marine litter at regional scale in Asia by focusing the interventions in major polluting rivers such as Ganges and Mekong rivers, The United Nations Environment Programme (UNEP) is working on Japan funded Counter MEASURE project phase II. In the project, Haridwar is one of the project cities wherein different activities for promotion of action against marine plastic litter is ongoing.

Given that the objectives and efforts of both the projects are similar i.e., addressing the plastic waste management challenges in the city of Haridwar, in January 2021, a project partnership was entered for aligning the project approaches, leveraging synergies and increasing the impacts at ground level.

These guidelines for management of waste at public events have been developed by Saahas NGO and Waste Warriors Society with inputs from GIZ. UNEP Faith for Earth Initiative provided the detailed insights about waste management in faith-based scriptures and related good practices adopted by faith organisations across the country.



Waste segregation at Bhandara event (religious feast)









# Introduction

Public events are unique in terms of waste generation because large quantities of waste are generated in a confined space in a short period of time by a large number of visitors which include floating population as well. These unique characteristics apply to all types of public events such as religious gatherings, festival celebrations, cultural and music events, conventions, trade fairs among others. Typically, waste generated at public events is not well managed – particularly litter at the event premises and thereafter, mixed waste being collected for indiscriminate disposal is a common sight. This leads to not only environmental degradation but also violates Indian regulations relating to waste management. Under Solid Waste Management Rules, 2016, amended in 2019, and city specific bye-laws on solid waste management, any person organizing an event or gathering of more than hundred persons is required to ensure segregation of waste at source at such event and handing over of segregated waste to waste collector or agency as specified by the local body. Therefore, as per these regulations, the event organiser is responsible to manage waste generated at events.

With this background, these guidelines have been developed to assist event organisers in effectively managing waste generated at public events. These guidelines set out step-by-step actions that will reduce the amount of waste generated, facilitate proper management of waste at events and enable recovery of resources from waste.

# Objectives

- 1. To ensure source segregation of waste into at least three categories of waste at public events.
- 2. To handle and process large quantities of waste generated in public events i.e., in a confined space during a short time period by a large number of floating populations.
- 3. To manage waste sustainably and divert maximum possible waste from landfills and dumpsites, thereby ensuring resource recovery from waste.
- 4. To adopt best practices of reduction and reuse at public events.
- 5. To comply with Solid Waste Management Rules, 2016, amended in 2019, Plastic Waste Management Rules, 2016 amended in 2021 and city specific bye-laws on solid waste management.
- 6. To spread awareness on waste management and catalyse behavioural change.







# How to use these guidelines

The user of these guidelines should read the guidelines in the unique context of their event. The guidelines have to be applied and customised to the specific event in order to fulfil the objective of sustainable waste management. The guidelines are divided into color-coded different phases which relate to pre-event activities, actions that need to be taken at the event and ones that need to be carried out after the event. The following chart showcases the color selection for each of the phases these guidelines are divided into:

#### **Pre-event** activities

- 1. **Planning for the event:** This includes assessment and planning for infrastructure, manpower, estimating waste type and quantities and possible end destination for different waste streams generated at the event.
- Measures to reduce waste: One of the best ways to manage waste is to reduce its generation. This section of the guidelines provides various options to reduce waste at public events.
- 3. **Training and capacity building:** This section pertains to training of manpower hired for waste management at events including access to relevant training material.



## Activities at the event

- 1. Segregation of waste and flow of waste from segregation until disposal: This section highlights the flow of waste from disposal in dustbins in a segregated form to its aggregation at the event premises and thereafter, final channelisation to appropriate processing facilities.
- 2. Awareness and engagement: This section pertains to increasing awareness levels of members of public and other stakeholders that participate in the event regarding littering, using the right bin for different waste streams and waste management.

#### Post event activities

- 1. **Follow up on proper processing and disposal of waste:** This part of the guidelines stresses on proper management of waste that continues to be on the premises after the event and following up with the agencies that assisted the organiser in management of waste to ensure full accountability.
- 2. Waste audit and learnings for the events: This part of the guidelines pertain to collation of learnings from organising individual events and the format of waste audit.











## Assessment of existing infrastructure

- 1. Please check if infrastructure such as bins, High-density polyethylene (HDPE) bags, trolleys/ pushcarts/vehicles, display screens (if any) are already available.
- 2. Please check if there is space for aggregation of all the waste generated at the public event. This space is called a waste management unit/an aggregation point.
- 3. Assess transportation options:
  - Please check the number of trolleys/pushcarts/vehicles available, if any, and their capacities for transportation of segregated waste.
  - Please check if they will be able to transport waste (i) from bins installed at the event to the aggregation point and/or (ii) from aggregation point to end destination for different waste streams. Refer to the waste flow chart under "Flow of Waste" to understand the waste cycle from generation at the event to processing/end destinations within the city.

Note: Checking of existing infrastructure will help in understanding the remaining requirements.

4. If in-house infrastructure is not available, please find the services that the municipal body and/or authorised service provider can provide for events and the rates for such services.

# Types and quantities of waste generation on the basis of number of participants

- 1. Estimate number of participants attending the event per day. This can be done by creating a RSVP (respondez s'il vous plait) option or using information of past or similar events.
- 2. Identify the waste streams that can be generated depending on the type of event.

Note: For example, a religious event will have more bio-degradable waste such as flower waste while a trade exhibition will have more cardboard, plastic, or paper waste.







- 3. Typical categories of waste that are generated in a public event:
  - Biodegradable waste/Wet waste food waste, fruit and vegetables, flowers and similar items.
  - > Non-biodegradable waste/Dry waste paper, plastic, glass, metal, packaging and wood.
  - Domestic Hazardous waste used tissues, sanitary waste such as diapers and sanitary pads, gloves and masks.
  - > Mixed Waste Mix of dry/wet/domestic hazardous waste

Note: Identifying different types of waste will help in ensuring segregation, collection and processing of those waste streams.

Note: It is important to use the right bin and segregate waste at source. Once it is mixed, it cannot be recovered for resources.

4. Estimate quantities of different types of waste to be generated per day by the participants.

This can be computed by: Total Waste generated by participants = No. of participants x Estimated quantity in grams (g), of waste generated by one participant (i.e. [50g-700 g])

The quantity of waste per participant is primarily dependent on number of food/meals served at the event, disposables used at the event (such as disposable cutlery, packaged drinking water etc.) and the number of event days. The following thumb rule can be considered if no tips to reduce waste have been implemented:

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50 g
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#### Stallholder management

- Vendors having stalls at the public event i.e. stallholders should be approved by the organiser. This will help to identify the number and types of stallholders at the event and the type of waste generated by them. For example, food stalls will generate more biodegradable waste while stall with games will likely generate only non-biodegradable (dry waste).
- 2. It should be determined if the waste generated from setting up and dismantling/removing the stalls, if any, would be managed by the stallholder itself or the organiser.









