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Reducing Plastic Waste in the Ganga

Plastic Waste Management Action Plan 2022

Rishikesh Nagar Nigam

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Plastic Waste Management Action Plan 2022 Rishikesh Nagar Nigam

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Aviral – Reducing Plastic Waste in the Ganga is a project powered by the Alliance to End Plastic Waste and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH with the objective to reduce plastic waste entering the environment. The project is implemented in partnership with the Nagar Nigam Rishikesh in developing approaches for sustainable and replicable plastic waste management solutions and contributing to the flagship program of Swachh Bharat Mission and Namami Gange.

Executive summary

Plastic plays an important role in our economy and in our daily lives. Plastic is a very heterogenous and versatile material, however, today's plastic production, its use and its consumption too often harm the environment, as the dominant linear model of make-use-throw has led to unsustainable consumption and production patterns, which result in rapidly rising quantities of plastic waste putting additional pressures on ecosystems.

In 2022, it is estimated that India consumes approximately 22 million MT of plastic with over 40% of the plastic being utilised for single-use packaging[1]. Ultimately, most of this plastic ends up in low-lying areas, dumpsites, and water bodies thus, contributing significantly to the problem of marine litter. In addition to this, India's plastic consumption is increasingly outpacing the ability of urban waste management infrastructures to ensure a sustainable processing of plastic waste. If current trends continue, India could become the largest plastic waste generator by 2035[2]. With India's rising urban populations and an increasing per-capita waste generation, sustainable solutions to prevent plastic waste leakage are imperative.

Uttarakhand addresses its plastic waste management challenge through the Uttarakhand Plastic Waste Management Action Plan, which was released in 2019 by Urban Development Directorate. The city of Rishikesh is one of India's most prominent pilgrimage sites and a major tourist destination and experiences large influxes of tourists every year. The city has recognized the need for immediate action to address the impacts of improper plastic waste management. With the Rishikesh Plastic Waste Management Action Plan (PWMAP), the Rishikesh Nagar Nigam (RNN) aims to protect the environment and support more sustainable and safer consumption and treatment patterns of plastics. The provision of transparent and logical measures for plastic waste collection, treatment and processing / recycling in line with State and National legislation shall reduce environmental impacts of plastic waste pollution and increase the technical and economic efficiency of Rishikesh's plastic waste management system.

This action plan is based on information from a baseline assessment on plastic waste material flows and existing plastic waste management in Rishikesh, which was conducted in 2020 as part of the project Aviral – Reducing Plastic Waste in the Ganga[3]. In addition to this, information was collected in a participatory and consultative exchange with key stakeholders of the city and in line with State and National legislation, such as the Uttarakhand Plastic Waste Management Action Plan, 2019, the Plastic Waste Management Rules, 2016 (PWM Rules, 2016), as amended, 2018 and the Plastic Waste Management (Amendment) Rules, 2021 and 2022. The identified measures are developed against the backdrop of the waste hierarchy concept.

1- World Business Council for Sustainable Development, 2019. Towards a better way of managing plastic waste in India. Accessed date: Aug 2021. Published date: Nov 2019. Link
2- Lebreton, L., Andrady, A., 2019. Future scenarios of global plastic waste generation and disposal. Palgrave Communications 5, 6.
3- Aviral Ganga - Reduce Plastic Waste in Ganga

In this Rishikesh Plastic Waste Management Action Plan, the first four strategies have been identified. The subsequent eight actions and related measures, which are to be implemented over the period of the next five years, focus on prevention, segregation and collection as well as treatment.

Table 1: Summary of Rishikesh Plastic Waste Management Action Plan

Strategy	Action	Measure
Strategy 1 for plastic waste prevention (Reduce and Rethink)	**Action 1:** Implementation of single-use plastics ban	Compulsory reusable crockery and cutlery
		Rishikesh's function as a role model
		Plastic carry bag provision and usage
	Action 2: Reduce plastic waste entering the environment	Awareness raising and public participation
		Clean-ups
		Green events
		Cooperation with commercial establishments
Strategy 2 for plastic waste reuse	**Action 3:** Support reuse	Rishikesh Reuse Dialogues
		Reuse IEC material
Strategy 3 for plastic waste processing	**Action 4:** Implementation of source segregation	Information for waste generators and the commercial sector
		Set-up of buy back system in cooperation with commercial sector
	Action 5: Implementation of collection and transportation of segregated waste	Rishikesh Collection and Transportation Plan
		User fee collection
		Capacity development plan
		Integration of informal waste workers in collection processes
	Action 6: Support local sorting and processing infrastructure	Planning of Lal Pani
		Rethinking plastic waste and support to innovation
	Action 7: Support to plastic waste recovery	Clearing up the legacy waste at Govind Nagar dumpsite
		Use of MLP and Low Value Plastic (LVP)
Strategy 4 for scientific plastic waste proposal	**Action 8:** Support to scientific disposal	Set-up of integrated waste processing and scientific disposal facility at Lal Pani

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Abbreviations

CPCB	Central Pollution Control Board
DoE	Department of Environment
EPR	Extended Producer Responsibility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
HDPE	High-density polyethylene
HH	Household
INR	Indian Rupee
LDPE	Low-density polyethylene
MLP	Multi-layered plastic
MRF	Material Recovery Facility
MoEFCC	Ministry of Environment, Forest and Climate Change
PWM	Plastic Waste Management Rules, 2016
RNN	Rishikesh Nagar Nigam
SPCB	State Pollution Control Board
TC	Technical Cooperation
ToR	Terms of Reference
UDD	Urban Development Department, Uttarakhand

Relevant Definitions

Bio-based	A material that is wholly or partly derived from biomass
Biodegradable	A material that with the help of micro-organisms can break down into natural elements (e.g., water, carbon dioxide, biomass)
Chemical recycling	A process that breaks down polymers into individual monomers or other chemical feedstock that are then be used as building blocks to produce polymers again
Combustible waste	Non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1,500 kcal/kg excluding chlorinated materials like plastic, wood and pulp, etc.[4]
Compostable plastics	Plastic that undergoes degradation by biological processes during composting to yield CO_2, water, inorganic compounds and biomass at a rate consistent with other known compostable materials, excluding conventional petro-based plastics, and does not leave visible, distinguishable or toxic residue[5]
Plastic	A material which contains as an essential ingredient a high polymer such as polyethylene terephthalate, high density polyethylene, vinyl, low density polyethylene, polypropylene polystyrene resins, multi-materials like acrylonitrile butadiene styrene, polyphenylene oxide, polycarbonate, polybutylene terephthalate[6]
Plastic waste	Any plastic discarded after use or after their intended use is over[7]
Recycle	A process of transforming segregated plastic waste into a new product or raw material for producing new products
Reuse	Using an object or resource material again for either the same purpose or another purpose without changing the object's structure
Single-use plastic	A plastic commodity intended to be used once for the same purpose before being disposed of or recycled[8]
Virgin plastic	Plastic material which has not been subjected to use earlier and has also not been blended with scrap or waste[9]

4- Ministry of Environment, Forest and Climate Change (2016), Solid Waste Management Rules, 2016.
5- Ministry of Environment, Forest and Climate Change (2016), Plastic Waste Management Rules, 2016.
6- Ministry of Environment, Forest and Climate Change (2016), Plastic Waste Management Rules, 2016.
7- Ministry of Environment, Forest and Climate Change (2016), Plastic Waste Management Rules, 2016.
8- Ministry of Environment, Forest and Climate Change (2016), Plastic Waste Management Rules, 2021.
9- Ministry of Environment, Forest and Climate Change (2016), Plastic Waste Management Rules, 2016.

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1. Introduction

Plastic plays an important role in our economy and in our daily lives. Plastic is a very heterogenous and versatile material. It is lightweight, durable and malleable and because of these features, polymer plastics have been used in almost all areas of modern civilization since its invention in the mid-19th century. However, the risks and problems associated with plastics are about as many as the possible uses.

Plastic waste, if not managed appropriately, has negative impacts on the environment and human health. Today's plastic production, its use and its consumption too often harm the environment, as the dominant linear model of 'make-use-throw' has led to the unsustainable consumption and production patterns, which contribute to rapidly rising quantities of plastic waste putting additional pressures on ecosystems around the world.

Rethinking established systems and transitioning to a more circular plastics economy requires the involvement and cooperation of all relevant key players. Rethinking established systems becomes even more critical in response to the COVID-19 pandemic, when countries around the globe are working toward green recovery. Managing plastic waste is a global problem: The plastic production rate has risen twentyfold over the past 70 years and is expected to double again over the next two decades. It is expected that by 2025 over 250 million tons of plastic waste will circulate in the oceans. A transition to the plastics of the future requires a systemic change which is based on and enhanced by an enabling environment and policy framework.

In 2022, it is estimated that India consumes approximately 22 million MT of plastic with over 40% of the plastic being utilized for single-use packaging[10]. Ultimately, most of this plastic ends up in low-lying areas, dumpsites, and water bodies thus, contributing significantly to the problem of marine litter as well, as India's plastic consumption is increasingly outpacing the ability of urban waste management infrastructures to ensure a sustainable processing of plastic waste. If current trends continue, India could become the largest plastic waste generator by 2035[11]. With India's rising urban populations and an increasing per-capita waste generation, sustainable solutions to prevent plastic waste leakage are imperative. Cities in the Indian state Uttarakhand, which experience large influxes of tourists every year, require immediate action to address the impacts of improper plastic waste management.

In April 2019, the Urban Development Directorate, Uttarakhand (UDD) released the Uttarakhand Plastic Waste Management Action Plan 2019. The action plan aims to guide all Urban Local Bodies (ULBs) towards sustainable plastic waste management as per the Plastic Waste Management Rules, 2016 (PWM Rules, 2016), as amended, 2018, the Solid Waste Management Rules, 2016 and the Plastic Waste Management (Amendment) Rules, 2021 and 2022 respectively. The plan outlines the states approach to working towards a Swachh Uttarakhand in line with the Swachh Bharat Mission by adopting measures to improve the management of plastics throughout its lifecycle – from production and consumption through to disposal, recovery and recycling. The UDD puts a strong emphasis on the principles of 5R, namely reduce, reuse, recycle, recover and rethink.

Under the Uttarakhand Plastic Waste Management Action Plan, 2019, the UDD has adopted several targets. In order to address the overall plastic waste management challenge and the respective targets outlined by the UDD as well as the new regulations under the Plastic Waste Management (Amendment) Rules, 2022, Rishikesh Nagar Nigam (RNN) has developed a Rishikesh Plastic Waste Management Action Plan (PWMAP).

10- World Business Council for Sustainable Development, 2019. Towards a better way of managing plastic waste in India. Accessed date: Aug 2021. Published date: Nov 2019.

11- Lebreton, L., Andrady, A., 2019. Future scenarios of global plastic waste generation and disposal. Palgrave Communications 5, 6.

With this Rishikesh PWMAP, the RNN aims to protect the environment and support more sustainable and safer consumption and treatment patterns for plastics. The provision of transparent and logical measures for plastic waste collection, treatment and processing / recycling in line with State and National legislation shall reduce environmental impacts of plastic waste pollution and increase the technical and economic efficiency of Rishikesh's plastic waste management system.

The PWMAP is based on information from a baseline assessment on plastic waste material flows and existing plastic waste management in Rishikesh, which was conducted in 2020 as part of the project Aviral – Reducing Plastic Waste in the Ganga[12]. In addition to this, information was collected in a participatory and consultative exchange with key stakeholders of the city and in line with State and National legislation, such as the Uttarakhand Plastic Waste Management Action Plan, 2019, the Plastic Waste Management Rules, 2016 (PWM Rules, 2016), as amended, 2018 and the Plastic Waste Management (Amendment) Rules, 2021 and 2022. The identified measures are developed against the backdrop of the waste hierarchy concept.

This Rishikesh Plastic Waste Management Action Plan (PWMAP) sets out the first 8 Actions and subsequent measures, which focus attention on prevention, segregation and collection as well as treatment. These actions are to:

1. **implement** India's single-use plastic (SUP) ban,

2. **reduce** plastic waste entering the environment,

3. **support** reuse,

4. **implement** source segregation,

5. **implement** collection and transportation of segregated waste,

6. **support** local sorting and processing,

7. **support** waste recovery and

8. **support** local disposal facilities.

Application

The Rishikesh PWMAP shall apply to every waste generator, local body, manufacturer, importers and producers within municipal limits. Further enforcement/implementation stakeholders include NGOs, private vendors, academia, technical agencies such as GIZ and relevant road construction authorities within municipal limits.

