GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
(RAILWAY BOARD)

No. 2021/EnHM/11/03 **Dated: 04.10.2021**

The General Manager,
All Zonal Railways.

Sub: Creation of zero-waste Railway Stations and Railway Colonies.
Ref: Northern Railway's letter no. 143- M/102/Environment Initiative with GIZ dated 16.09.2021. (Copy enclosed)

Please find enclosed herewith a copy of letter under reference vide which, Northern Railway has informed that it is launching a year-long initiative to employ the principles of circular economy to enable sustainable waste management at Varanasi in partnership with Government of Uttar Pradesh and German Development Cooperation(GIZ). Under this plan, a model zero-waste Railway Station and zero-waste Railway Colony will be created in the city of Varanasi. This will also include development of capacity – building modules on various aspects of waste management for different levels of Railway functionaries.

Being a significant initiative by Northern Railway to enable sustainable Waste Management, this will also add value to all Zonal Railways by creating a knowledge repository in the areas of waste management and capacity-building.

Further, Zonal Railways may also explore the possibilities to take up similar initiatives in respective Zones and apprise the Railway Board on the steps taken to implement such initiatives.

Encl: As above.

6/10/21

(Ravi Jain)
Executive Director
Mechanical Engg. (EnHM &Project)
Railway Board

Copy to: **PCMEs/All Zonal Railways.**

983832/2021/O/o JD/EnHM

File No. 2021/EnHM/11/03 (Computer No. 3369851)

Northern Railway Headquarter Office
Annexe-I, Mechanical Department,
Baroda House, New Delhi

No. 143-M/102/Environment Initiative with GIZ

Date: 16.09.2021

Advisor (EnHM),
Railway Board
Ministry of Railways
New Delhi - 110001

SUB: Launch of year-long engagement with GoUP and GIZ for creation of model zero-waste railway station and zero-waste railway colony in the city of Varanasi

On the occasion of launch of Swachhata Pakhwada on September 16, 2021, Northern Railway, in partnership with Government of Uttar Pradesh (GoUP) and German Development Cooperation (GIZ), is launching a year-long initiative to employ the principles of circular economy to enable sustainable waste management at Varanasi. This has been done as part of the Indo-German bilateral cooperation agreement in the State of Uttar Pradesh.

2. In the **short-term (3-6 months),** this Plan aims at creating model **zero-waste railway station and zero-waste railway colony** in the city of Varanasi. The **medium-term (3-12 months)** activities include development of **capacity-building modules** on various aspects of waste management for different levels of railway functionaries. To maximise outreach through these modules, online hosting of these modules along with development of toolkits for practitioners shall also be undertaken. Detailed Action Plan agreed upon with GoUP and GIZ is enclosed.

3. The initiative is a significant step that will not only benefit Northern Railway, but will also add value to all Zonal Railways by creating a knowledge repository in the areas of waste management and capacity-building. Northern Railway shall be apprising the Ministry of Railways regarding progress and achievements in this regard on a regular basis.

This issues with the approval of PCME/NR.

ARCHANA MITTAL

Digitally signed by ARCHANA MITTAL
Date: 2021.09.16 16:01:58 +05'30'

DA: As above

(Archana Mittal)
CME/Plg&EnHM

सत्यमेव जयते

Activity Plan to Steer Northern Railways Towards Sustainable Waste Management

Railway RACE (**R**eduction, **A**wareness, **C**ircular, **E**ngagement) on Waste Management

Activity	Details	Output	Support from Northern Railways
Short Term (within 3-6 Months)			
Waste Audit	- Waste Quantification - Waste Characterisation - Waste value chain within railway premises and material flow analysis - Perception survey of passengers, railway staff and vendors on plastic waste management - Suggestions (OR Potential Identification) on alternatives to plastic Best Practices Analysis (global learnings which can be directly used by Railways) - Realistic recommendations on implementation and policy for waste management at railway stations - Preparation of tool kit for conducting waste audits at railway stations/premises - Preparation of online dashboard with a Central Monitoring System and a Mobile app to fill data on Dry and mixed waste at northern railway stations/premises	A railway station waste audit report Tool kit for waste audit Online dashboard for waste data collection, monitoring and reporting with minimum human interface	Relevant permissions to conduct audit and sharing of information and data available with railway station staff
Detailed Project Reports (DPRs) of suitable Waste Processing Technologies (Compost, Biomethanation and MRF) with inputs from waste audit report at different Railway stations and colonies in Varanasi	- Technology details customised for railway stations - Costing details - Suggestions on end uses of processed products to close the material loop. For E.g. using compost in nearby plantations or using biogas in railway kitchens for cooking. - Identification of suitable agencies willing to do CSR funding of waste processing plants	Detailed Project Reports for waste processing technologies	Information on Land/area availability at railway stations and railway colonies for setting up waste processing units

Activity	Details	Output	Support from Northern Railways
Application of Miyawaki Technique in Northern Railway premises	- Demonstration of forestry-based community carbon sink from biodiversity park/garden using Miyawaki technique.	Demonstration site for biodiversity parks/garden within northern railway premises DPR for raising biodiversity parks/garden using Miyawaki technique	Providing land (preferably 2-3 acres) within Northern Railway premises.
Closing the loop for treated wastewater within northern railway premises	- DPR for infra required for use of treated water - Assessing climate co-benefits approaches for water treatment	DPR document	
Setting up of plastic waste collection centre/Material Recovery Facility at railway station with online monitoring facility	- Mobilising Extended Producer Responsibility Funds through a waste management service provider	A plastic waste centre/MRF	- Permissions and information on land availability - Construction of shed for MRF at railway station - Contract processing with waste management service provider
IEC material	- Development of a capacity building video on measures taken to convert railway station to zero waste (waste audit, Setting up MRF, compost, biomethanation centre, source segregation etc.) - Video on a zero-waste railway colony - Development of IEC modules through crowd sourcing of ideas: Organise Hackathons	Video film	- Providing approvals by officials to conduct video shoots at railway station - Inputs to the script - Support in conducting interviews of high-level railway officials

Activity	Details	Output	Support from Northern Railways
Medium Term (3-12 Months)			
Development of training modules for plastic waste management in NR	- A training needs assessment on the topic of waste management in a focused group discussion mode with Railway Staff (DRM, Branch officers, Supervisors) and Department of Environment (DoE), Government of U.P. and RoPCB Varanasi - Development of TNA toolkit for doing online TNA. - Developing questionnaire for railway staff to assess the training needs - Another round of Focused group discussion and In-depth Interviews with Railway officials to discuss the training needs - Finalisation of training modules from data collected in consultation with Northern Railway officials and DoE, Government of U.P and RoPCB. - Development of online training modules on waste management for railway staff - Test run of modules with select railway staff - Final launch of training modules	A report on Training Needs Assessment Online training modules on waste management with online auto certification	Support in scheduling Focused Group Discussions and in-depth interviews with NR officials. Support in deployment of modules on online portals of NR/DoE/UPPCB. Facilitation with IT team of NR.
Awareness on source segregation of waste and single use plastics	- Continuous awareness sessions at railway stations on SUPs and source segregation at a frequency of twice a month for duration of 9 months - Continuous awareness sessions at one railway colony. - Training of railway staff	Session reports and photographs/videos	Relevant permissions at railway stations to conduct the sessions

Note: All implementation activities will be conducted at Varanasi railway stations and railway colonies suggested by Northern Railway