



सत्यमेव जयते

Ministry of Statistics and
Programme Implementation



Seminar on Residual Accounts & its linkages with Sustainable Development Goals

REPORT

Government of India
Ministry of Statistics & Programme Implementation
National Statistical Office
Social Statistics Division
www.mospi.gov.in



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Introduction

1. The knowledge about cleanliness or swachhata has been historically prevalent in Indian tradition and culture. The concept of swachhata is related to both health and environment. Swachhata or cleanliness is the responsibility of every individual and bears a close linkage with sustainability. The Sustainable Development Goals or the SDGs place considerable prominence to sanitation, cleanliness and hygiene. It is an undeniable fact that better sanitation, hygiene and cleanliness help in effective control of various diseases and leads to improved quality of life. Talking about sustainability, one of the pillars of sustainability is the 'Environment' and hence in order to achieve sustainability, environmental aspects cannot be ignored. Even the constitution of India contains certain provisions that reflect the State's commitment to protect the environment, including forests and wildlife, and which enjoins upon the citizens of India the responsibility to protect and improve the environment.

2. Swachhata Pakhwada started in April 2016 with the objective of bringing a fortnight of intense focus on the issues and practices of Swachhata by engaging Government of India's Ministries/Departments in their jurisdictions. The fortnight from 1st July to 15th July, 2023 had been allotted to Ministry of Statistics and Programme Implementation (MoSPI) with a focus on the issues and practices of Swachhata and innovative practices.

3. MoSPI, Government of India celebrated Swachhata Pakhwada starting from 1st July 2023 to 15th July 2023 by organizing series of activities. As a part of the celebration the Social Statistics Division, National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI), conducted a one day Seminar on 'Residual Accounts and it's linkages with Sustainable Development Goals' on 3rd of July, 2023. The event witnessed participation from experts from various agencies such as United Nations Environment Programme (UNEP), NITI Aayog, Ministry of Environment, Forest and Climate Change (MoEFCC), Central Pollution Control Board (CPCB), Assam Pollution Control Board, Telangana State Pollution Control Board, Karnataka State Pollution Control Board, Rajasthan Pollution Control Board, etc.

4. As it is well known that sustainability and environment are the two sides of the same coin. One cannot achieve sustainability without compromising on the environment or 'mother nature'. It was believed and carried forward by progeny that the world is one family, the philosophy of Vasudhaiva Kutumbakam, and the earth is our home and only one home. As a statistical agency, in order to create awareness

about the residual accounts and to ensure that Sustainable Development Goals are adequately monitored, MoPSI organized the seminar. The main purpose of the seminar was to discuss and channelize views about the residual accounts, its linkages with various policies, data collection mechanism and its associated challenges, relation of waste management and circular economy and the linkages of Residual Accounts with Sustainable Development Goals.

Schedule of the Event

5. The seminar was held at the India International Centre (IIC), Lodhi Road, New Delhi. The event witnessed remarkable participation (around 130 participants) from all over the country. The seminar commenced with the opening session followed by two technical sessions respectively focusing on **Residual Accounts and its linkages with SDGs in Session-I** and **Data Gaps & Challenges in the compilation of Residual Accounts in Session-II**. The schedule of the event is given below.

Programme Schedule

Time	Session	Details
10.00 am – 10.45 am	Registration of the Participants	
10.45 am – 11.30 am	Inaugural Session	<ul style="list-style-type: none"> Welcome Address: Chief Statistician of India and Secretary, MoSPI Address: Ms. Anshu Singh, Deputy Director General, MoEF&CC Inaugural Address: Dr. Rajiv Sharma, Chairman, State Pollution Control Board & Chief Adviser to Government of Telangana Remarks: Ms. Divya Datt, Deputy Country Head, UNEP Vote of Thanks: Mr. Kal Singh, Director General (Statistics), MoSPI
11.30 am – 11.45 am	Group Photo	
11.45 am – 12.00 pm	Tea / Coffee Break	
SESSION-I Agenda Setting Session: Residual Accounting and SDGs Chair: Mr. A. Nandakumar, Director General (C&A), MoSPI		
12.00 pm – 1.30 pm	Compilation of Residual Accounts	Dr. Sudepta Ghosh, Director (Environment), SSD, MoSPI
	Residual Accounts and its linkages with SDG	Ms. Divya Datt, Deputy Country Head, UNEP
	Achieving Circular Economy in Residual Waste Management	Dr. Snigdha Goel, Young Professional (Water & Environment Vertical), NITI Aayog
	Policy on Waste Management	Mr. Satyendra Kumar, Director (Hazardous Substances Management), MoEF&CC