Implementation Timeline

Rishikesh's Plastic Waste Management Action Plan, with a 5-year timeline, addresses a wide range of short-term, mid-term and long-term measures, with the aim of preventing plastic waste from entering the environment and reduce existing plastic waste pollution. A mid-term course correction is planned after the first 3 years of implementation. At the end of the 5 years, the RNN will facilitate an impact evaluation. When the term of a Municipal Commissioner ends, a signed off PWMAP status update will be transferred to the incoming Municipal Commissioner.

12- Aviral Ganga - Reduce Plastic Waste in Ganga (aviralganga.in)

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2. Rishikesh's Plastic Waste Management Scenario

2.1. Plastic Waste Quantification in Rishikesh

In Rishikesh, municipal solid waste (MSW) contains 69% organic waste and the overall plastic share in the total solid waste of Rishikesh amounts to approximately 12% from household waste and 16% from commercial establishments. The composition of the dry waste fraction from households and commercial establishments are presented in Figure 2 and Figure 3 below. The share of plastic waste is the highest in the overall dry waste fraction from both waste generator types (37% in household dry waste and 41% in commercial dry waste). The second largest category of both generator types is paper waste. Apart from this, the dry waste compositions of households and commercial establishments vary substantially. A notable difference is a comparatively high share of textile waste in the household dry waste, comprising of old rags and cloths. Waste from commercial establishments, however, have an increased share of inert glass and ceramic items.

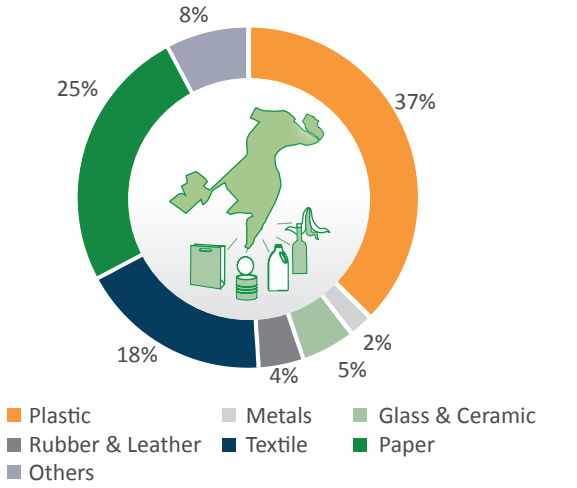

Figure 1: Overall composition of dry waste, Rishikesh.

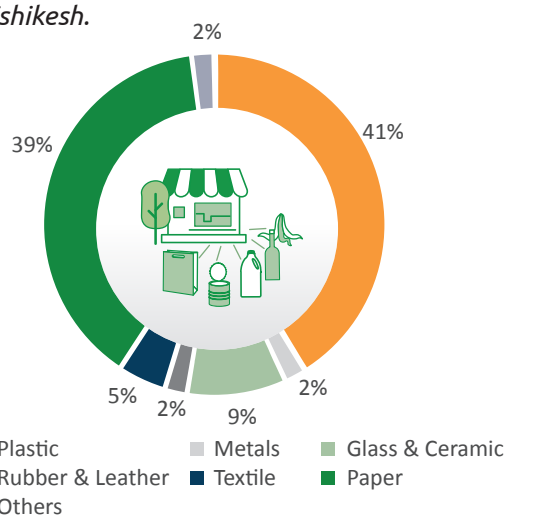

Figure 2: Dry waste composition of commercial waste, Rishikesh.

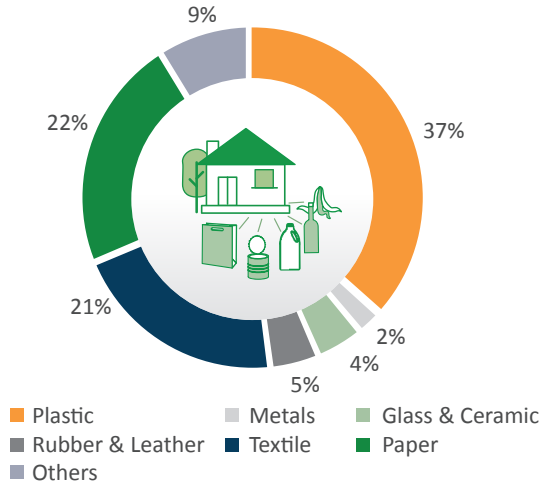

Figure 3: Dry waste composition of household waste, Rishikesh.

Within the plastic waste, 52% are comprised of LDPE, while waste materials of higher value like PET and HDPE have a share of 9% and 16% respectively. For the urban waste generation, a total daily mass flow of 31.4 tons/day is estimated. Approx. 9% of all generated plastic waste remain unmanaged and leak into the environment, caused to 73% by uncollected waste and to 22% by leakages during waste collection and transportation. Plastic waste leakage hotspots exist primarily in the city center with a high density of commercial establishments and tourism influx. Besides three smaller composting facilities, the city disposes their entire daily waste generation without further treatment on an open dumpsite within the city center. Informal traders of recyclables in Rishikesh trade majorly plastic materials, followed by paper and metal.

Rishikesh does not have a recycling infrastructure. Recyclables collected by the informal sector are aggregated and transported to other cities. Only 8% of households and 7% of the commercial establishments use two different bins to segregate their waste into wet and dry waste. However, even these segregated waste amounts are mixed during collection and disposed together on the city's dumpsite. Waste leakage was majorly found during waste transfer and outside of commercial establishments.

2.2. Plastic Waste Management in Rishikesh

Waste collection and street sweeping is done by the RNN. From January 2021 onwards, a new contractor for waste collection took up this task on behalf of the RNN. Although few households collect waste in two different bins (dry and wet waste), the collection system used to mix both streams together to transport the waste to the local dumpsite at Govind Nagar due to lack of proper infrastructure. These scenarios are changing and RNN is working towards a better and sustainable waste collection and transportation system.

Currently, the door-to-door collection is majorly carried out with the help of auto tipper vehicles. Tricycles and pushcarts are used in wards with narrow roads and alleys where tippers would not be able to enter. The waste collected through tipper vehicles is going directly to the local dumpsite. For collecting waste from street sweeping and drain cleaning, dedicated vehicles are used in coordination with the drain cleaning team.

Additionally, RNN is using community bins which are emptied almost every day. The field observations of collection trips revealed that in Rishikesh, only approx. 70% of the daily waste is being collected through the door-to-door collection system.

The municipality has three composting pits at six locations viz. Smritivan, Residence of the Municipal Commissioner and Sub Divisional Magistrate near Tehsil, Hatwal park, Municipal Corporation premises, Sabzi Mandi, and Govind Nagar trenching ground. Two are treating wet waste from seven wards, one is composting wet waste from the local vegetable and fruit market. The wet waste is transported to the facilities by the collection system.

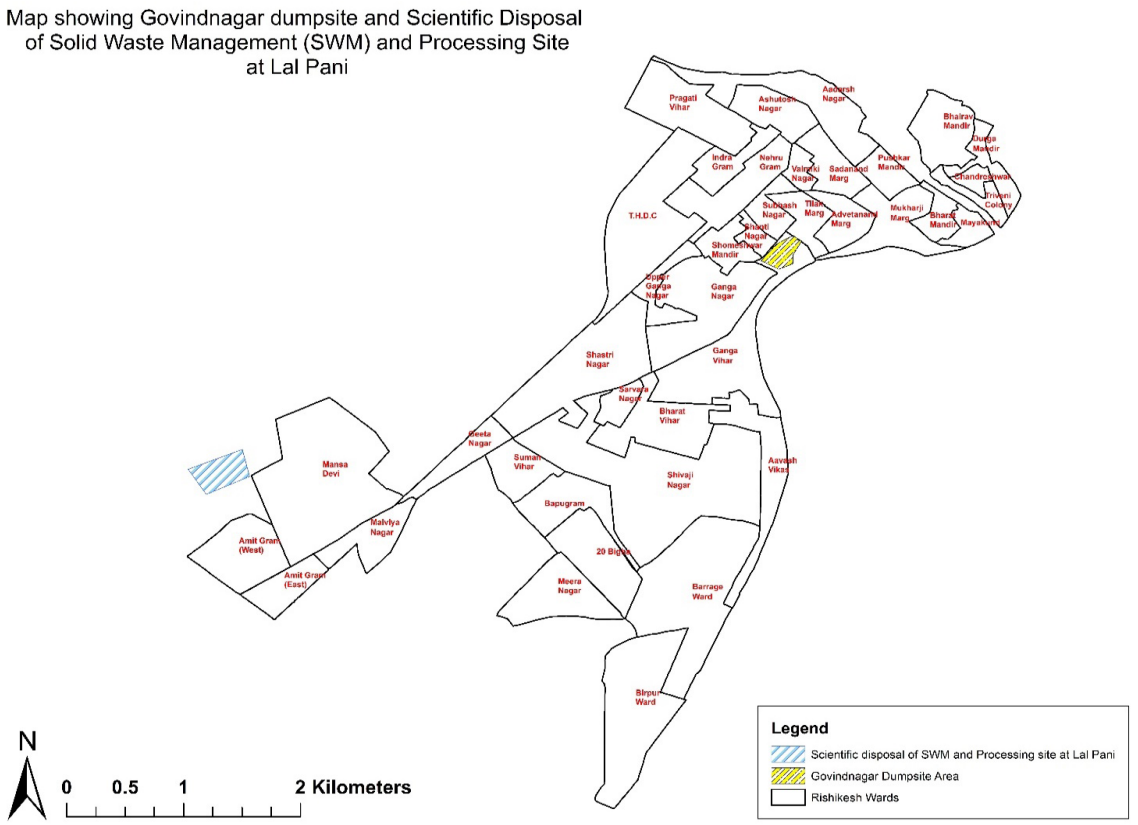

Figure 4: Map showing Govind Nagar dumpsite and scientific disposal of SWM and processing site at Lal Pani

Rishikesh does not have any facility for processing, sorting or treatment of dry waste. All dry waste and most wet waste are collected from household, commercial establishments, institutions, hotels, street sweeping, community bins and drain cleaning and transported to the dumping ground located at Govind Nagar. The dumpsite covers an area of approx. 6.5 hectare and is an open disposal area without scientific provisions. Since the area is not scientifically designed, it does not have a specific capacity. Currently the remediation of dumpsite is ongoing.

In a ten-hectare area at Lal Pani adjacent to the western boundary of the municipality, a new processing and sanitary landfill is currently being planned for the municipality cluster of Rishikesh and neighboring towns of Doiwala, Muni Ki Reti, Swargashram and Narendra Nagar. The land is currently being prepared and a tender for selection of the agency is ongoing. The facility is envisaged to start in the second half of 2022. Both locations within Rishikesh are presented in Figure 4.

2.3. Plastic Waste Projections for Rishikesh

Projection of development of waste quantities and compositions during the time period covered by this PWMAP.

Table 2: Population forecast for RNN

S. No.	Name of the ULB	1991	2001	2011	2018	2021*	2027*	2031*
1	Rishikesh NPP (till 2017)[13]	44,487	59,540 (+33.84)	70,499 (+18.40)				
2	Rishikesh Nagar Nigam (2017 onwards)[14]				1,06,320 (+50.81)	1,13,556 (+61.1)	1,64,880 (+45.2)	2,09,846 (+84.8)

Data Source: As outlined in footnotes below

The projections show 1,64,880 people residing in Rishikesh by the horizon year 2027. In addition to that, 12%[15] tourist influx is seen during 2020. Assuming that the tourist influx remains at 12%, the total population which will/shall require waste management services will presumably increase to 1,84,666.

The generation of waste will also increase by minimum of 50 %, rather more.

13- RCUES, Lucknow
14- GIZ Aviral Project
15- Aviral, Rishikesh baseline study report 2020

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3. Plastic Waste Policy Framework

3.1. Legal Basis at the National Level

Policy / Initiative	Key Policy Instruments / Recommendations
Plastic Waste Management Amendment Rules, 2021	› Phase out 20 Single Use Plastic (SUP) items by 2022: The prohibition of the manufacture, import, stocking, distribution, sale and use of the following items, including polystyrene and expanded polystyrene, will come into force from 1 July, 2022. The items include earbuds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [thermocol] for decoration. It also includes plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, stirrers, wrapping or packing films around sweet boxes, invitation cards, cigarette packets, plastic or PVC banners of less than 100 microns; › From 30 September 2021, permitted plastic bags will have to have a thickness of 75 microns. Next year, starting 31 December, permitted plastic bags will have to be 120 microns thick; › Mandatory source segregation; › ULBs shall engage agencies or groups working in waste management including waste pickers; › Polluter pays principle; › The municipal authority may work out the modalities of a mechanism based on Extended Producer's Responsibility involving such manufacturers, registered within it's jurisdiction and brand owners with registered offices within its jurisdiction either individually or collectively, as feasible or set up such collection systems through its own agencies.