- 3. Any waste resulting from set up and dismantling of stall should be disposed off properly in the waste aggregation area.
- 4. Location of the stalls should be pre-determined.

## Procurement of waste infrastructure and personnel

- 1. Calculate the number of bins required based on (i) capacity of bins, (ii) estimated quantities of waste generated at the event and (iii) frequency of clearance of bins.
- 2. Bins should be available for both at the event site and aggregation unit(s) as per indicative numbers set out in Annexure 1. There should be 20% additional bins/HDPE bags for unforeseen circumstances.
- 3. Identify number of smaller vehicles (pushcarts/tricycles) with separators required for emptying the bins and transporting waste to the aggregation point. If the waste is transported in bins, then an extra set of bins should be ready for replacement.
- 4. Personnel required for the following responsibilities:
  - Manning segregation at bins and replacement of full bins as per indicative numbers set out in Annexure 1.
  - Cleaning staff for picking litter and keeping the site clean.
  - > For every 10-cleaning staff, appoint 1 waste supervisor.
  - The cleaning staff can also clear the bins using collection vehicles and transport such > waste-to-waste aggregation area.
  - Appoint cleaning staff at aggregation point based on the quantity and type of waste using the thumb rule of 1 cleaning staff for every 500kgs of incoming segregated waste and 1 cleaning staff for every 250 kgs of incoming mixed waste per day. They will aggregate and further segregate the dry waste (if required).
  - > If the event is for the entire day i.e., 16-18 hours, please have another set of personnel for the second shift, where each shift is 8 hours.

Note: 1. If there is shortage of manpower, identify and determine where the maximum waste will be generated such as near food stalls and deploy cleaning staff in that area to ensure waste segregation.

2. Place volunteers for manning the bins to ensure source segregation and use of right bins and awareness / IEC (Information, Education, and Communication) activities.







## Identification of end destinations/processing facilities

1. Please identify and engage the nearby processing facilities for processing/channelising the different streams of waste collected at the event.

S.No.	Type of waste	Processing/end facilities	
1.	Wet waste/ Food waste	Composting unit/ biogas plant/ piggery/ gaushala/ city processing facility	
2.	Dry waste	Informal sector scrap dealer/ waste picker / materials recovery facility/ city processing facility	
3.	Domestic hazardous waste	Incinerators/city processing facility	
4.	Mixed waste (mix of dry/ wet/ domestic hazardous)	City processing facility/landfill	

Note: Sale of clean recyclable dry waste can also generate some revenue.



Domestic hazardous waste usually is not more than 10% of the total waste generated at the event.

- 2. Please identify who would be responsible for transporting aggregated waste from aggregation point to processing facilities including any agency authorized by the municipal authority. Such entity will be responsible for proper transportation of segregated waste to the processing/end destinations. Preference should be given to GPS (Global Positioning System) enabled vehicles to track the movement of waste.
- 3. For leftover and/or excess unspoilt food, the organiser/vendors/stallholders can tie up with organisations that provide food for poor or needy people. The food should be kept separately and should not come in contact with any waste. The organisations should collect the food everyday as per the discussed schedule to ensure that food remains fit for human consumption.
- 4. Flower offerings at religious and other events can be converted into products such as soaps, incense sticks, dried flowers, herbal colours, dyes, aromas and scents. e.g., flowers like 'Genda' are used to make incense sticks, while roses are converted to rose water. To do so the organisers should connect with such agencies/ organisations.
- 5. Upcycling certain waste streams such as textile waste to make cloth bags, decorations etc. or old plastic banners to be used as table or bed base mats, tent or roofing material.
- 6. The 'bottle/container deposit program', could be explored and implemented by event organisers for management of the used plastic bottles at public events. This is recommended for large events which expects participation from more than 3000 persons.









#### Process of a bottle/container deposit scheme



#### Steps:



When a consumer buys any beverage or product in plastic, glass bottles or Aluminium cans/containers during the event, the organisers motivate them to discard them through special machines installed on-site. These machines could be supervised and allow consumers to obtain either a direct financial benefit or indirect ones for their next purchase.



The collected bottles can then be sent to recycling partners.



The inbuilt financial incentive in this model, provides opportunity for plastic/glass/ Aluminium reuse and recycling.

#### Requirements under solid waste management bye-laws

- 1. For events having more than 100 people, the event organiser is required to seek written permission from the local authority, a minimum of three working days before event.
- 2. Waste needs to be kept segregated and handed over in a segregated manner to agency transporting the waste from the event premises.
- 3. Under the national and state specific bye-laws for solid waste management, failure to segregate waste and ensure cleanliness can result in a fine. For Example, In Uttarakhand based on the state bye-laws a penalty of up to Rs. 15,000 for the event organiser could be imposed.





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# Measures to Reduce Waste at the Event

- 1. Avoid use of all single use plastic and disposables such as tissue paper, plastic straws, paper cups, plastic plates, cutlery (to the extent possible).
- 2. Please use steel or other re-usable cutlery for meals/food and drinks and avoid use of disposals.
- 3. In case steel or reusable cutlery is not possible, please use compostable cutlery and/or alternatives made of bio-degradable material such as bagasse, bamboo or leaves.
- 4. Install water dispensers within reasonable distance at the event site for people to refill their water bottles or drink water. Encourage participants to carry their own bottles.
- 5. Use of locally produced sweets, biscuits or other food items in reusable containers is encouraged.
- 6. Encourage the use of reusable decorations at the event and avoid use of decorations such as balloons, plastic decorations, plastic flowers, etc.
- 7. Avoid plastic packaging of religious offerings.
- 8. Use cloth banners instead of one-time use plastic/vinyl flex banners.
- 9. Provide e-tickets/ticket code instead of paper tickets to participants.
- 10. Avoid use of paper flyers, pamphlets, etc., for advertisements, invites etc. and encourage use of reusable or digital material for advertisements, invites and other information relating to the event.
- 11. Prohibit smoking in the premises or have designated smoking areas where bins are kept for cigarette butts.
- 12. Please assess other ways to reduce waste specific to the event.