1.30 pm – 2.30 pm	Lunch Break	
SESSION - II Residual / Waste - Data Gaps and Challenges Chair: Ms. R. Savithri, Ex-ADG, MoSPI		
2.30 pm – 4.00 pm	Data Collection Mechanism of Residuals and their Challenges	Ms. Divya Sinha, Sc.'F', Central Pollution Control Board, New Delhi
	Practices followed by States on Residuals: Data collection mechanism, challenges and new initiatives	<ul style="list-style-type: none"> • Representative from Karnataka, State Pollution Control Board • Mr. Meghnad Nath, Additional Chief Environmental Engineer, Pollution Control Board, Assam
	Practices followed by Local Bodies on Residuals: Data collection mechanism, challenges and new initiatives	<ul style="list-style-type: none"> • Mr. O P Kala, Executive Engineer, Department of Local Self Government, Rajasthan
	Discussion	
4.00 pm – 4.15 pm	Tea / Coffee Break	
4.15 pm – 4.45 pm	Way Forward - Possible collaborations on compilation of the Residual Accounts on a pan-India level Chair: Ms. R. Savithri, Ex. ADG, MoSPI and Mr. Rakesh Kumar Maurya, DDG(SSD-Environment), MoSPI	

6. The concept note and all the presentations related to seminar are available in the Ministry's website and can be found at <https://mospi.gov.in/>. The event was also live streamed through social media platforms such as Facebook and YouTube. The links for the live events is given as below:

YouTube: <https://www.youtube.com/watch?v=IFYjjWows4U> and

Facebook: <https://www.facebook.com/events/1317682552161712>

Promotion & Media Coverage

7. All officers of the Ministry, the members of the Inter-Ministerial Group and experts from national and international agencies were invited for the event. In addition, the invites for the event was also sent to State Urban Development Departments, State Pollution Control Boards and State Directorates of Economics and Statistics (State DES's). Apart from that, the event was also promoted on various social networking platforms.

Flyers of the event

Government of India
Ministry of Statistics and
Programme Implementation

100
Azadi Ka
Amrit Mahotsav

G20
INDIA 2023

Seminar on
“Residual Accounts & its linkages with Sustainable Development Goals”
under
Swachhata Pakhwada 2023
3rd July, 2023
India International Centre, New Delhi

www.mospi.gov.in @GoStats

WAIT IS FINALLY OVER

The flyer features a large line-art illustration of Mahatma Gandhi on the left. At the bottom, there is a colorful illustration of people participating in a cleanliness drive (Swachhata Pakhwada) with trees, a recycling bin, and a broom. A circular logo on the right contains the text 'WAIT IS FINALLY OVER' with a person icon. The background is a light green gradient.

Government of India
Ministry of Statistics and
Programme Implementation

100
Azadi Ka
Amrit Mahotsav

G20
INDIA 2023

TECHNICAL SESSIONS
of the Seminar on
“Residual Accounts & its linkages with Sustainable Development Goals”
under
Swachhata Pakhwada 2023
3rd July, 2023
India International Centre, New Delhi

Session-1
Residual Accounting and SDGs

Session-2
Residual / Waste-Data Gaps and Challenges

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This flyer has a light green background with a subtle grid pattern. It features two green callout boxes with white text for the session titles. At the bottom, there is a colorful illustration of people participating in a cleanliness drive (Swachhata Pakhwada) with trees, a recycling bin, and a broom. The background is a light green gradient.

Highlights of the Opening Session

8. The inaugural session witnessed the gracious presence of eminent dignitaries: - Dr. G. P. Samanta, Chief Statistician of India (CSI) and Secretary, MoSPI; Dr. Rajiv Sharma, Chairman, State Pollution Control Board & Chief Advisor to Government of Telangana, Ms. Anshu Singh, Deputy Director General, Ministry of Environment Forest and Climate Change (MoEFCC), Ms. Divya Dutt, Deputy Country Head, UN Environment Programme and Shri Kal Singh, Director General (Statistics), MoSPI.

9. Dr. G. P. Samanta, CSI & Secretary, MoSPI inaugurated the event by stressing on the fact that the primary aim of National Statistical System is to provide timely, reliable and comprehensive data in order to facilitate the Government for policy formulation, monitoring, evaluation and recommendations for further improvements. He also emphasized on Environmental Accounts, which has the potential to measure the links between the Environment and the Economy, both the impact of the economy on the environment and contribution of environment to the economy. He also added that MoSPI envisions to inspire a behavioral change among key decision makers, particularly around recognizing and capturing the value of nature and the ecosystem services in policy making. He informed that MoSPI adopted the System of Environment Economic Accounts (SEEA), which is the agreed international framework for the compilation of the Environment Accounts in 2018 and since then has been regularly compiling Environmental Accounts. He also talked about the efforts of the Ministry in compilation of the Solid Waste Accounts.