Policy / Initiative	Key Policy Instruments / Recommendations
Solid Waste Management Rules, 2016	› Segregation at source: The waste generator is mandated to source segregate in biodegradable, non-biodegradable (recyclable and combustible) and domestic hazardous wastes. The ULBs shall create awareness on practice segregation. › Collect back scheme for packaging waste: As per the rules, brand owners who sell or market their products in packaging material which are non biodegradable, should put in place a system to collect back the packaging waste generated due to their production; › User fees collection: Municipal authorities will levy user fees for collection, disposal and processing from bulk generators. As per the rules, the generator will have to pay "User Fee" to the waste collector and a "Spot Fine" for littering and non-segregation, the quantum of which will be decided by the local bodies; › Informal worker integration: Waste pickers shall be involved to prepare a state policy and solid waste management strategy for the state, in which the primary role played by the informal sector of waste pickers, waste collectors and recycling industry in reducing waste shall be acknowledged, and broad guidelines regarding integration of waste pickers or informal waste collectors in the waste management system shall be provided. Waste pickers and waste dealers shall be registered; › Recycling: The ULBs may provide incentives to recycling initiatives of the informal waste recycling sector; › State policy and strategy on solid waste management shall put emphasis on implementation of waste hierarchy concept to ensure minimisation of waste going to landfills. Local authorities shall allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfills; › Zero waste: Efforts shall be made to adopt the zero-waste concept; › Manufacturers of disposable products such as tin, glass, plastics, packaging etc. shall provide necessary financial assistance to local authorities for establishment of waste management system.
Swachh Bharat Mission 2.0	› The manual provides guidance to urban local bodies on the planning, design, implementation and monitoring of municipal solid waste management systems. Issues of environmental and financial sustainability of these systems are a critical consideration. › Focus on recycling, development of Material Recovery Facilities, and managing plastic waste, especially SUP; › Awareness campaigns for behavioural change in regard to source segregation and recycling

3.2. Legal Basis in the State of Uttarakhand

Policy	Policy Instruments / Recommendations
Uttarakhand Plastic Waste Management Action Plan 2019	› Identification of plastic waste minimisation measures at source with an emphasis on the principles of 5Rs; › The state is to ban the use of plastic bags or instruct producers on reduce, reuse and recycle of different products; › Mandatory source segregation as per PWM Rules; › Extended Producer Responsibility (EPR): State level authority to monitor the material flow of packaging material from the point of production or entry into the state to the recycling or reuse of those materials. The state is to set up a Producer Responsibility Organisation (PRO) which manages and finances the system by levying fees from the producers, who use packaging material to bring their products to the point of sale. PROs shall be responsible for: - Recycling rates are stipulated by the state and declared by the producers are achieved - Disbursement of fees from the producers to the collectors to incentivise the collection of the recyclables which are currently ending up in the landfills; › Collect back system: Producers, importers and brand owners to introduce collect back system for plastic waste of their multi-layered products; › Phase out of non-recyclable multi-layered plastic within 2 years of release of the action plan; › ULB to set up an own collection system during Major Festival Season and Tourism Inflow; › Integration of local waste workers; › Establishment of environment-friendly plastic waste disposal solutions.

Policy	Policy Instruments / Recommendations
Uttarakhand Plastic and Other Non-Biodegradable Garbage (Regulation of Use and Disposal) Act 2013	› No person, by himself or through another, shall knowingly or otherwise, sale, trade, manufacture, import, store, carry, transport, use, supply or distribute the following plastic/thermocol/Styrofoam items in the entire state of Uttarakhand. › The authorities or owners of places of religious worship or institutions, multiplex, malls, hotels and restaurants, cafe, mobile food counters or vans, caterers and other such places like marriage or party halls, offices or institutions and the outdoor event shall be responsible for ensuring strict compliance of the aforesaid provisions and they shall provide space for collection of plastic waste within their campus and shall send it to the recyclers, duly registered with Uttarakhand Pollution Control Board. › Manufacturers of Products of Polyethylene Terephthalate (PET/ PETE) bottles for bottled drinking water and soft drinks shall take back the Polyethylene Terephthalate (PET/PETE) bottles and plastic waste respectively through the same retail sales network under mutually agreed terms and conditions based on Extended Producer's Responsibility or they have to mandatorily compensate expenses incurred by the local authorities (Urban Local Bodies and Village Panchayats etc.) in collection, transportation and safe disposal of the plastic waste generated due to their products. › All manufacturing units engaged in manufacturing of the items as mentioned under clause I(aXi) to clause I(a)(iii) shall have to stop manufacturing of such items within six months from the date of issue of this notification.

3.3. Legal Basis in the City of Rishikesh

Policy	Policy Instruments / Recommendations
Nagar Nigam Rishikesh Solid Waste Management Byelaws, 2019	RNN released their solid waste management byelaws in the Uttarakhand Gazzette published on 15th February 2020. These byelaws are called Nagar Nigam Rishikesh Solid Waste Management Byelaws, 2019. These byelaws are based on SWM Rules, 2016. › Byelaws define user charges and fines specific to the city limits. › RNN shall strive to formalise and ensure smooth functioning of the solid waste management infrastructure through inclusion of informal waste collectors. › Develop recycling centres and transfer stations specific for dry waste. › RNN shall appoint nodal officers to monitor and ensure segregation, collection, transportation, and processing of the rank Assistant Municipal Commissioner or equivalent preferably.

4. Plastic Waste Management Strategies

Rishikesh's plastic waste management strategies are based on the principles of 5R: reduce, reuse, recycle, recover and rethink. These principles have been laid down in the Solid Waste Management Rules, 2016 as well as in the Uttarakhand Plastic Waste Management Action Plan, 2019 and form the basis of the RNN's strategic orientation on plastic waste. In close cooperation with all relevant stakeholders, 8 Actions with subsequent measures were defined in order to reduce the city's plastic waste flow and to steer the plastic waste value chain on a sustainable and efficient path. The RNN fundamentally supports closed loop recycling and the prevention of waste. For this reason, specific measures have already been adopted in recent years, such as clean-up activities, citizen engagement concepts against littering, declaration of litter free Triveni Ghat and further development of cluster level integrated waste processing and disposal facility at Lal Pani.

Limitations/Challenges

1) Due to high tourist inflow, the amount of plastic waste generated by floating population is fluctuating, which requires the RNN to respond flexible to plastic waste management requirements.
2) The creation of awareness and behavioral change among the floating population is a challenge as campaigns need to be tailored accordingly.
3) Difficult terrain and limited ownership of the land by RNN result in challenges when finding suitable sites for waste management purposes within the city limits.

Principles

The following principles apply to the city of Rishikesh when it comes to the handling of plastics:

1) The entry of plastic waste into the environment must be prevented.
2) The RNN is committed to ensure that no single-use plastic (SUP) items, for which there are ecologically better alternatives, are being introduced in the markets.
3) Plastics must be collected and recycled once it is ecologically beneficial and financially viable.
4) Out of 5R's, Reduce Reuse Recover & Rethink are happening but Recycle at municipal level will only starts after the Lal Pani facility is operational.

Timelines

The horizon year of this PWMAP is calendar year 2027. Based on the 5-year commitment and vision of RNN, all the actions are categorized into three viz. short term, Medium term and Long term. The definitions and timelines are as follows:

1) **Short term** – Short term refers to the activities which are ongoing or envisaged to start by the end of calendar year 2022.
2) **Medium term** – The PWMAP has its midterm review due in May 2025 under the chairmanship of the Municipal Commissioner. All activities that have to be achieved before this mid term review have been categorized as medium term.
3) **Long term** – All actions that are envisaged to be completed by the end of calendar year 2027 will be considered as long term. In addition to this any new actions added during the mid-term review will be targeted to be completed by end of 2027. All actions that are recurring and which must be sustained till the horizon year are also included in this.

4.1. Strategy 1 for Plastic Waste Prevention (Reduce and Rethink)

Plastic waste prevention is a top priority in India's plastic waste management approach, which is reflected in the recently notified Plastic Waste Management (Amendment) Rules, 2022, prohibiting identified single-use plastics items by 2022. Waste prevention is also an important element in Uttarakhand's Plastic Waste Management Action Plan, 2019, as the action plan is based on the principles of 5R, **reduce, reuse, recycle, recover and rethink**.

4.1.1. Action 1: Implementation of single-use plastics ban

In response to Prime Minister Modi's 2021 announcement to phase out SUPs by 2022, which is also reflected in the Plastic Waste Management (Amendment) Rules, 2022, the RNN is making reusable crockery and cutlery compulsory for events and sales outlets in public spaces. With this measure the reduction and the use of the identified SUP items can be addressed in a targeted manner. In addition, the ongoing project, Aviral - Reducing Plastic Waste in the Ganga, which focuses on the reduction of plastic waste entering the cities environments of Haridwar and Rishikesh, has contributed to Rishikesh spearheading innovative solutions regarding plastic waste reduction and becoming a role model in terms of plastic waste prevention in the area. Demarcation of major tourist areas, e.g., Triveni Ghat, as litter free zone is one of them. An important contribution to the reduction of SUPs can also be made by the commercial sector and the individual consumer when it comes to plastic carry bags. The individual measures are explained below.

Measures 1 to 3 have been defined for this purpose, with a specific focus on waste prevention at public events, on awareness raising campaigns and waste prevention in the commercial sector.

4.1.1.1. Compulsory reusable crockery and cutlery

The prohibition of the manufacture, import, stocking, distribution, sale and use of SUP items including e.g., plates, cups, glasses, cutlery and stirrers, as outlined under Rule 4 (2) (b) of the Plastic Waste Management Amendment Rules, 2021, came into force from July 1, 2022. With this, the legislature achieved a great deal of progress. Reusable crockery and cutlery for public events and sales outlets in public spaces will be especially effective in a city like Rishikesh, which is one of India's most prominent pilgrimage sites and a major tourist destination. In one year, the average daily tourist influx of 4,805 ± 39% varies strongly in festive seasons and is generally higher on weekends due to short time tourist visits from the nearby cities of Delhi-NCR. According to the RNN, weekend stays contribute to 60 to 75% of the total weekly tourist population. As a result, the daily tourist population on weekends can amount to up to 30% of the total urban population of Rishikesh and has a significant impact on Rishikesh's urban infrastructure, especially its waste management system. This measure helps to curb littering in Rishikesh.

4.1.1.2. Rishikesh's function as a role model

Rishikesh shall continue its function as a role model in the area of waste prevention. In order to response to the prohibition of selected SUP items by July 2022, reusable crockery and cutlery are to be used, when dispensing beverages and food in buildings and on property that is owned by the RNN, as well as those used by the RNN. This means that in administrative buildings or in school buildings in Rishikesh, it is not permitted to dispense drinks or food in SUP products. In addition to the specific waste prevention, this measure creates awareness among the municipality's employees, which can be further spread.

4.1.1.3. Plastic carry bag provision and usage[16]

Plastics of all types are non-biodegradable and significantly harm the delicate natural balance. They often cause reduction in fertility of agricultural fields, cause blockage of urban drains and sewers, resulting in an overflow of waste water. Many a times, these are swallowed by cattle, especially cows, and wild animals and ultimately cause their death. The colour pigments present in the plastic have been proven to contaminate food products in their contact. This contamination could be carcinogenic.[17]

Plastic products take hundreds of years for degradation and during the degradation they convert into microplastics which choke the soil pores ultimately blocking the rainwater infiltration. During monsoon, these plastic items serve as breeding ground for vector borne diseases like malaria, dengue etc. In hilly areas, such as Uttarakhand, burning of waste is common disposal malpractice. Again, this action releases carcinogenic and toxic substances like dioxins, furans and hydrogen cyanide in the air. Plastic waste and micro plastic cause danger to fresh and marine water biodiversity and also hamper ecosystem services due to spreading of such waste in and around ecosystems, on tourists places, heritage sites, eco-fragile areas like- Bugyals (grasslands), high altitude areas and on agriculture and forest areas. Recently, microplastics have been found in human blood samples as well.[18]

Any Violation of provisions in the Act shall attract the penalty as follows:

Table 3: Penalties mentioned in the Act

Violators	Amount of Penalty
Manufacturer	Rs 5 Lakh
Transporter	Rs 2 Lakh
Whole sellers/Traders	Rs 1 Lakh
Individual Users	Rs 100

For subsequent violation by the same legal entity shall attract twice the fine mentioned above.

To be in consensus with the above notification from Govt. of Uttarakhand it is very important for different stakeholders to follow their responsibilities as prescribed in the table of action below.