Note: If waste generation is reduced, there is less waste to manage at the event.





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# Training and Capacity Building

- 1. Please conduct training sessions before the event for vendors, cleaning staff, supervisors, volunteers and other stakeholders about the waste management plan.
- 2. The training should cover the following topics:
  - > Different waste streams and the right bins for each waste stream
  - > Infrastructure procured and to be used for waste handling and management
  - Flow of waste from the bins to the waste aggregation point and thereafter to the respective end destinations
  - > Details of the end destination for different waste streams
  - > Frequency of clearance of the bins
  - > Details of supervisors, area allocation and overview of specific responsibilities with regard to waste management
  - > Soft skills to guide participants to not litter and use the right bin for waste
  - > Sustainable alternatives to single use plastics and disposables
  - > Personal protective equipment and health and safety protocols while handling waste
  - > Data collection and monitoring of waste management activities

Sample training materials are available here.







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 Proper segregation of waste at source into the below categories is required under the Solid Waste Management Rules, 2016 and should be mandatory at the event. There should be separate dustbins with lids or covers for each waste type including:



Biodegradable waste/Wet waste/Food waste - Green bin.



Non-biodegradable waste/Dry waste - Blue bin/HDPE bags.



Domestic Hazardous waste - Red bin.

Note: Please place images/labels showing examples of types of waste above the bins for better understanding. These images/image boards should be reusable.

For example, for wet waste bins, have images of cooked meals, fruits, etc. for easier comprehension. Please refer to the IEC collaterals under "Awareness and Engagement Activity" below for better understanding.



Waste segregation at an event











The diagram below explains the flow of waste generated at events deposited at the dustbins (in a segregated manner) to the aggregation centre at the event premises and thereafter, to different processing destinations within the city for resource recovery. Unspoilt food should be handled separately and should be directly sent to the appropriate organisations without it having any contact with waste.









## Clearance of bins and transportation of waste

- Map the key activity areas such as food stalls, entertainment shows, toilets, water dispensers, entry and exit points etc., where more waste will be generated. Place additional dustbins at and near such areas such that people need to walk short distances to dispose waste. Refer to Annexure 1 for bin and manpower details.
- 2. The bins should be manned by the cleaning staff and/or volunteers to ensure proper segregation of waste. The cleaning staff and supervisors should be designated to different areas of the event location and the manner of contacting the staff and supervisor should be clearly communicated. The cleaning staff/volunteers to man the bins should be stationed before the event starts.
- 3. The clean-up staff or supervisors should enable timely and frequent clearance of waste to avoid bins to overflow. Any unexpected clearance of bins should be informed by the staff and/or volunteers to the waste supervisor of the designated area.
- 4. Vehicles such as pushcarts or tricycles are suggested for collecting waste from bins and transporting to aggregation points, depending on the distance.
- 5. Loaders/helpers to ensure there is no spillage on transporting, loading, and unloading the waste.
- 6. All staff must use personal protective equipment such as gloves, masks, shoes, and apron/ overalls/coat while handling waste.

### Waste aggregation area and dispatch of waste to end destinations/ processing facilities

- Aggregation point should be big enough to aggregate waste collected from the bins in a segregated manner. If the waste estimated to be generated is [500 kgs per day where wet waste will be cleared every day and dry waste will not be stored for more than two days in the aggregation point, 180-220 square feet] should be demarcated as a waste aggregation area.
- 2. The waste aggregation area should be ideally within or next to the event site to avoid unnecessary and excess movement of waste.
- 3. The vehicles will unload the waste at the aggregation point in a segregated manner. Remove any mixed waste in a different bin.
- 4. It should have a weighing machine to weigh the different types of waste. Staff should be responsible to record quantities of different types of waste collected every day.







- 5. Aggregate the waste in a segregated manner ready for collection and processing.
- 6. At least one collection per day should be scheduled for wet waste and domestic hazardous waste, typically at the end of the day. Clean dry waste can be aggregated for 2-3 days and thereafter, transported for further processing, depending on the number of days the event will last.
- 7. Waste supervisors to oversee transportation of segregated waste to processing/end destinations.
- 8. The event organiser is responsible to procure an undertaking from processing/end destinations that waste has been received for processing and/or should provide any other adequate proof of receipt of segregated waste at the processing/end destinations.
- 9. Waste audit should be conducted during and end of the event to assess the total quantity of waste generated, segregation levels and amount of waste processed as per the format provide under the Post event activities chapter. Feedback on the waste management systems should be taken from vendors, stallholders, cleaning staff, supervisors, volunteers and if possible, from participants (during the event). The findings from the audit can assist in planning, processes, and systems for waste management for future public events.

# Disaster Management

- 1. The event should have alternative route plan including exit routes for transporting of waste in case of disasters or major accidents. The alternative route should not be the same as that used by participants.
- 2. Event organisers should have telephone numbers and other contact details of emergency response agencies at the city and district levels.









- 1. Put signages, labels, display screens and other informative material before the event starts.
- 2. Play audio messages on loop in key activity areas.
- 3. Using relevant social media channels and event websites for invitation to the event and promoting that the event is zero waste and its guidelines, before and during the event. Zero waste event shall mean less than 10% of total waste generated at the event being disposed at the dumpsite/landfill.
- 4. Participants should be encouraged to bring their own cloth or other bag, water bottle and cutlery and these messages should be included in the invites, tickets, and other promotions of the event.
- 5. Provide volunteers with signage to engage with participants and participate in activities such as street plays and flash mob at the event.
- 6. All signage and activities should be in the local language.
- 7. Send waste management guidelines and list of banned items digitally to different stakeholders prior to the event or along with issuing tickets.
- 8. Awareness on topics set forth below:
  - > Source segregation and use of right bins
  - > Anti-littering
  - > Recovery resources due to source segregation
  - > Sustainable alternatives to single use plastic and/or disposables

Sample collaterals for awareness and engagement relating to waste management are available here.



Note: If the organiser has multiple events in a year, create a group/association/WhatsApp group where interested volunteers can be registered. This will help in informing them about the upcoming event and for them to register for an event.

Note: Encourage them by providing certificates of appreciation.