16- Government of Uttarakhand in exercise of the powers conferred by section (l) of section 3 of the Uttarakhand Plastic and Other Non Biodegradable Garbage (Regulation of Use and Disposal) Act 2013
17. Health Hazard Alert - Benzidine, o-Tolidine and o-Dianisidine Based Dyes | NIOSH | CDC
18. Discovery and quantification of plastic particle pollution in human blood - ScienceDirect and Scientists find microplastics in blood for first time - The Hindu

To counter these ill effects of single-use plastics, Government of Uttarakhand in exercise of the powers conferred by section (l) of section 3 of the Uttarakhand Plastic and Other Non-Biodegradable Garbage (Regulation of Use and Disposal) Act 2013, the restriction and prohibition on plastic as follows:

1.(a) No person, by himself or through another, shall knowingly or otherwise, sale, trade, manufacture, import, store, carry, transport, use, supply or distribute the following plastic/thermocol/Styrofoam items in the entire state of Uttarakhand.

(i) Polythene carry bags of any shape (with or without handle), thickness, size& colour; and non-woven poly propylene bags Provided above restriction shall not be applicable on bio-compostable plastic bags and polybags more than 50 micron thickness used for handling, collection, transportation of the waste such as bio medical waste, municipal solid waste und hazardous waste.

(ii) Single-use disposable cutleries made up of thermocol (polystyrene), polyurethane, styrofoam and the like; or plastic such as plate, tray, bowl, cup, glass, spoon. fork, straw, knives, stirrer etc. of any size and shape.

(iii) Single-use food packaging containers made up of recycled plastics of any size, shape, thickness and colour used to cover, carry, store food/liquid items.

Note: Compostable plastics shall confirm to the Indian Standard: IS 17088:2008. The manufacturers or seller of bio-compostable plastic carry bags shall obtain a certificate from the Central Pollution Control Board before marketing or selling.

(b) No person shall knowingly or otherwise, litter any public place with any plastic item allowed under this notification.

Table 4: Action 1 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Compulsory reusable crockery and cutlery	RNN	Initiate a joint meeting on the said topic and release the key decisions and 'Compulsory reusable crockery and cutlery' notification in print media as well as RNN website.	Short Term
		To monitor the implementation and levy suitable penalty as per latest notifications	
	Civic bodies such as religious places like temple, Dharamsala's, caterers, restaurants & hotels, etc.	Adopt and promote reusable crockery and cutlery' in day-to-day operations and events	Short term
Rishikesh's function as a role model	RNN	Declare public areas and offices as 'SUP free zone' in a phased manner.	Short term
		Set exemplary practices by adopting SUP alternatives in office premises and events	
	RNN Office, schools and ghats in RNN boundary	Install display boards for all notified "SUP free zone"	Short term
	All other public areas and offices not mentioned above.	Install display boards for all notified "SUP free zone"	Medium term
Plastic carry bag provision and usage	RNN	Issue notice to the relevant establishments suggesting surrender of the banned plastic without attracting fine for a specified time frame.	Short term
		Bi-weekly fines and challans drives led by Sanitary Inspectors after the stipulated time frame.	
	Hotels and restaurant owners, shopkeepers, roadside vendors, etc.	Adopt and promote reusable cutlery and packaging within their premises.	Medium term
	Individuals	To use and carry cloth/jute bags, steel/ reusable water bottles.	Short term
		Pack food in reusable containers. Use steel/ reusable straws, wood based toothbrush.	Medium term
	Suppliers and sellers of the SUP material	Stock, sale and promote reusable and ecofriendly packaging and bags.	Medium term

4.1.2. Action 2: Reduce plastic waste entering the environment

Various activities are already being implemented in Rishikesh in order to reduce the entry of plastic into the environment. As per the baseline assessment report, littering is one of the main sources of plastics entering the environment. Individual measures have not yet had the desired effect, which is why the RNN has developed a five-pillar system, in order to address the issue of littering in a structured manner. The five pillars include awareness-raising, school engagement, clean-ups, green events and the inclusion of the commercial sector.

4.1.2.1. Awareness raising and public participation

In line with the Uttarakhand Plastic Waste Management Action Plan, 2019, the RNN is mandated to ensure public participation by consistent mass awareness campaigns. So far, the population of Rishikesh or individual target groups, such as school children or shopkeepers, have been informed about a variety of aspects related to sustainable plastic waste management, including plastic waste prevention.

- Clean-up drives
- Street plays at public places
- Rewarding citizen with waste champion award
- Rewarding waste workers with waste champion award
- Segregation demonstration at Temples on religious feast events
- Educational Sessions on plastic waste management with school students
- Daily interaction of Households with a community mobiliser who walks with the waste collecting vehicles
- City level WhatsApp groups of active citizens with Sanitary Inspectors as admins. These groups will also have 'young warriors' i.e., the self-motivated active youth of town.
- Annual 'Swachh Ward Rankings' under the ambit of Swachh Survekshan
- Annual selection of 'Brand Ambassador' from citizens
- Promotion of citizen stories on social media handles of the Municipal Corporation through 'Meri Green Kahani' campaign.

The general awareness-raising campaigns are to be strengthened through the development of an Awareness Campaign Plan for the city of Rishikesh, which shall ensure a continuity and coherence in planned awareness activities. In this action plan, awareness raising activities and public participation campaigns targeting plastic prevention and plastic waste littering are to be formulated in a target group-specific way.

The four key target groups of the Awareness Campaign Plan (ACP) are:

1. Community leaders: Community leaders have a prominent place among society and their involvement in awareness activities ensures a broad outreach;
2. Children and teachers: Organisations such as the National Service Scheme (NSS), Youth Associations, Young Aviral Club will be involved and waste management shall be included as curriculum in schools, as this ensures outreach as well as sustainability and scale-up. One such example has been introduced through the GIZ Ganga Toolbox (Annex I);
3. Tourist guides: Their role to generate awareness about segregation and littering among tourists can be crucial;
4. Ward level committees: Reactivation of ward level waste management committee including Waste Champions.

In addition to this, the ACP will contain IEC material, including information for the population, tourists and commercial establishments. Few IEC examples, which were developed by the RNN with support by the Aviral project can be found in Annex III. Exemplary identified IEC areas and activities include the following:

- Consequences of plastic waste littering for cows and other animals: While cows are revered, they also end up ingesting plastic due to biodegradable waste being mixed with other waste streams. Therefore, there is a requirement to create awareness on the consequences of throwing food waste in plastic bags in order to protect the cows and other animals such as pigs and dogs in Rishikesh.
- Other impactful IEC activities include street plays (nukkad nataks) and wall paintings. Visual cleanliness and wall paintings encourage tourists to stop littering.

4.1.2.2. Clean-Ups

- **City cleaning**

The city cleaning endeavors to keep the city as clean as possible. Experience shows that there is less litter in clean places than in places that are already contaminated. Accordingly, the cleaning capacity was adapted to the increased volume of waste and additional waste bins (e.g., litter bins) were set-up at hotspots. One other example is the RNN initiative of litter-free Triveni Ghat (see Annex V).

Triveni ghat is one of the prominent tourists point in the municipal corporation area where people take holy dips in the Ganga and attend Ganga Aarti every morning and evening. Looking at the importance of the place, project Aviral developed the concept of a "litter free Triveni ghat", which was well accepted by the citizens. Furthering this concept, training and capacity building of the vendors at the ghat who sell SUP for different activities in ghats have been conducted by RNN confirming to the amendments of Plastic Waste Management Rules 2016. As of now, the RNN has established a committee for monitoring the same to sustain the initiative.

- **Clean-ups**

In response to the Uttarakhand Plastic Waste Management Action Plan, 2019, the RNN organizes thematic drives on cleanliness and litter free city in coordination with all stakeholders and community members. The RNN provides cleaning material, such as grippers and vests etc. to private waste collection volunteer groups and school students and provide them with organizational support if necessary.

Every September, the RNN, in collaboration with door-to-door waste collection service provider, schools and other agencies working in the city on environmental issues, takes part in the World Cleanup Day, on which a wide variety of groups come together to collect waste from the environment. The clean-up drives are reoccurring events in Rishikesh. Apart from the World Cleanup Day, the citizens also take part in cleanups on various other important days, festivals and holidays.

4.1.2.3. Green events

The Municipal Corporation has already adopted the Guidelines for Management of Waste at Public Events (Annex II) which were developed in the project Aviral project and will promote following green events:

- Zero Waste Events' such as Zero Waste wedding, Zero Waste religious functions etc. under the guidance of the Sanitary Inspector and Ward Councillor;
- Annual Swachh Innovative Technology Challenge;
- Annual 'Waste to Art' exhibition hosted by Municipal Corporation;
- SUP free National Holiday Celebrations (Independence Day, Republic Day and Gandhi Jayanti) in the municipal limits.

4.1.2.4. Cooperation with commercial establishments

The RNN proposes to set-up a reoccurring series of dialogues, the Rishikesh Litter Dialogue, between the commercial sector, including but not limited to representatives of shops, hotels, restaurants and commercial offices and the RNN in order to discuss, develop and implement measures and innovative approaches against littering.

Table 5: Action 2 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Awareness raising and public participation	RNN	Develop target-specific Awareness Campaign Plan (ACP), including IEC material for the city of Rishikesh, focusing on four key target groups, namely community leaders, students and teachers, tourist guides and ward level committees.	Short term (Swachh Survekshan 2023 should be set as target for this ACP so that it reflects in the improved rankings of RNN.)
		Reward and recognition of exemplary work done by municipal staff and other stakeholders such as schools, waste workers, youth groups etc.	
	NGOs, NSS, schools, colleges & other govt. & private institutions, etc.	Contribute to and adopt the ACP. Act as a working extension of RNN for awareness and IEC activities in the city	Short term (Swachh Survekshan 2023 should be set as target for this ACP so that it reflects in the improved rankings of RNN.)
	Citizens including volunteer group, youth club, waste champions under the leadership of elected representatives in collaboration with spiritual/religious leaders.	Lead and act as "flag bearers" of awareness and messaging to ensure positive sustained behavior change	Short term (Swachh Survekshan 2023 should be set as target for this ACP so that it reflects in the improved rankings of RNN.)
Clean-Ups	RNN	Display a cleanup calendar on RNN website including important dates, festivals and holidays.	Short term
		Provide infrastructure support to citizen groups organizing cleanup activities	Short term
	Citizens including volunteer group, youth club, waste champions, other NGOs, NSS, schools, colleges & other govt. & private institutions etc.	Collaborate with RNN in organizing cleanups on important dates, festivals and holidays.	Medium term

Measure	Stakeholder	Role & Next Steps	Timeline
Green events	RNN	Adopt and publish the 'Guidelines on Waste Management at Public Events'	Short term
		Provide infrastructure support to citizen groups and institutions adopting and implementing the 'Guidelines on Waste Management at Public Events'	Short term
	Citizens, Religious places like temples, dharamshala's, religious leaders, event planners, restaurants, hotels, other government offices etc.	Adopt, implement, promote green events through 'Guidelines on Waste Management at Public Events'	Medium term
		Pay required fee in lieu of infrastructure support provided by RNN for managing the waste at the event.	
Cooperation with commercial establishments	RNN	Develop a brief to outline the purpose of the cooperation.	Short term
		Initiate a reoccurring series of dialogues, the Rishikesh Litter Dialogue, to discuss, develop and implement measures and innovative approaches against littering.	Medium term
		Sustain 'Litter free Triveni Ghat'	Long term
	All commercial establishments including temporary setups at ghats and tourist locations.	Promote use of twin dustbins and segregation at source amongst the customers	Short term
		Maintain at least two bins for Dry and Wet waste within the premises/proximity of the establishment.	Long term
		Install 'Litter free zone' IEC and boards within the premises/ proximity of the establishment.	Short term

4.2. Strategy 2 for Plastic Waste Reuse

To repeatedly use products and components for the same purpose for which they were conceived, there needs to be a market for reused goods. Therefore, an enabling policy framework for reuse includes mechanisms that encourage reuse as such and encourage markets for reused goods.

The introduction of certification for reused goods can support a functional reused goods market. In addition, it is essential to create consumer awareness.

4.2.1. Action 3: Support Reuse

4.2.1.1. Rishikesh Reuse Dialogues

The RNN proposes to set-up Rishikesh Reuse Dialogues, between Rishikesh's catering stakeholders and the RNN in order to discuss, develop and implement measures and innovative reuse approaches. The introduction of a take-back systems and/or multiple-use systems of take-away products are discussed.

4.2.1.2. Reuse IEC material

The RNN aims to develop Reuse IEC material in order to approach the broader public with relevant reuse approaches.

Table 6: Action 3 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Rishikesh Reuse Dialogues	RNN	Develop a brief including objective and roadmap to then select catering stakeholders	Medium term
		Initiate the dialogue with selected catering stakeholders	Medium term
	Selected catering stakeholders	Participate and support RNN in Rishikesh Reuse Dialogues by discussing the practical constraints and arriving at a negotiated strategy.	Medium term
Reuse IEC material	RNN	Develop reuse-specific IEC materials, both digital and physical to introduce this system amongst the citizens	Short term

4.3. Strategy 3 for Plastic Waste Processing

In the area of plastic waste processing, a number of measures have been identified in order to address the different steps, from source segregation to collection and processing.

4.3.1. Action 4: Implementation of source segregation

The Solid Waste Management Rules, 2016, have made source segregation mandatory. Source segregation has a high priority, especially when considering any form of further waste treatment options.

In the recent past, the RNN has taken measures in order to increase the source segregation rate in its jurisdiction. The distribution of approximately 50,000 bins in certain wards such as ward 12 has helped in segregation of waste at source. Also, to reward the work done by citizens on waste segregation RNN has also purchased & modified the vehicles having facility to collect & transport segregated waste for proper disposal.

4.3.1.1. Information for waste generators and the commercial sector

Every household receives an annual waste calendar, which shall describe the way each waste fraction shall be segregated, collected and disposed of. It shall also inform the waste generator on the journey each waste fraction will take within Rishikesh's waste management system in order to create transparency and understanding of the importance of waste segregation.

In addition to this the RNN requires commercial establishments including bulk waste generators (>100 kg/day) to develop a concept for the management of their generated plastic waste. This plastic waste concept is discussed with the responsible person of the respective establishment and possibilities for plastic waste prevention, recycling and plastic waste disposal are highlighted.

4.3.1.2. Set-up of buy-back system in cooperation with commercial sector

The implementation of a buy-back system for plastic waste is considered as a measure to encourage segregation at source. A barter system like "Plastic lao Khana Pao" [Bring plastic get food], "Plastic lao Thaila Pao" [Bring plastic get bag] etc. shall encourage the segregation of waste.

Table 7: Action 4 - Roles & Responsibilities

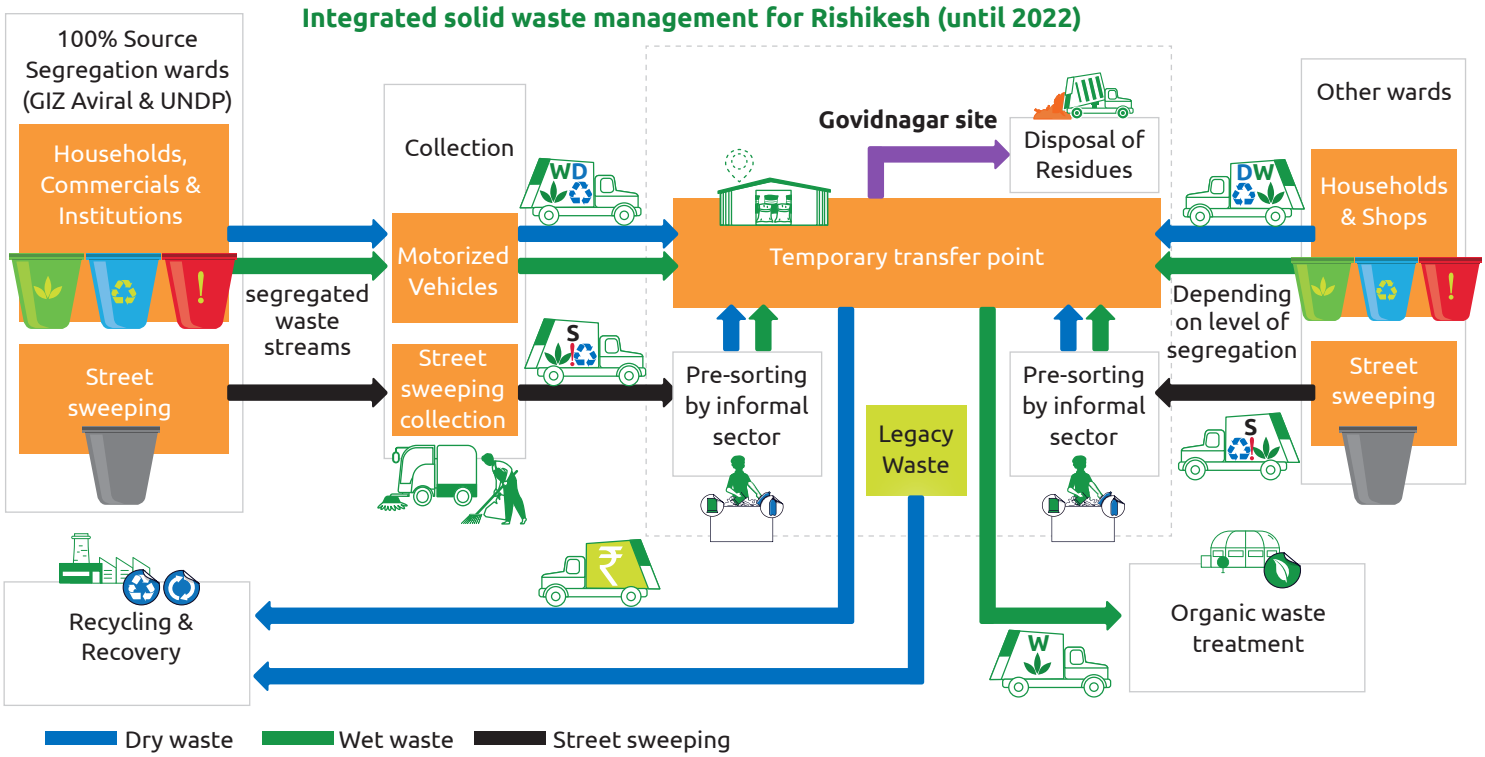
Measure	Stakeholder	Role & Next Steps	Timeline
Information for waste generators and the commercial sector	RNN, bulk waste generators	Develop IEC material templates, both digital and physical to introduce this system amongst the citizens	Medium term (Swachh Survekshan 2023 should be set as target for this so that it reflects in the improved rankings of RNN.)
Set-up of buy-back system in cooperation with commercial establishments	RNN	Plan the logistics and designate vehicles, routes and timings.	Medium term
		Fixing the cost sharing mechanism of such a system	Medium term
	Market associations and shopkeepers	Co- develop the cost sharing mechanism with RNN	Medium term
	RNN, NGOs and international agencies such as UNDP, GIZ etc. (through their projects).	Organize workshops for Market associations and shopkeepers.	Medium term
	Door to Door Waste collection agency	Co-plan the logistics and designate vehicles, routes and timings.	Medium term
		Carefully handle the segregated waste received through this barter/buyback system and deliver to operator at Lal pani/specified by RNN.	Medium term

4.3.2. Action 5: Implementation of collection and transportation of segregated waste

A collection and transportation system that allows the segregation of waste in multiple waste streams is one of the key requisites when it comes to an efficient and effective sustainable plastic waste management system. The five following measures have been identified.

4.3.2.1. Rishikesh Collection and Transportation Plan

Present: RNN has hired an agency for providing 100% door to door waste collection services in the municipal area with 40 wards. In the morning the service providing agency use to collect waste from households and commercial establishments of all wards. Afterwards, they transport the waste to Govind Nagar trenching ground via tractors and tippers where the weight of collected waste is measured via an electronic weigh bridge. The service provider gets their tipping fee based on the collected tonnage. A proper scientific processing facility is not available, although a temporary manual sorting point is operated there by UNDP. The processing of legacy waste at the trenching ground is ongoing by M/s Rollz India, however, fresh waste is continued to be dumped over there on daily basis, which will continue until new processing facility is operational.

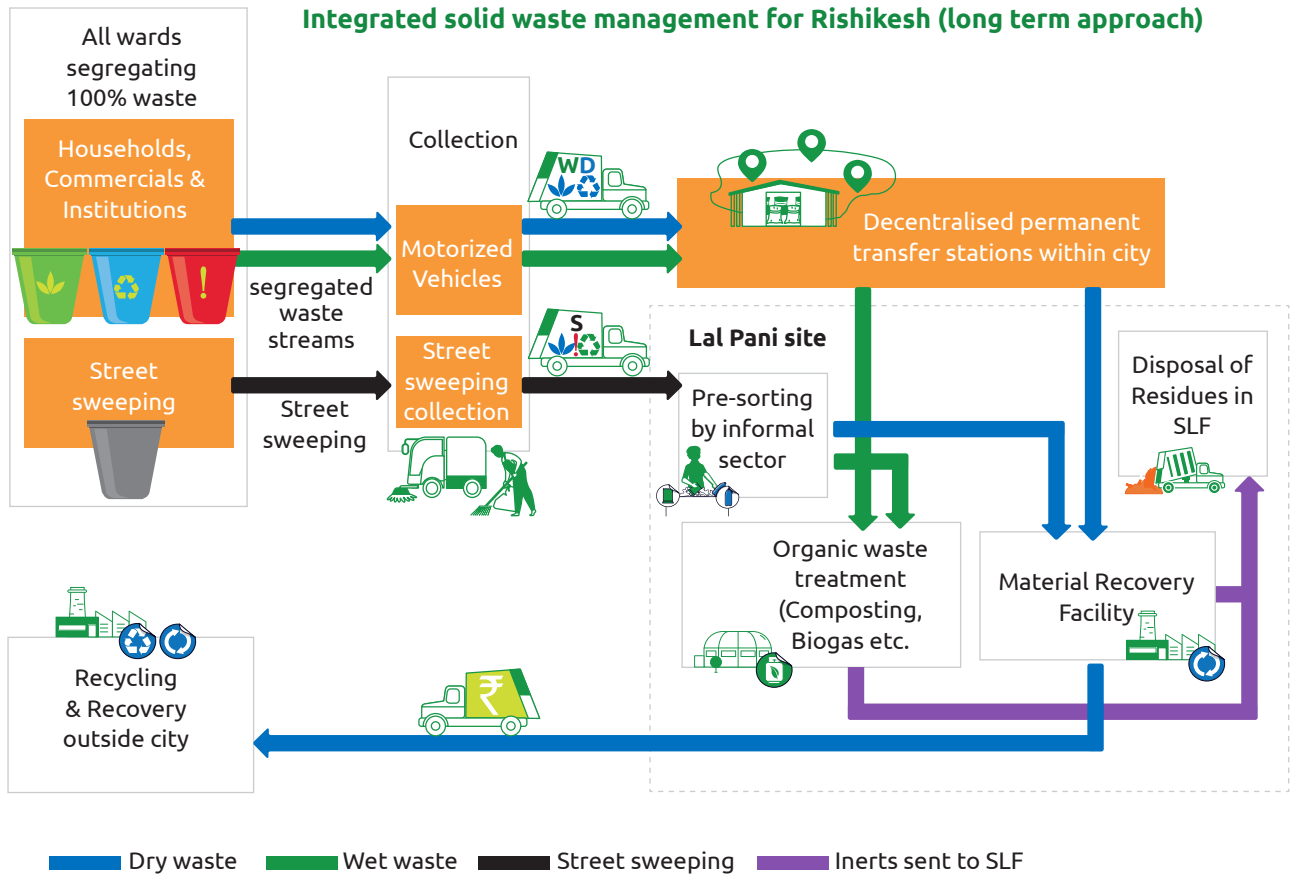


Note: A seperate collection, transportation and processing of domestic hazardous waste will be additionally implemented

Figure 5: ISWM Rishikesh (until 2022)

Way forward: Recently RNN has allocated 10 Ha of land for waste management purposes. A tender has been floated already to come up with the proposal of suitable technology. It will also facilitate the processing of inert waste for the municipality cluster, including the urban local bodies of Doiwala, Swargashram, Muni Ki Reti & Narendra Nagar. At present, the selection of vendor for the same is under process for design-build-operate model. After the facility starts operating, waste collected from households and other sources will be transported in segregated form to Lal Pani facility instead of Govind Nagar trenching ground. RNN is also working towards digitalization of the entire waste management process. Most of the vehicles have been fitted with GPS system and a GIS based monitoring system will be set up.

RNN will lay special focus on source segregation during and beyond the horizon year of this Action Plan. Action 4 specifically deals with this and is supported by Action 2 and Action 3.



Note: A seperate collection, transportation and processing of domestic hazardous waste will be additionally implemented

Figure 6: ISWM Rishikesh (long term)

4.3.2.2. User fee collection

As per SWM Rules 2016, Clause 4 (3) lays out payment of user fees as a mandatory duty of the waste generator as per the respective city byelaws. The SWM Manual 2016 also says that collection and reinvestment of user charges will ensure financial viability of Municipal Solid Waste Management projects and infrastructure. These are explicitly mentioned in the Annexure 1 of the Nagar Nigam Rishikesh Solid Waste Management byelaws 2019. The relevant portions of the byelaws have been attached as Annex IV of this Action Plan.