## Event organiser

1. Evaluate similar public events and identify the infrastructure required for waste management at the event.



- 2. Inform nodal officer and/or the department overseeing waste within the municipal body and understand how it and/or authorised service provider can help with the waste management.
- 3. Prepare a waste management plan according to these guidelines and as per applicable law.
- 4. Identify different stakeholders who will be a part of the event such as stallholders, vendors, transporters, cleaning staff and supervisors, end destinations/processing facilities etc.
- 5. Prepare a schedule of trainings for stallholders, vendors, cleaning staff, supervisors, volunteers, and other stakeholders and conduct these trainings in a timely manner before the public event.
- 6. Prepare roles and responsibilities of different members of the organising team, stallholders, vendors, cleaning staff and supervisors and any other stakeholders.
- 7. Evaluate measures to reduce waste generation and sustainable alternatives to single use plastic and disposables.
- 8. Call for volunteers for helping in IEC activities, supervising/manning the bins, etc.
- 9. Procure infrastructure required to execute the waste management plan.
- 10. Deploy required manpower including cleaning staff and supervisors.
- 11. Ensure that people handling waste are provided with personal protective equipment such as gloves, masks, shoes, and apron/overalls/coat and that they are used properly by the staff.
- 12. Prepare and implement a time schedule for collection of waste from the bins to the aggregation point and ensure that there is a monitoring system for waste management activities.
- 13. Tie up and send the waste to appropriate processing facilities and ensure that no waste generated at the event is dumped, burnt, or thrown in open spaces, streets, or water bodies.
- 14. Create awareness among the public on waste segregation, anti-littering, and resource recovery.









- 15. Each type of waste collected should be weighed every day at the aggregation point(s) for waste data collection.
- 16. Conduct an audit after the event to identify gaps, which will assist in planning processes and systems for waste management for future public events.
- 17. Gather feedback from stallholders, vendors, participants, service providers, volunteers, etc. on the waste management plan.
- 18. Coordinate with municipal body for penalties for non-compliance of waste management guidelines by any stakeholder.

## > Vendors and stallholders

- 1. Provide details relating to waste required by the event organiser.
- 2. Attend all the trainings scheduled by the event organiser.
- 3. Manage the waste generated from setting up and dismantling the stall within the timelines given by the event organiser and/or pay relevant fees for management of waste resulting from the setting up and dismantling the stall.
- 4. Keep separate dustbins for different types of waste generated within and around the stall i.e., wet waste and dry waste. No waste generated and collected at the stall should be mixed.
- 5. Ensure segregation of waste by the people visiting the stall and there is no littering around the stall.
- 6. Avoid the use and distribution of single use items or disposables to ensure a prevention of waste production. Use of sustainable alternatives is encouraged.
- 7. Follow the waste management guidelines provided by the event organiser.
- 8. Please contact the area supervisor if the dustbins in and around the stall become full to avoid overflowing of waste.



## Cleaning staff

- 1. Man/supervise the bins with the help of volunteers to ensure segregation of waste by participants.
- 2. Any waste thrown or littered by people is collected and deposited in the appropriate bin.
- 3. Any waste spilled during collection and transportation of waste should be deposited in appropriate bins.
- 4. Always wear personal gloves, masks, shoes, and apron/overalls/coat when handling waste.
- 5. Ensure clearance of bin when they become full or overflow.
- 6. Remove mixed waste in a separate bin/skip/area at the aggregation point.
- 7. Store wet, dry, domestic hazardous waste and mixed waste separately for transportation to relevant end destinations/processing facilities.
- 8. Ensure that there is no spillage of waste during loading and unloading of waste.

## Supervisors

- 1. Check bins for segregation of waste.
- 1. Take corrective steps if any mixed waste is found in the bins.
- 2. Aid the cleaning staff with any problems they face.
- 3. Monitor clearance of bins in a timely manner to ensure there is no overflow of bins and monitor transportation of waste from the bins to the waste aggregation area.
- 4. Coordinate between cleaning staff, event organiser and other stakeholders.
- 5. Engage with the participants to increase awareness about source segregation and use of bins.
- 6. Oversee proper unloading of the collected waste at the aggregation point.
- 7. Supervise further segregation of waste and removal of mixed waste by cleaning staff.
- 8. Oversee weighing of different types of waste and record waste data every day.
- 9. Coordinate on timely collection of waste from the aggregation point by end destinations/ processing facilities.





















# Tentative Time Schedule of Activities

Time	Activities for the Event Organiser	
6 months before to the event	<ul> <li>b to the Prepare a waste management plan. Alternatively, hire a waste management agency for preparing and implementing a waste management plan.</li> <li>&gt; Focus on reducing waste following 3R-reduce, reuse and recycles</li> <li>&gt; Map the event premises for areas for stalls, shows, events, aggregation points, placement of dustbins, etc.</li> </ul>	
6 to 5 months before the event	<ul> <li>Assessment of number of participants and type and quantities of waste.</li> <li>Call for stallholders and vendors for the event and assess the type and quantities of waste generated by them.</li> <li>Prepare guidelines and processes for waste management from source to end. Mention penalties for non-adherence.</li> </ul>	
5 to 4 months before the event	<ul> <li>&gt; Identify and tie up for sourcing all the infrastructure required.</li> <li>&gt; Identify and hire the personnel required.</li> <li>&gt; Identify and tie up with end destinations as per the types and quantities of waste generated.</li> </ul>	
4 to 3 months before the event	<ul> <li>&gt; Identify banned and permitted materials.</li> <li>&gt; Hold introduction meeting with the stakeholders and inform about:         <ul> <li>Banned and allowed materials.</li> <li>Roles and responsibilities.</li> <li>Timelines for setting up the infrastructure and stalls.</li> <li>Discuss on types of IEC activities.</li> <li>Incentives for compliance and penalties for non-compliance.</li> </ul> </li> </ul>	
3 to 1 month before the event	<ul> <li>Publicise the event as a zero-waste event through social media and the event website.</li> <li>Publish the Do's and Don'ts of participants on social media and event website. Mention penalties for non-adherence.</li> <li>Call for volunteers and communicate roles and responsibilities.</li> <li>Hold a practical training session(s) for all the stakeholders to follow up on the preliminary meeting.</li> <li>Identify and plan IEC activities for during the event.</li> </ul>	









Time	Activities for the Event Organiser		
2 weeks to 1 day prior to the event	<ul> <li>Set up infrastructure.</li> <li>Finalise staff and volunteers and their shifts.</li> <li>Stallholders to complete setting up the stalls.</li> <li>Waste generated from setting up to be removed and sent to processing facilities before the event starts.</li> </ul>		
Event days	<ul> <li>&gt; Implement the pre-decided IEC activities.</li> <li>&gt; Stakeholders to carry out their roles and responsibilities.</li> <li>&gt; Unspoilt leftover to be sent or collected by organisation(s) for feeding the poor.</li> <li>&gt; Waste to be collected and sent to the appropriate processing facilities.</li> </ul>		
Within 2 days after the event	<ul> <li>Stallholders to dismantle stalls. Any other setup should be dismantled.</li> <li>Waste generated from dismantling to be removed and sent to processing facilities.</li> <li>Any remaining waste should be sent to appropriate processing facilities.</li> </ul>		
1 week after the event	<ul> <li>&gt; Gather feedback from stallholders, vendors, volunteers, attendees and staff. Identify gaps.</li> <li>&gt; Collate the waste data recorded every day.</li> <li>&gt; Evaluate results.</li> <li>&gt; Determine what activities worked and what did not work.</li> <li>&gt; Prepare recommendations for the next event.</li> <li>&gt; Promote the environmental impact.</li> </ul>		

The above schedule can be changed depending on if the event is smaller or if the frequency is higher.