4.3.2.3. Capacity Building Plan

The RNN is to develop a Capacity Building Plan (CBP) to provide training at all levels of plastic waste management. The CBP will be structured along the plastic waste value chain. One key element will be the training of drivers and helpers in the collection system as this is critical to ensure that waste is collected in a segregated manner and waste is not mixed in the landfill area while tipping. These capacity building targets shall be achieved by the funding available under Centrally Sponsored Schemes such as Swachh Bharat Mission 2.0, Namami Gange 2.0 and AMRUT 2.0. Apart from this the door-to-door waste collection agency and the operator of the Lal Pani waste management facility will also support this. External agencies such as GIZ, UNDP and NGOs which are willing to support the trainings financially and technically shall be welcomed.

This capacity development plan should highlight a Nodal officer as a single point of contact for any training and capacity building needs. Use of Nagar Nigam Sabhagaar and adherence to the guidelines for management of waste at public events shall be promoted so that the trainings/ workshops are Zero Waste Trainings/Workshops.

The training could be segregated based on the participants, i.e.

- Mandatory training of the officers above the rank of/and equal to Sanitary Inspectors + City Mission Management Unit, AMRUT and SBM within 2 months of release of this Action Plan
- Mandatory Training of all the Ward Councilors within 3 months
- Monthly Training of 50 officials at rank of Sanitary Supervisors and below starting the third month of release of this PWMAP.

4.3.2.4. Waste management during events

In response to the Uttarakhand Plastic Waste Management Action Plan, 2019 and with support of project Aviral, the RNN has developed the guidelines for management of waste at public events, which specifies waste management processes during the time of public events of all types.

4.3.2.5. Integration of informal waste workers in collection processes

As per the State PWMAP, ULBs are obliged to establish a system for recognizing organizations of waste pickers and scrap dealers and promote & establish a system for integration of these waste collectors in organized systems of door-to-door collection. The RNN proposes to establish a knowledge exchange and support framework for informal workers in Rishikesh as well as waste management company representatives, in order to discuss and act upon following measures:

- Consideration of sharing of revenue of material collected and MRF being an intermediate destination for dry waste (especially low value);
- Encourage the association with the MRF by support to provision of insurance, children's education, better working conditions among others.
- Provision of an identity card.
- Support to access to government schemes such as health schemes, loans, education etc.
- Consideration of introduction of regular monthly income. This will encourage and help in mainstreaming them in waste management initiatives anchored by the municipal corporation and supported by various government programs, funded projects like Aviral.

Local non-profit organisations such as Udaan that work with children, are considered as potential partners for activities such as education of children of informal workers.

Table 8: Action 5 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Rishikesh Collection and Transportation (C&T) plan	RNN, operator at Lal Pani cluster level integrated waste management facility and Door to Door waste collection agency	Develop a draft Collection and Transportation Plan in consultation with the appropriate stakeholder	Short term
		Develop an online waste collection vehicle monitoring and tracking system	Short term
	RWAs, Market Associations	Provide inputs on timings, agree to and abide by the final C&T plan	Medium term
User fee collection	RNN and Door to Door waste collection agency	Develop a monitoring mechanism to implement the user fee collection.	Short term
		Define guiding targets for increase in User charge collection year on year	Short term

Measure	Stakeholder	Role & Next Steps	Timeline
Capacity development plan	RNN	Develop a Capacity Building Plan to provide training at all levels of plastic waste management. The SBM 2.0, Namami Gange and AMRUT 2.0 trainings and courses should be taken every year.	Short term
		Nominate a Nodal officer as a single point of contact for any training and capacity building needs.	Short term
Waste management during events	RNN	Notification and launch of the Guidelines for management of waste at public events.	Short term
		Designating concerned officers through an office order as single point of contact for anyone who seeks support of RNN in organizing zero waste events	Short term
		Support the citizen groups with infrastructure to organize and manage waste during events	Short term
	D2D agency/any other agency brought via process of bidding for the same	Support the citizen groups with infrastructure to organize and manage waste during events	Short term
	Citizens including volunteer group, youth club, waste champions, other NGOs, NSS, schools, colleges & other govt. & private institutions etc.	Pay designated fee in lieu of waste management infrastructure support by RNN	Short term
Integration of informal waste workers in collection processes	RNN	Nominate a Nodal officer as a single point of contact for informal waste worker integration purposes Establish a knowledge exchange and support framework for informal workers in Rishikesh as well as waste management company representatives	Short term

4.3.3. Action 6: Support Local Sorting and Processing Infrastructure

Rishikesh's local sorting and processing infrastructure has improved over the past couple of years. One of the key cornerstones in this regard is the current development of Lal Pani. The aspect of innovation when considering plastic waste, has also been addressed in the recent years, and it is essential to build upon this experience in order to expand Rishikesh's local sorting and processing infrastructure.

4.3.3.1. Planning of Lal Pani

Lal Pani is the part of Rishikesh Municipal corporation area which used to come under forest department earlier. On February 2022, RNN allocated 10 Ha of land in the Lal Pani area to be utilized for waste management activities. It is situated at a distance of 12 km to the RNN office and city center.

The RNN has already floated a tender for the selection of vendor/contractor to propose a technology for the processing of waste generated in the city on design-build-operate model for the timeline of 15 years. The facility would be also capable of processing inert waste of neighboring ULBs of Swargashram, Doiwala, Muni Ki Reti & Narendranagar. The maximum capacity of the processing unit will be 240 tonnes/day which will initially start with 80 tonnes/day processing. However, the technology for processing is not known until the contractor is selected.

4.3.3.2. Rethinking plastic waste and support to innovation

Swachh Bharat Mission-Urban 2.0 (SBM-U 2.0), under the aegis of the Ministry of Housing and Urban Affairs (MoHUA), launched the Swachh Technology Challenge in 2021. The Challenge seeks to harness the entrepreneurial potential of the waste management sector in India and promote an enabling environment for enterprise development under Swachh Bharat Mission-Urban 2.0. In line with Hon'ble Prime Minister's clarion call for an "Atmanirbhar Bharat", there is a need for identifying indigenous, cost-effective technologies that are easy to replicate and scale-up, and can be put to use by ULBs to implement various components of SBM-U 2.0 on the ground.

RNN too believes that new age problems such as increasing types and quantities of solid wastes need new age and tailormade solutions. Along with the Aviral team, RNN had already launched a similar challenge with the name 'Plastic Waste Innovation Grand Challenge' wherein applications were invited for two categories – track 1 is to create added value and improve plastic waste value chain and track 2 to develop a solution pertaining to plastic waste from the tourist population. RNN received a total of 94 applications from various startups, non-government organizations and private companies, most of them are highly appreciated by Indian and international startup awards and recognitions. A technical committee was setup which critically evaluated all the applications on various parameters like technology readiness, business plans and sustainability aspects etc. and shortlisted a winner.

The winner received a grant of Euro 50,000 from the Project Aviral to establish their business in/nearby Rishikesh and work with the waste generated from the city. A compendium of these innovative ideas was also developed by project Aviral and made available in public domain.

RNN will now widen the scope of this plastic waste grand innovation challenge to align it with SBM-U 2.0 guidelines and make it an annual event. RNN will also try to partner with external non-governmental national and international al agencies such as GIZ, UNDP, AFD etc. to assure funding and grants for the startups and innovations. This will add additional working hands for Rishikesh's waste management problem.

Table 9: Action 6 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Planning of Lal Pani	RNN	Coordinate with the cluster ULBs for efficient input of waste to Lal Pani integrated waste management facility	Medium term
Rethinking plastic waste and support to innovation	RNN	Use the annual swachh innovation challenge guidelines mentioned in SBM 2.0 or GIZ Aviral plastic waste grand innovation challenge framework	Medium term (Swachh Survekshan 2023 should be set as target for this so that it reflects in the improved rankings of RNN.)
		Support the winners of the innovation challenge and other startups that voluntarily approach RNN with necessary permissions and pilot projects	Medium term (Swachh Survekshan 2023 should be set as target for this so that it reflects in the improved rankings of RNN.)

4.3.4. Action 7: Support to plastic waste recovery

4.3.4.1. Clearing up the legacy waste at Govind Nagar dumpsite

RNN has already initiated the process of clearing up the Govind Nagar dumpsite (see Annex VI) This work is being carried out by an agency, M/s Rollz India Waste Management Pvt Ltd.

The output of this legacy waste clearing process will be Refuse Derived Fuel (RDF), combustible waste, Multi-Layer Plastic (MLP), non-MLP plastic, rigid plastic, and flexible plastic. These wastes will be sent for final disposal to government approved cement kilns, waste to energy facilities, and registered recyclers.

4.3.4.2. Use of MLP and Low Value Plastic (LVP)

RNN supports start-ups and innovations to tackle the problem of residual plastic waste especially the low value plastic waste. This is a section of waste remains largely uncollected and littered into the environment, as its collection and transportation are uneconomical even for the informal waste management sector. The Rishikesh Baseline Assessment Report 2020 also highlighted this issue. This formed the main problem statement of the Plastic Waste Innovation Grand Challenge. The winner of this challenge M/s Trashcon Pvt Ltd proposed to produce their proprietary WoW boards which function similar to the traditional ply boards. The appropriate MLP and LVP could be recovered from the streets and legacy waste and converted into such boards. The use of these boards is limitless.

Table 10: Action 7 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Clearing up legacy waste at Govind Nagar dumpsite	RNN	Target based monitoring of clearing up the Govind Nagar dumpsite by M/s Rollz India Management Pvt Ltd	Medium term
		Develop a target based monitoring frame to assess the progress	Short term
	M/s Rollz India Waste Management Pvt Ltd. and any other agency related to the process	Develop roadmap for sending the waste for final disposal to government approved cement kilns, waste to energy facilities, and registered recyclers and submit to RNN with updated timelines	Short term
Use of MLP and LVP	RNN	Support M/s Trashcon Pvt Ltd and any other agency related to the process by providing them plastic waste.	Short term
	M/s Trashcon Pvt Ltd and any other agency related to the process	Scale-up the innovative solution of by assessing the market for the boards and establishing market connect to introduce the product.	Long term
		Support RNN by accepting the waste provided by RNN and showcasing use of recycled/ upcycled products for public use in Rishikesh.	Medium term

4.4. Strategy 4 for Scientific Plastic Waste Disposal

Disposal is the least preferred stage of the waste hierarchy. The improper disposal of plastic waste constitutes a problem as it can result in serious environment and health risks as well as social justice concerns. Scientific landfilling is therefore a key element when improving an existing plastic waste management system.

4.4.1. Action 8: Support to scientific disposal

A cluster level integrated waste processing and disposal facility at Lal Pani is being setup by the RNN. This facility shall have a scientific landfill site as well. The other ULBs part of this cluster facility shall also dispose their inert waste in this landfill.

Table 11: Action 8 - Roles & Responsibilities

Measure	Stakeholder	Role & Next Steps	Timeline
Support to scientific disposal	RNN	Lead the coordination with other ULBs of the cluster for management of flow of inerts to the landfill.	Long term
	D2D service agency, Processing agency/ selected contractor for Lal Pani facility	Adhere to the government norms for disposal of waste since the Lal Pani site is in a forest area.	Long term

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5. Monitoring

5.1. Tracking and Monitoring Progress

The backbone of this action plan is the monitoring process. A rigorous monitoring structure will lead to achievement of all actions and intended goals. RNN is committed to utilize its resources optimally to make Rishikesh a 'Plastic Litter Free Rishikesh'.

5.1.1. Biannual steering meetings

A steering meeting, headed by the Municipal Commissioner, every six months will add to effective monitoring and celebrating milestones in the management of plastic waste. In this steering meeting representatives of all stakeholders mentioned in respective actions shall join. Any other experts as deemed fit by the Municipal Commissioner may also be invited. The key achievements of the city through combined efforts of all the stakeholders may be published in local newspapers and reported to the Urban Development Directorate (UDD), Dehradun as well.

The minutes of this meeting shall act as guiding document complimentary to the PWMAP. These shall be required to submit the Annual report to UDD.

5.1.2. Annual reporting

The State PWMAP obliges every person engaged in recycling and processing of plastic waste to submit an annual report to the local body.

Every local body is obliged to submit an annual report to the UDD every year. The RNN will submit an annual progress report to the UDD. This report will cover the progress regarding the identified measures as well as the difficulties encountered of foreseeable and proposed corrective measures to be taken. Annual reports will form a base for the mid-term evaluation due in 2025.

5.1.3. Mid-term evaluation of PWMAP

PWMAP is a rigid yet flexible document by design. A mid-term evaluation is deemed necessary to keep the actions close to practical realities rather than a theoretical policy. Based on this evaluation, the Municipal Commissioner after consultation with relevant stakeholders, will suggest course correction, addition or modification of actions and revision of the PWMAP.

The mid-term evaluation will also highlight the successful strategies, resource intensive actions and the need to relocate focus and resources to more urgent actions based on latest notifications of Government of India, Government of Uttarakhand and board resolutions of RNN.

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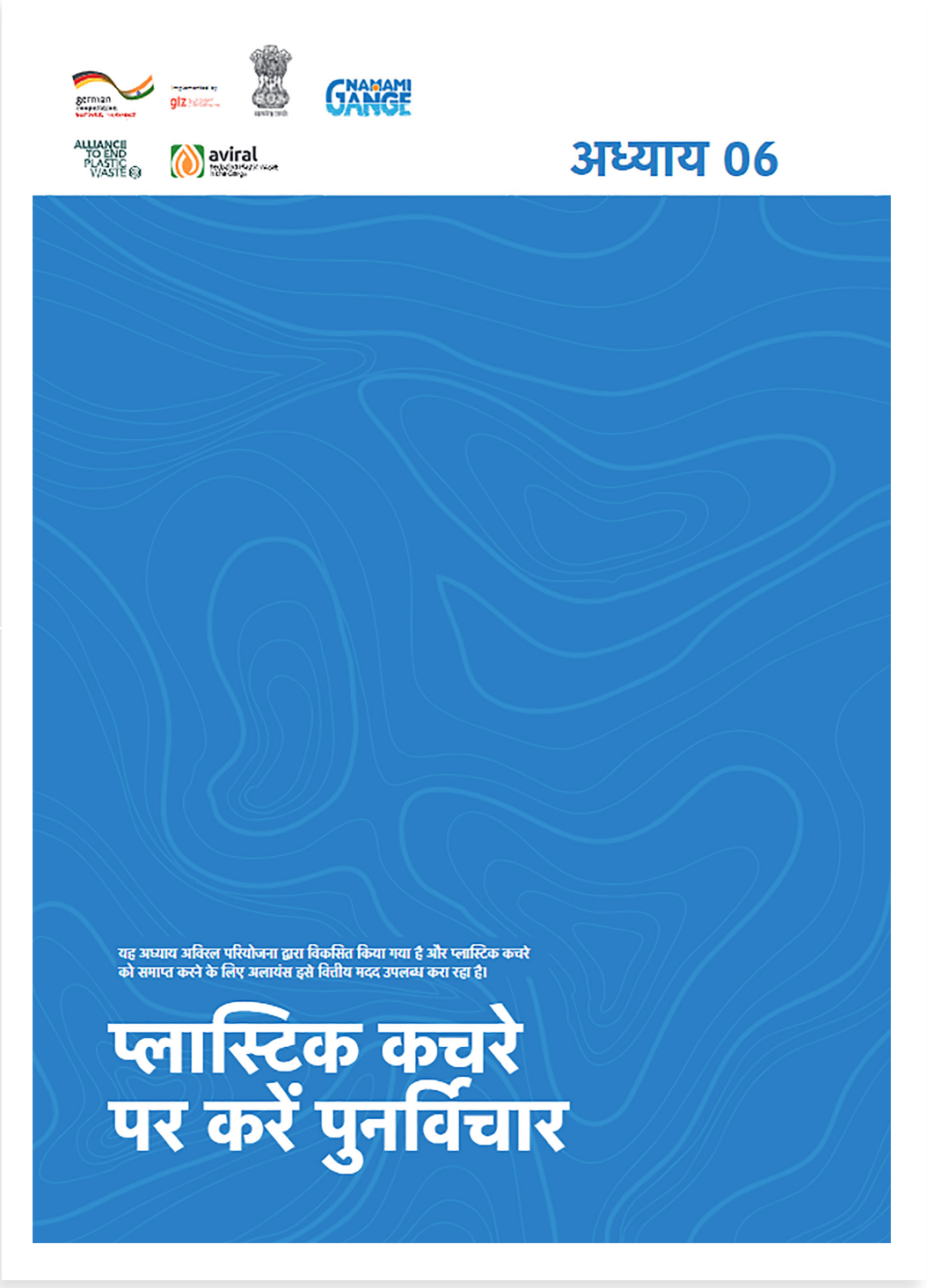
Annexures

Annex I: GIZ Ganga Toolbox



Annex II: Guidelines for Management of Waste at Public Events

अविरल
गंगा में प्लास्टिक अपशिष्ट को कम करना

सार्वजनिक आयोजनों में अपशिष्ट प्रबंधन के लिए दिशा-निर्देश

इसके द्वारा संपादित: ALLIANCE TO END PLASTIC WASTE
इसके द्वारा कार्यान्वित: giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
इसके सहयोग में: UN environment programme, SAAHAS zero waste solutions

Annex III: Sample IEC Collaterals

More of these can be accessed at Aviral Ganga - Reduce Plastic Waste in Ganga (aviralganga.in)


अविरल
गंगा में प्लास्टिक अपशिष्ट को कम करना
की ओर द्वारा: ALLIANCE TO END PLASTIC WASTE
द्वारा कार्यान्वित: giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
सहयोग द्वारा:
सफाई अभियान
माँ गंगा को स्वच्छ बनाने में हमारे साथ जुड़ें
हरिद्वार और ऋषिकेश
aviralganga.in
हम सब का एक ही नारा साफ सुथरा हो शहर हमारा !


अविरल
गंगा में प्लास्टिक अपशिष्ट को कम करना
की ओर द्वारा: ALLIANCE TO END PLASTIC WASTE
द्वारा कार्यान्वित: giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
सहयोग द्वारा:
कूड़ा दान अभियान
प्लास्टिक का सही स्थान, गंगा नही कूड़ादान
आप करे प्लास्टिक का दान, हम करेंगे उसका उचित समाधान।
हरिद्वार और ऋषिकेश
aviralganga.in


ध्यान दें, कहीं आपका कूड़ा गंगा में तो नहीं जा रहा?
तीन
बिन
प्रतिदिन
जैविक
अजैविक
घरेलु हानिकारक
अविरल
गंगा में प्लास्टिक अपशिष्ट को कम करना
स्कैन करें


अविरल
गंगा में प्लास्टिक अपशिष्ट को कम करना
यह एक न्यूनतम अपशिष्ट समारोह है। कृपया दिए गए निर्देशों का पालन करे और एक स्वच्छ एवं हरित ऋषिकेश / हरिद्वार की और कदम बढ़ाये।
Do's
अपने कचरे के लिए सही कूड़ेदान का प्रयोग करें।
खादय और जैविक कचरा
सूखा और अजैविक कचरा
मास्क, ग्लव्स, टिशू और सैनिटरी वेस्ट
पानी के लिए वाटर डिस्पेंसर का प्रयोग करें।
अपनी स्वयं की पुनःप्रयोग की जा सकने वाली वस्तुएं लायें
Dont's
कूड़े को आपस में ना मिलायें।
पानी की बोतल खरीदने से बचें।
कृपया कचरा ना फैलायें और कूड़ेदान के अलावा कहीं और कूड़ा ना डालें।

Annex IV: User Charges and Fines

(गपपप) किसी ठोस कचरा प्रोसेसिंग या उपचार या निपटान केंद्र अथवा लैंडफिल साइट पर कोई दुर्घटना होने की स्थिति में, उस केंद्र का प्रभारी अधिकारी तत्काल नगर निगम को रिपोर्ट करेगा, जो स्थिति की समीक्षा करने के बाद उस केंद्र के प्रभारी अधिकारी को आवश्यक निर्देश जारी करेगा।

(गपअ) नियमित जांच : महापौर, उपमहापौर द्वारा प्राधिकृत कोई अन्य अधिकारी वार्ड के विभिन्न भागों और ठोस कचरे के संग्रहण, ढुलाई, प्रोसेसिंग और निपटान से संबंधित अन्य स्थानों की नियमित जांच करेगा ताकि यह सुनिश्चित किया जा सके कि एसडब्ल्यूएम नियमों और इन उप–नियमों के विभिन्न प्रावधानों का पालन हो रहा है।

(गअ) नगर निगम अपने मुख्यालय में कॉल सेंटर की स्थापना के जरिए सार्वजनिक शिकायत निवारण प्रणाली (पीजीआरएस) विकसित करेगा। इस पीजीआरएस में एसएमएस आधारित सेवा, मोबाइल अप्लीकेशन अथवा वैब आधारित सेवाएं शामिल हो सकती हैं।

(गअप) नगर निगम एसडब्ल्यूएम नियमों और उप–नियमों के कार्यान्वयन से सम्बद्ध कर्मचारियों की उपस्थिकत दर्ज करने के लिए कार्ड प्रोद्योगिकियों/आईसीटी प्रणाली कायम करेगा तथा ऐसी प्रणाली को वेतन/दिहाडी/परिश्रमिक के साथ एकीकृत करने के प्रयास करेगा।

(गअपप) पारदर्शिता और सर्वाजनिक पहुच : अधिक पारदर्शिता और सार्वजनिक पहुंच सुनिश्चित करने के लिए नगर निगम अपनी वेबसाइट से सारी आवश्यक सूचनाऐ प्रदान करेगा।

(गअपपप) नगर निगम एसडब्ल्यूएम नियमों में वर्णित सभी अन्य दायित्व पूरे करेगा, जो इन उपनियमों में विशेष रुप से उल्लिखित नही किए गये हैं।

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अध्याय–10
विविध

15. इन उपनियमों की व्याख्या या कार्यान्वयन में कोई संदेह या कठिनाई आने की स्थिति में उसे महापौर, नगर निगम के समक्ष रखा जाएगा, जिसका निर्णय ऐसे मामले में अंतिम होगा।
16. सरकारी निकायों के साथ समन्वय : नगर निगम अन्य सरकारी एजेंसियों और प्राधिकरणों के साथ समन्वय करेगा, ताकि इन उपनियमों का अनुपालन ऐसे निकायों के अधिकार क्षेत्र या नियंत्रण में आने वाले इलाकों सुनिश्चित किया जा सके। कोई कठिनाई होने की स्थिति में उत्तराखण्ड सरकार के मुख्य सचिव के समक्ष विचारार्थ रखा जाएगा।
17. सक्षम प्राधिकारी ठोस कचरा प्रबंधन नियम 2016 और इन उप–नियमों के समुचित कार्यान्वयन के लिए समय समय पर सामान्य या विशेष आदेश जारी कर सकते हैं।

अनुसूची–1

ठोस कचरा प्रबंधन के लिए इस्तेमालकर्ता शुल्क

1	2	3
क्र सं	अपशिष्ट उत्पादक की श्रेणी/अपशिष्ट का प्रकार	प्रतिमाह सेवा शुल्क(यूजर चार्जेज रुपये में)
1.	गरीबी रेखा से नीचे के घर(बी.पी.एल कार्ड धारक)	कच्ची झोपडी रु 10.00, पक्का मकान रु 20.00
2.	कम आय वाले घर(बी.पी.एल कार्ड धारक के अतिरिक्त रु 5000.00 प्रतिमाह तक की आय वाले घर)	रु 40.00
3.	मध्यम आय वाले घर (रु 5000.00 से अधिक रु 10000.00 तक प्रतिमाह आय वाले घर)	रु 60.00
4.	उपरोक्त के अतिरिक्त घर	रु 100.00
5.	सब्जी एवं फल विक्रेता	ठेली पर फेरी में रु 6.00 प्रतिदिन,दुकान एवं फड पर रु 100.00 प्रतिदिन