But planning the event from before is important.











# Do's and Don'ts

## > Vendors/Stallholders

Do's	Don'ts
Waste from setting up and dismantling stall to be kept separate.	Throw or litter waste in and around the stall.
Segregate waste at source, provide separate bins for different types of waste.	Use or distribute disposables and/or single use plastics.
Ensure no mixing of waste.	Mixing of waste in the bins.
Use reusable and biodegradable products (Banana leaves, areca nut leaf plates, steel spoons and forks).	Violate the guidelines provided by the event organiser.
Ensure that the customers deposit waste in appropriate bins.	Distributing single use paper pamphlets or advertising materials.
Be aware of the fines and penalties for non-compliance of ban.	Litter/throw waste outside bins.
Use display screens/mascots/reusable posters for ads.	
Have complete knowledge of guidelines for the event.	
Attend and pay attention to all training sessions before the event.	

## Participants

Do's	Don'ts
Bring your own cloth or jute bag, water bottle and cutlery.	Mixing of waste in the bins.
Bring hand towels instead of using tissue papers.	Bringing banned items.
<ul> <li>All waste must be segregated or separated and disposed into:</li> <li>a. Food or organic waste - Green bin.</li> <li>b. Dry or non-biodegradable waste - Blue bin.</li> <li>c. Masks, gloves, tissues, or sanitary waste - Red bin.</li> </ul>	Be rude to cleaning staff, volunteers and organising team on waste segregation.
Use water dispensers instead of water bottles.	Litter/throw waste outside bins.
Be aware of the fines on non-compliance.	
Read the guidelines for the event.	





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## **Volunteers**

Do's	Don'ts
Report to all the meetings on time.	Bad behaviour with cleaning staff, supervisors and participants.
Perform responsibilities.	Ignore directions and responsibilities at the event.
Guide people on segregation of waste.	Overcommit or take responsibility you cannot perform.
Follow the directions of the organising team.	Directly engage in matters you can't handle. Call the organising team instead.
Help cleaning staff to ensure segregation of waste by participants.	Be absent on the day of event without prior notice.
Coordinate with the cleaning staff, supervisors and organising team, if necessary.	Give information about an issue you are not aware of.
Highlight the importance of waste management at events and otherwise.	
Spread awareness on disposables/single use plastic and use of alternatives.	
Attend and pay attention to all training sessions before the event.	

## Cleaning staff

Do's	Don'ts
Always wear gloves, masks and tissues while handling with waste.	Handle waste without wearing gloves and masks.
Attend and pay attention to all training sessions before the event.	Stray or loiter unnecessarily.
Always report on time.	Bad behaviour with participants, volunteers, or anyone else.
Carry out your assigned responsibilities.	Mix waste during emptying of bins or transportation.
Wash your hands frequently.	Let bins overflow.
Ensure segregation of waste in the bins.	







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# Faith-Based Organisations and Solid Waste Management

Through the guidance of sacred texts on cleanliness and waste, many Faith-Based Organisations (FBOs) contribute towards waste management to save the planet and its inhabitants created by God. One of the most used methods (to manage waste) by FBOs are various cleanliness drives carried out in recent years. Additionally, there are a few more methods adopted by the FBO's to manage solid waste, which are mentioned below. The list of FBOs or their work is not limited to the few examples\* mentioned below. However, it will give a glimpse of current good Solid Waste Management (SWM) practices adopted by the FBOs.

Name of the Organization	Collect (Source)	Manage (Recycling)	Channelize (Alternatives)
Art Of Living	Installed 18 waste segregation and management plants at the place of worships and government offices [1].	Pyrolysis Plant, reduces 200kg of plastic into fuel, gas and carbon (black carbon used to asphalt roads) [2].	Home gardening and natural farming [3].
Bishnoi community	Plastic-free earth campaign - religious places, tourist places, lakes, ponds & riverbanks.		Using dead wood/ branches, using cow- dung cakes as fuel for cooking.
Caritas India and Ghana	'Recycle for Life Cycle' campaign (Tamil Nadu) - waste segregation, plastic waste usage, bio-compost and nutrition garden [4]. Stakeholders' meeting on effective e-waste management (plastic and electronic waste) [5].		
Church of South India (CSI)	The Green SchoolDistributed 1000Programmebiogas plants		Lenten 2019, pastoral letter - avoid disposable plastic.
CR Park Kali Mandir Society	Organic Waste compost machine [6].		
CYNESA	Multi-Faith Women Leaders' Advocacy Training on Proper Waste Management (7 Rs) [7].		
Dharmyog Foundation	Waste management campaigns with community and youth.		
EcoSikh	Awareness on 3 Rs (reduce, reuse and recycle) and organic culture [8].		
Ek Onkar Charitable Trust Seechewal	Natural farming and community waste management [9].		
Fr. Agnel School (UP)	Rated as green school.		