1	2	3
6.	माँस एवं मछली विक्रेता	न्यूनतम 200.00 रु 10 कि0ग्रा0 तक,उससे अधिक पर रु 01.00 प्रति कि0ग्रा0 प्रतिदिन अतिरिक्त
7.	रेस्टोरेन्ट	छोटे रु 300.00, मध्यम रु 800.00 तथा बडे रु 2000.00
8.	होटल/लॉजिग/गेस्ट हाऊस	20 बेड तक रु 300.00, 21 बेड से 40 बेड तक रु 500.00 एवं 41 से अधिक बेड तक रु800.00
9.	धर्मशाला	रु 1.50 प्रति कमरा प्रतिमाह
10.	बरातघर(चेरिटेबिल) बरातघर(नॉन–चेरिटेबिल)	रु 500.00 प्रति उत्सव रु 1000.00 प्रति उत्सव
11.	बेकरी	रु 150.00
12.	कार्यालय	50 कर्मचारियो तक रु 200.00, 51 से 100 कर्मचारियों तक रु 400.00,101 से 300 कर्मचारियों तक रु 500.00 तथा उससे अधिक कर्मचारियों वाले कार्यालय से रु1000.00
13.	स्कूल/शिक्षण संस्थाएं(आवासीय)	100 बेड तक के लिए रु 2000.00,उससे अधिक रु 10.00 प्रति बेड अतिरिक्त
14.	स्कूल/शिक्षण संस्थाएं(अनावासीय)	500 विघार्थियो तक रु1000.00,उससे अधिक रु15000.00
15.	हॉस्पिटल/नर्सिग होम (बायोमेडिकल वेस्ट को छोडकर)	20 बेड तक रु 500, 21 बेड से 40 बेड तक रु1000.00 एवं 41 से 100 बेड तक रु 2000.00,उससे अधिक रु 25000.00
16.	क्लीनिक/पैथोलोजी	क्लीनिक रु100.00, पैथोलोजी रु 500.00
17.	दुकान/चाय की दंकान	मौहल्ले की छोटी दुकान रु 50.00, बाजार की दुकान रु 75.00, शोरुम रु 200.00, छोटे मॉल रु 1000.00,बहुमंजिला मॉल रु 2000.00, अपने मकान के कमरे में खुली छोटी दुकान निशुल्क
18.	फैक्ट्री	छोटी रु 600.00, मध्यम रु 1000.00, बडी रु 1000.00
19.	वर्कशॉप	छोटी रु 400.00,बडी रु 1000.00
20.	कबाडी	छोटी रु 200.00,बडी रु 500.00
21.	जूस/गन्ने का रस विक्रेता	रु 10.00 प्रतिदिन
22.	सार्वजनिक/निजी स्थलों पर सर्कस/प्रदर्शनी/विवाह आदि आयोजन जिनमें अपशिष्ट उत्पन्न हो	रु 600.00 होटलों में, विवाह रु 2000.00 प्रति उत्साह
23.	ढहान तथा निर्माण सम्बन्धी अपशिष्ट	0.50घन मी0 तक रु 200.00, 1.0घन मी0 तक रु 400.00, 3.0घन मी0 तक रु 1000.00, 6.0घन मी0 तक रु 2000.00,इससे अधिक प्रतिघन मी0 रु 200.00 अधिक
24.	सिनेमा हॉल	रु 600.00 प्रतिमाह
25.	उपरोक्त के अतिरिक्त अन्य(प्रतिस्थान की स्थिति के अनुसार)	रु 200.00 से रु 2000.00 तक

इस्तेमालकर्ता शुल्क/प्रभार का भुगतान मांग जारी होने से 30 दिन के भीतर न किए जाने की स्थिति में इस्तेमालकर्ता शुल्क/प्रभार पर 10 प्रतिशत की दर से विलंम भुगतान/प्रभार (एलपीएससी) लगाया जाएगा।

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अनुसूची–2
जुर्माना / दंड

क्र. सं.	नियम / उप नियम संख्या	अपराध	निम्नांकित पर लागू	प्रत्येक चूक के लिए जुर्माना (रुपये में)
1.	एसडब्ल्यूएम नियमों का नियम 4(1)(क)	कचरे को पृथक करने और संग्रह करने तथा पृथक्कृत कचरे को इन नियमों के अनुसार सौपने में विफल रहना	आवासीय बल्क जनरेटर	200 500
			5000 मीटर से कम क्षेत्र वाले विवाह / पार्टी हाल, फेस्टिवल हाल, पार्टी लान, प्रदर्शनी और मेले स्थल	10,000
			5000 मीटर से कम क्षेत्र वाले क्लबों, सिनेमाघरों, पब्स, सामुदायिक हॉल, मल्टीप्लेक्सेज और अन्य ऐसे स्थान	5000
			5000 मीटर से कम क्षेत्र वाले अन्य गैर–आवासीय स्थान	500
			फिस,मीट विकेता द्वारा कूडे को पृथ्थकरण तरीके से न रखना	500
	एसडब्ल्यूएम नियमों का नियम 4(2)	सडक / गली में 1.कूडा फैकना,थूकना 2. नहाना, पेशाब करना, जानवरो को चारा खिलाना, कपडे धोना, वाहन धोना, गोबर नाली में बहाना	उल्घनकर्ता	200 से 500 एवं कार्यवाही उत्तराखण्ड कूडा फेकना एवं थूकना प्रतिषेध अधिनियम 2016 के अन्तर्गत होगी। 500
2.	एसडब्ल्यूएम नियमों का नियम 4(1)(ख) और (घ)	नियमानुसार सेनिटरी कचरे का निपटान करने में विफल रहना। नियम के अनुसार बागवानी और उद्यान कचरे के निपटान में विफल रहना।	आवासीय	200
			गैर–आवासीय / बल्क जनरेटर	500
3.	एसडब्ल्यूएम नियमों का नियम 4(1)(ग)	नियम के अनुसार निर्माण और विध्वंस कचरे के निपटान में विफल रहना।	आवासीय	1000
			गैर–आवासीय / बल्क जनरेटर	5000
4.	एसडब्ल्यूएम नियमों का नियम 4(2), 15(ट).	ठोस कचरे को खुले में जलाना	उल्लंघनकर्ता	5000
5.	एसडब्ल्यूएम नियमों का नियम 4(4)	निर्धारित प्रक्रिया का अनुपालन किए बिना किसी गैर लाइसेंसीकृत स्थल पर 100 व्यक्तियों से अधिक की भागीदारी के साथ कार्यक्रम या सभा का आयोजन करना	ऐसा कार्यक्रम या सभा आयोजित करने वाले व्यक्ति अथवा ऐसा व्यक्ति जिसकी ओर से ऐसा कार्यक्रम या सभा आयोजित की गई हो और इवेंट मैनेजर यदि कोई हो, जिसने कार्यक्रम या सभा आयोजित की हो	10,000
6.	एसडब्ल्यूएम नियमों का नियम 4(5)	नियम के अनुसार कचरे का निपटान करने में विफल रहने वाले गली विक्रेता / वेन्डर कूडादान न रखने एवं कूडे को पृथ्थकरण न करने,अपशिष्ट भण्डारन डिपो या पात्र या वाहन में डालने में विफल रहने पर	उल्लंघनकर्ता	200
7.	एसडब्ल्यूएम नियमों का नियम 4(2), 15(छ)	सार्वजनिक स्थलो, सडको, गलियों आदि में गंदगी फैलाना / कुत्ते / अन्य जानवरो द्वारा मल त्याग / उत्सर्जित कचरे के निपटान में विफलता	अपराधी	500
निम्नांकित उल्लंघनों के लिए महीने में केवल एक बार जुर्माना लगाया जाएगा				
8.	एसडब्ल्यूएम नियमों का नियम 4(6)	नियमों के अनुसार कचरे का निपटान में विफलता	निवासी कल्याण एसोसिएशन, आर.डब्ल्यू.ए	10,000

8. | एसडब्ल्यूएम नियमों का नियम 4(6) | विफलता

			बजार एसोसिएशन संघ	20,000
9	एसडब्ल्यूएम नियमों का नियम 4(7)	नियमों के अनुसार कचरे का निपटान में विफलता	द्वारबंद समुदाय	10,000
			संस्थान	20,000
10.	एसडब्ल्यूएम नियमों का नियम 4(8)	नियमों के अनुसार कचरे का निपटान में विफलता	होटल	50,000
			रेस्टोरेंट	20,000
11.	एसडब्ल्यूएम नियमों का नियम 17(2)	उत्पादन के कारण सृजित पैकेजिंग कचरे को वापस लेने की प्रणाली कायम किये बिना डिस्पोजल उत्पादों की बिक्री अथवा विपणन	विनिर्माता और/या ब्रॉड ओनर/स्वामी	1,00,000
12	एसडब्ल्यूएम नियमों का नियम 17(3)	नियमों के अनुसार उपाय करने में विफलता	विनिर्माता और ब्रॉड स्वामी और विपणन कुपनियां	50,000
13	एसडब्ल्यूएम नियमों का नियम 15य(ङ)	नियमों के उपाय करने, भवन योजना में अपशिष्ट संग्रहण केन्द्र स्थापित करने में विफलता	उल्लंघनकर्ता, ग्रुप हाउसिंग सोसाईटि या मॉर्केट काम्प्लेक्स आदि	50,000
14	एसडब्ल्यूएम नियमों का नियम 20(ग)	गलियों, पहाड़ियों, सार्वजनिक स्थलो में अपशिष्ट यथा कागज, पानी की बोतल, शराब की बोतल, सोफ्ट ड्रिंक, कैन, टैट्रा पैक अन्य कोई प्लास्टिक या कागज अपशिष्ट को फैकने पर	उल्लंघनकर्ता/पर्यटक /वाहन/चालक	1000
15	एसडब्ल्यूएम नियमों का नियम 20(घ)	नगर निगम की उप विधि को होटल / अतिथिग्रह में बोर्ड लगाकर व्यवस्था करने में विफलता	उल्लंघनकर्ता/होटल / अतिथिग्रह स्वामी	1000
16		सार्वजनिक सभाओं (जलूस प्रदर्शिनियों, सर्कस,मेले,राजनैतिक रैलिया,वाणिजिक,धार्मिक, सास्कृतिक कार्यकमों, विरोध प्रदर्शन आदि सहित से सार्वजनिक स्थलो पर आयोजित गतिधियों के क्षेत्र एवं आस–पास के क्षेत्रों की स्वच्छता सुनिश्चित करने में विफलता)	आयोजनकर्ता	5000

ह0/– (अस्पष्ट)
नगर आयुक्त,
नगर निगम, ऋषिकेश।

पी0एस0यू0 (आर0ई0) 07 हिन्दी गजट/63–भाग 8–2020 (कम्प्यूटर/रीजियो)।
मुद्रक एवम् प्रकाशक–अपर निदेशक, राजकीय मुद्रणालय, उत्तराखण्ड, रूड़की।

Annex V: Litter Free Triveni Ghat for Review

स्वच्छ सर्वेक्षण 2022

कार्यालय नगर निगम, ऋषिकेश, देहरादून।

विज्ञप्ति

"मेरी गंगा मेरी जिम्मेदारी"

वर्तमान समय में नगर निगम ऋषिकेश द्वारा स्वच्छ भारत मिशन के तहत स्वच्छ सर्वेक्षण 2022 में प्रतिभाग किया गया है, जिसमें निकायों को स्टार रेटिंग के आधार पर भारत सरकार द्वारा रैंकिंग की जानी है, नगर निगम ऋषिकेश द्वारा स्वच्छता सर्वेक्षण 2022 में प्रथम स्थान प्राप्त करने हेतु लगातार प्रयासरत है, इस हेतु त्रिवेणी घाट परिसर को नगर निगम के साथ जी0आई0जेड0 के अविरल ग्रुप, जिला गंगा सुरक्षा समिति, नमामि गंगे ग्रुप, गंगा सभा, यू0एन0डी0पी0 के सहयोग से निम्नलिखित मापदंड के तहत लिटर फ्री (गन्दगी मुक्त) घोषित किया जाता है–

1. त्रिवेणी घाट पर प्रत्येक 50 मीटर की दूरी पर कूड़ेदान की व्यवस्था।
2. कूड़ा डालाना एवं थूकना प्रतिबंधित है, पकड़े जाने पर एंटी लिटरिंग एवं एंटी स्पीटिंग एक्ट के तहत चालान किये जायेगें।
3. प्रतिबंधित प्लास्टिक, पॉलिथीन, थर्माकॉल का उपयोग वर्जित है, पकड़े जाने पर चालानी कार्यवाही की जायेगी।
4. घाटों पर कपड़े धोना, साबुन का प्रयोग करना प्रतिबंधित है।
5. घाटों पर साफ–सफाई रखना।
6. घाटों एवं घाटों के निकट मन्दिरों में विसर्जित किये जाने वाले फूलों को गंगाजी में न डालकर घाटों के किनारे रखे पुष्प संग्रहलय में डालना ताकि गंगाजी को प्रदूषण मुक्त रखा जा सके।

त्रिवेणी घाट परिसर को लिटर फ्री रखने हेतु नगर निगम ऋषिकेश, जी0आई0जेड0 के अविरल ग्रुप, जिला गंगा सुरक्षा समिति, नमामि गंगे ग्रुप, गंगा सभा, एवं यू0एन0डी0पी0 आदि द्वारा आई0ई0सी0 के माध्यम से लगातार प्रेरित किया जा रहा है। इसके अन्तर्गत लोगों को जागरूक करने के साथ साथ प्रख्यापित उपविधि के अनुसार दण्ड आदि की कार्यवाही भी की जा रही है। उपरोक्त के दृष्टिगत नगर निगम ऋषिकेश क्षेत्रान्तर्गत त्रिवेणी घाट परिसर को दिनांक 24/11/2021 को लिटर फ्री (गन्दगी मुक्त) किये जाने की स्वः घोषणा (Self declaration) की जाती है।

नगर आयुक्त
नगर निगम ऋषिकेश।

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Plastic Waste Management Action Plan 2022

Rishikesh Nagar Nigam

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