FBO's Current Best Practices on Waste Management (specific to plastic, highlighted in yellow)









Name of the Organization	Collect (Source)	Manage (Recycling)	Channelize (Alternatives)
Gayatri Pariwar, Dev Sanskriti University	River, pilgrimage, rural and urban Cleaning Projects - Nirmal Ganga Jan Abhiyaan, clean Haridwarproject (prohibition on use of polythene and intoxication) [10].	Compost plants.	Zero carbon footprint campus.
Gobind Sadan		Compost plant.	
International Buddhist Confederation	Climate statements on unsus etc.).	stainable consumption (U	NFCCC Paris, COP21,
	Zero waste community (Syml Encouraged youth for Tide T	piotic Recycling model for urner Plastic Challenge.	waste management);
ISKCON (Govardhan Eco-Village)		Produced clean energy from plastic waste (~ 18,720 L fuel from 100-150 kgs plastic).	
LIFE up & forward + GMWDA	Campaigns - 'week of action', 'breaking the fast' events, etc. (handouts of 'green passages' from holy books) [11].		
Live to Inspire and Sajan Shah Foundation			Plantable Pencil (nontoxic and biodegradable) Drive - ~40,000 pencils planted.
Nishan e sikhi charitable trust khadur sahib		Community organic farming and composting.	Distributed eco-bags amongst students/ staff.
Parmarth Niketan Ashram	Ganga Action Parivar (GAP) - clean Ganga River (ensure proper trash disposal and recycling). Mass awareness - reduce trash reaching the river basin [12]. Waste to Weat technology - off wet and do Output, neutron used as fertili		Waste to Wealth technology - disposes off wet and dry waste. Output, neutral ash - used as fertiliser [13].
Philippine-Misereor Partnership Incorporated	Awareness on 'Recycling minerals from old gadgets, an alternative to mining' [14].		
Prakriti Vyavasaya Samakhya		Awareness on sustainable agriculture – farm and solid waste	









Name of the Organization	Collect (Source)	Manage (Recycling)	Channelize (Alternatives)
Shrimad Rajchandra		Bio-compost + organic kitchen garden.	
MISSION	Youth centric env. Program –	gement	
Temple of Understanding Faith- Baha'i Community		Community projects on waste segregation and recycling.	
Unity College	Waste Management program		
Veerayatan	Resident's segregate and dispose off the wet and dry garbage separately.	Manure through compost pits.	Paperless campus, curbing plastic use - distribution of reusable bags.
Universal Versatile Society	Green school and campus – awareness on bio- degradable waste and banned single-use plastic.		Workshops on eco- friendly Ganpati idols.



Waste segregation after an event









The below waste audit format will help you quantify the waste generated in an event along with its proper management. This audit format can be used both during and after the event. Please refer to the Guidelines for Management of Waste at Public Events ("Guidelines") for further details and necessary requirements.

## Details of the event

Name of the event*	
Location of the event*	
Area of the event premises (sq. mt./ sq. ft.), if possible	
City*	
Name of the event organiser*	
Dates of the public event *	
Were plastic liners/single use plastic/disposables used at the event?	

## Details of the waste generators

Average number of participants per day*		
Number of food vendors/stallholders*		
List of items used by vendors/ stallholders to serve food		
Number and type of other vendors/	Туре	Number
stallholders		









WASTE

## > Details of infrastructure

Please fill in the details of the infrastructure and manpower deployed for the event. Please customise this based on the event. Analysing the quantitative aspects of infrastructure against improper waste management is important to ascertain the factors that need improvement.

	Dry waste
Number of bins *	Wet waste
	Domestic hazardous waste
Did all the bins have proper signage and labels? (Y/N) *	
Were other signage put up for waste management awareness in the event?*	
Area of aggregation point (sq. mt./sq. ft.) *	
Number of cleaning staff manning	Shift 1 (8 hours)
bins (as applicable) *	Shift 2 (8 hours)
Number of cleaning staff at	Shift 1 (8 hours)
aggregation point (as applicable)*	Shift 2 (8 hours)
Was the staff wearing PPE (Personal Protective Equipment) regularly? (Y/N)*	
List down shortage or excess of infrastructure or manpower, if any.*	

## **Trainings**

S.No.	Particulars	Comments
	Were training sessions conducted pre-event for stakeholders? If yes, how many trainings and for whom? *	

0

Useful Tool: Use our Waste audit after your event.









### Waste data

It is important that the waste is weighed as set forth in the Guidelines and in the following manner. Please add waste data of any other specific type of waste likely to generate due to the type of event.

Total waste generated in a [Note: Insert no. of days] day event.			
Type of waste (Waste weighed at the aggregation point OR Waste weighed by the end facilities)	Quantity (in kg)	Name of the end destination	Documentation evidencing receipt of waste from end destinations (Y/N)
Unspoilt food			
Wet waste			
Dry waste			
Domestic hazardous waste			
Mixed waste			
Use of plastic liners/single use plastic/disposables by participants or vendor/ stallholder.			
[Please insert any specific type of waste generated in large quantities, for example, wood from the stalls]			
Total			

## > To be filled in by the organiser

Write any findings or insights from planning and implementation of the event, interaction with the concerned staff, feedback from vendors/stallholders and participants and from the visual inspection of the event.

1.

2.









# Annexure 1

# Normative Standards for Bins and Manpower

## Location and Number of bins

- 1. Bins should **mandatorily** be placed in key activity areas such as food stalls, entertainment shows, toilets, water dispensers, entry and exit points of the events.
- 2. It is preferable that bins should be placed within 10-15m or 35-50 ft from points of generation (such as stalls).
- 3. The number of bins can be calculated on the following basis:

#### 3.1. Type of stalls:

- > There can be one twin bin set for every three *non-food* stalls keeping in mind the distance of bins from stalls and the footfall at the stalls.
- On an average, there can be one twin bin set for every two *food* stalls with an assumption that there is consistent and almost equal footfall at these stalls. This is subject to change based on factors like the nature of food, packaging being used and disposables being used, footfall etc.

#### 3.2. Number of participants and meals:

S no.	Number of meals	Minimum number of twin bin sets (for every 1000 persons)*
1	0	2
2	1-2	3
3	3	3

\*Assuming bins are cleared and replaced as soon as they are filled.

The manpower and infrastructure details in this annexure is supposed to be indicative and should not be considered as definitive and final. Given that waste generation is directly linked to type of public events, products sold/distributed at the events, number and type of disposables used, type of stalls etc. the bin and manpower requirements at the event could significantly differ. Users of the guidelines should use this annexure as a guide bearing in mind other factors as set out here.









#### 3.3. Area of public event:

S no.	Area (in sq ft)	Minimum number of twin bin sets
1	3000	2
2	3000-6000	3
3	6000-9000	4
Add 1 more twin bin point for every 3000 sq ft		

Note: With regard to points 3.1, 3.2 and 3.3, please adopt the approach which provides the maximum number of twin bin sets to ensure sufficient number of bins.

4. This could result in less confusion amongst participants between the different bins for wet and dry waste. For events with catered food, an alternative to bins are deposit centres where participants can deposit their waste (as shown below). At these centres, dedicated trained staff can segregate waste into different bins.

#### **Manpower required**

 $\square$ 

 Typically, all twin bin sets should be manned by staff/volunteers to ensure segregation of waste. However, in case of shortfall of manpower, the organiser should ensure that bins at or near food stalls are mandatorily manned by staff/volunteers.

- 2. For every 5 twin bin sets, 2 staffs will be required for bin replacement/waste drop off to aggregation point.
- 3. The following number of staff will be required as per incoming waste received at Aggregation Point.

S no.	Quantity/day (in kg)	Segregated waste	Mixed waste
1	500	2	2
		1 staff for every 500 kgs of additional waste	1 staff for every 250 kgs of additional waste



# Annexure 2 Faith, Scriptures and Waste Management

Nature knows no waste, it has endowed the earth with bountiful gifts that decompose and regenerate itself. However, the intervention by human beings continues to generate waste which when managed well can also become a resource. Likewise, if waste in and around the Ganges is not managed thoroughly, it can significantly affect the surroundings and has a negative impact not only on Earth but also on health with respect to body, mind and spirit, as rightly understood in many faiths and religions. Thus, all religious texts contain messages of environmental care, with notions of sustainability embedded in them [15].

Scriptural references from various religion and faith suggest a cultural/traditional lifestyle to emphasise the importance of adopting a more responsible lifestyle with minimal waste generated. Thereby managing waste at an individual and community level becomes imperative to act upon.

This section has been developed by the UNEP Faith for Earth Initiative and the Counter Measure project.











# Baha'i:

"The pure eye comprehendeth the sight and the meeting of God; the pure nostril inhaleth the perfumes of the rose-garden of bounty; the pure heart becometh the mirror of the beauty of truth. Then it is evident that the divine teachings are the heavenly grace and the showers of the mercy of God, which purify the hearts of men." (Abdu'l-Baha quotes on Quotations Book).



Figure 1: Baha'i Temple Source: Image by Matthew TenBruggencate/unsplash.com

The Baha'i faith reciprocates the principles of cleanliness and sanctity, a necessity in all conditions for a free and pure soul. The significance of the Baha'i Faith in both household waste management and organic food purchases reciprocates the principle of "the oneness of the entire human race" [16]

"The innumerable created things that are found in the world of existence - be they man, animal, plant, or mineral - must each be composed of elements. There is no doubt that the completeness seen in each and everything arises, by divine creation, from the component elements, their appropriate combination, their proportionate measure, the manner of their composition, and the influence of other created things. For all beings are linked together like a chain; and mutual aid, assistance, and interaction are among their intrinsic properties and are the cause of their formation, development and growth." ('Abdu'l-Bahá, Some Answered Questions, Chpt. 46, p. 205).

The Baha'i faith guides about the oneness of elements [3]. Everything is interconnected, and we must work together in unity to bring solutions for the polluted Earth which is nothing but a part of us or rather us a part of the Earth [17]. Like oneness, there is a principle of equality.

"Take from this world only to the measure of your needs and forego that which exceedeth them. Observe equity in all your judgements, and transgress not the bounds of justice, nor be of them that stray from its path." (Bahá'u'lláh, Súriy-i-Mulúk >19, in The Summons of the Lord of Hosts, p. 193. Haifa, Bahá'í World Centre, 2002).

*"Bestow upon them according to their needs"* (Bahá'u'lláh [to the Sultán Abdu'l-'Aziz], Gleanings from the Writings of Bahá'u'lláh, CXIV, pp. 235-236)

Observing the principles of equality, oneness, and cleanliness, we receive the message of doing justice to the Earth by not overusing its resources and managing them in such a way that it will not pollute the Earth.









# D Bishnoi:

The word "Bishnoi" is thought to have originated from the two words, Bish (20) and noi (9), meaning 29 or followers of the 29 rules. The Bishnoi community follows the teachings of 'Guru Jambheshwar' who set 29 rules. There are several rules within these to imply the importance of cleanliness, both from within and outside environments. One of the rules states; "cook your food by yourself, obey the ideal rules of life: modesty, patience or satisfactions, cleanliness" [18]. Through this rule of Guru Jambheshwar, the Bishnoi community is guided to observe cleanliness by managing their resources to minimise waste around them.

## Buddhism:

Similar to 'Oneness' principles in Baha'i, Buddhism teaches us the principle of 'Inter-relatedness of everything' or 'The chain of causation/karma'. Lord Buddha always made his followers understand that the unethical actions of men, imbalances environmental systems. There is a relationship between man and environment, and there is also the principle of Karma [19].



Figure 3: Crucifix and statue Source: Image by Lazphoto/ Flickr.com

Through the principle of karma, Buddhism teaches us that harming Earth (by polluting it through waste), we create a world of suffering for ourselves. We are all interconnected, our selfish acts would not only bring suffering to us (through the law of karma), but it will also cause suffering for future generations [19].

Buddha taught people to live simply and appreciate the natural cycles of life. Adopting this fundamental principle of simplicity in life could lead to waste minimisation rather than needless natural resource exploitation and overconsumption. Lord Buddha also taught us about waste conservation, which can be seen in the commandment where he prohibited his followers from disposing of waste into water bodies [19], [20].

From the Buddhist perspective, the current problem we face is our greed, desire, and attitude towards anything other than our own self [20]. By following lord Buddha's principles, we could adopt a lifestyle which has minimum impact on Earth and waste generation.









## Christianity:

"And I brought you into a plentiful land to enjoy its fruits and its good things. But when you came in, you defiled my land and made my heritage an abomination." (Jeremiah 2:7)

In Christianity, there is a belief that by destroying our resources, our planet, we are destroying what God created for us, something precious to God [21]. The Old Testament have many references related to pollution and waste.



Figure 2: Buddhist monk meditating Source: Image by 4144132/Pixabay.com

"But first I will doubly repay their iniquity and their sin, because they have polluted my land with the carcasses of their detestable idols and have filled my inheritance with their abominations." (Jeremiah 16:18)

Along with the Old Testament, the New Testament also have similar references where God speaks of purity.

"And everyone who has this hope fixed on Him purifies himself, just as He is pure." (1 John 3:3)

And when they had eaten their fill, he told his disciples, *"Gather up the leftover fragments, that nothing may be lost."* (John 6:12)

Mark's Gospel can be used to understand purity in Christian faith, it contains attestations of Jesus' purity:

"Satan, enemy of God and Uncleanness itself, attacks Jesus and tries to make him unclean; he fails. 'Angels came and ministered to him" (1:13)

Thus, in Christianity, destroying the Earth by any human act, in our case – polluting and harming it with waste, is considered a sin and it is our responsibility and duty to protect what was given to us by God [22].









# Hinduism:

"Na cocchișțaṃ kuryāta" - "and leave no residue"

(Āpastamba dharmasūtra 1. 3. 37)

"Aśaktau bhūmau nikhaneta" - "If he cannot [eat all that he has taken in his dish], he shall bury [the remainder]."

(Āpastamba dharmasūtra 1. 3. 38)



Figure 4: Hindu gods on temple wall Source: Image by Dominik Vanyi/Unsplash.com

The various sacred texts of Hinduism are replete with verses on eco-conservation. Some of the references from Rig veda could be connected with the concept of 3Rs (reduce, reuse, recycle). The two passages from Āpastamba dharmasūtra (mentioned above), direct humans not to waste food. Leftovers should be given to cattle and if this is not realisable, it should be returned to the soil to turn into compost.

The verses of Mundaka Upanishad also sprouts the seed of 'Zero Waste', reusing/recycling [23].

"Yathorṇanābhiḥ srjate grhṇate ca yathā prthivayāmoṣadhayaḥ saṃbhavati /yathā sataḥ puruṣāt keśalomāni tathākṣarāt sambhavatīha viśvam" (Mundokopaniṣad 1.1.8)

**Translation:** "The way a spider weaves its net, then winds it up in itself, the way vegetation gets produced on the Earth, in the same way, the universe is created from the alphabet Brahma and gets absorbed in it, nothing remains; similarly, objects get merged again into five elements."

Thus, the seeds of 'zero waste' are sown in creation itself. They originate from nature and then merge in it [23]. The traditional Indian lifestyle depicted from various Vedas and scriptures has always revolved around objects which can be reused without polluting the environment like sugarcane, jute, flax, cane grass mats, etc. [24].

Prastarena barhișā. (Yajurveda 18. 63) – Cane grass mats.

*Śikyāni*. (Atharvaveda 9-3-6) - A Chhika (Shikhar) is hanged at height to protect milk, curd, ghee etc. It is made from a rope of buckle, flax or jute.

These objects can be decomposed and reused as fertilisers and manure, which are beneficial for the land and environment [24]. For centuries, the Hindu inspired-based lifestyle has always included ways to 'reduce, reuse and recycle'. By adopting the tradition, we learn to adopt a lifestyle of minimum waste.









## Islam:

"In it there are men who love to observe purity and Allah loves those who maintain purity." (Quran 9:108)

"Children of Adam! Wear your beautiful apparel at every time and place of prayer and eat and drink. But do not be excessive – verily God does not love the wasteful." (Quran 7:31)



Figure 5: Islam Source: Image by Abdullah Ghatasheh/Pexels.com

Purity is an essential part of Islam. Islam askes humans to observe cleanliness within and around them. The Islamic religion guides that God does not like wasteful acts and one should preserve what is given by Allah [25], [26].

Translation: "It is He Who has brought into being gardens, the cultivated and the wild, and date-palms, and fields with produce of all kinds, and olives and pomegranates, similar (in kind) and variegated. Eat of their fruit in season, but give (the poor) their due on harvest day. And do not waste, for God does not love the wasteful." (Quran 6:141)

Waste can be in many forms. The Quran describes excessive consumption of resources to creating trash as being wasteful. Quran states that through the Quran, Islam guides us to maintain our purity and minimise waste, stating another example for a lifestyle of responsible production and consumption [27].





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## Dainism:

Similar to Buddhism, Jainism also has similar principle of karma, non-violence, kindness and oneness. Jain religion focuses much attention on one of the cardinal principles of 'Aparigraha', which means that one should observe the principle of 'non-possessiveness' towards material things which is obtained through self-control, penance, prohibition from over-indulging and voluntary curtailment of one's needs. These principles aspire them to live simply with pure body, mind, soul and surroundings. The simplicity results in minimum resource utilisation and waste generation [28], [29].



Figure 6: Mahavir Source: Image by Arham Yoga/Pixabay.com

# Judaism:

"I, the God of Israel, will not forsake them. I will open rivers in high places and fountains in the midst of valleys; I will make the wilderness a pool of water and the dry land springs of water." (Isaiah 41:17-18).

In Judaism, there is a belief that God made humans to safeguard the Earth and not harm or pollute it in any way. The Earth is like a loan from God, and we must work towards preserving it [30].



Figure 7: Judaism Source: Image by hurk/Pixabay.com

By polluting Earth (waste generation), we are destroying it. The Jewish concept, 'Bal Taschit' (do not destroy), forbids us to destroy needlessly [17]. The ancient Jews also had a few specific rules on purity which ranked objects according to the level of uncleanliness [31].

"You shall be holy, for I the Lord your God am holy" (Lev 19:2)

Thus, cleanliness is an important concept in ancient Jewish laws and tradition that still apply today [31].











# Sikhism:

"When I saw truly, I knew that all was primeval. Nanak, the subtle (spirit) and the gross (material) are, in fact, identical." (Guru Granth Sahib, p. 281)

Figure 8: Golden Temple Gurudwara Source: Image by Simarpreet Kaur/Unsplash.com

Similar to the preaching of Baha'I and Buddhism, Sikhism also emphasises the principle of 'Interconnectedness of all creation'. Guru Grath Sahib explains the unity of spirit and matter through various references [32]. We are all interconnected, Earth is a part of us, we are a part of Earth and at the end we are all part of God. We are not the masters of any external forms or beings and do not have the right to pollute it (by generating unnecessary waste). Sikhism teaches us against wasteful consumption [33].

"The Creator created himself..... And created all creation in which he is manifest. You Yourself the bumble-bee, flower, fruit and the tree. You Yourself the water, desert, ocean and the pond. You Yourself are the big fish, tortoise and the cause of causes. Your form can not be known." (Guru Granth Sahib, p. 1016)

*"The God-conscious person is animated with an intense desire to do good in this world."* (Guru Granth Sahib, p. 273)

There is a belief in Sikhism that God is the creator of everything and exists in every form and material. A person who believes in God will not harm what was created by God to nurture us. Thus, harming the planet in any form (creating waste) will be injustice against the creation itself.

Following the scripture it could be concluded that every religion/faith has messages where they have asked their followers to maintain cleanliness and manage waste by following a simple lifestyle of needful consumption and managing their resources appropriately.







## 

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