10. Stressing on the UN 2030 Agenda for the Sustainable Development, Ms. Anshu Singh, Deputy Director General, Ministry of Environment, Forest and Climate Change (MoEFCC) highlighted essentially the links of the SDG-12 (Responsible consumption and Production) and SDG-13 (Climate Action) with the residuals. She emphasized on the 'Mission Life Document', launched by the Honorable Prime Minister at the Conference of Parties 26 of the United Nations Framework Convention on Climate Change (UNFCCC) which aimed to inculcate lifestyle changes in general population to bring down emissions. The mission has seven important themes, of which at least three resonate closely with waste management- Single Use Plastic, Waste Reduction and E-Waste Reduction. She addressed to the need of understanding residuals, its source and the disposal, in order to ensure optimality in its management. She therefore suggested the requirement for the compilation of the Residual Accounts which will be important not only for MoEFCC but other line Ministries dealing with Waste Management. She also mentioned that

getting the waste generated data classified by the Industrial Classification by source of generation like household, agriculture, etc. can help in planning meaningful strategies to tackle it at source. She also talked about the usefulness about the Extended Producers Responsibility Framework

11. The seminar was also graced by Dr. Rajiv Sharma, Chairman, State Pollution Control Board & Chief Advisor to Government of Telangana. He talked in depth about the Sustainable Development Goals and the stressed on the importance of the Environment Accounts. He also talked about the various linkages of the SDGs with the Environment Accounts. He applauded the efforts of the MoSPI for constantly working towards Environment Accounts, thus facilitating the policy makers with the right information for evidence- based decision making.

12. Ms. Divya Datt, Deputy Country Head from UNEP, talked about the Triple Planet Crisis, the Crisis of Pollution, the Crisis of Climate Change and the Crisis of Biodiversity Loss and also highlighted the fact that data is essential in identifying and finding the right solutions to these crises. She informed about the global treaty to tackle plastic waste where India is playing a crucial role and for which Residual Accounts will be necessary. Highlighting the concerns about data gaps, she stressed on the need for a coordinated approach from all the agencies and stakeholders in the data collection mechanism. She lauded MoSPI's efforts for doing pioneering work in Environmental Accounts and providing data for ascertaining the actual ground story.

13. Towards the end of the inaugural session, the vote of thanks was delivered by Shri Kal Singh, DG (Statistics) where he thanked all the dignitaries and the speakers for their participation in the seminar. He also emphasized on the fact that MoSPI would continue to make efforts in the direction of making the environmental accounts more prominent and visible so that these can play a vital role for the decision-making process.

Highlights of the Technical Session-1 on “Residual Accounting and its linkages with SDGs”

14. The first technical session of the event was dedicated to the discussions on the Residual Accounting and its linkages with SDGs. The Session was chaired by Mr. A. Nandakumar, the then Director General (C&A), MoSPI. The session witnessed deliberations from Dr. Sudeepta Ghosh, Director, Social Statistics Division, MoSPI, Ms. Divya Datt, Deputy Country Head, UNEP, Dr. Snigdha Goel, Young

Professional (Water & Environment Vertical), NITI Aayog and Mr. Satyendra Kumar, Director, MoEFCC.

15. Dr. Ghosh presented the overview of Compilation of Solid Waste Accounts. Touching upon the historical background of the Environment Accounts, she mentioned about the constitution of a High- Level Expert Group under the chairmanship of Prof. Sir Partha Dasgupta for preparing roadmap for the compilation of the Environment Accounts in India. She talked in detail about the Residual Accounts especially focusing on the Solid Waste Accounts, which is a part of the Material Flow Accounts, compiled by India following the SEEA Framework. She also informed about the ongoing efforts in the direction towards expansion of the coverage of these Residual Accounts.

16. Ms. Divya Datt, Deputy Country Head from UNEP, in her deliberations highlighted the seven specific indicators under SDGs that are connected with Residual Accounts for instance- Proportion of municipal solid waste collected out of total generated, Food Waste Index, Number of parties to international multilateral agreements on hazardous waste and other chemicals and their adherence to obligations, Hazardous Waste generated per capita, Proportion of Hazardous Waste treated, National Recycling Rate and Floating Plastic Debris Density. She also informed about the various multilateral environmental agreements related to chemicals and waste. She also highlighted the importance of an integrated system for coordinated and harmonized collection, validation and reporting of waste management data across government agencies in order to overcome the challenges in data generation, collection and reporting. Ms. Datt also talked about the 'The Economics of Ecosystems and Biodiversity (TEEB)' which is a global initiative which seeks to recognize, demonstrate and capture nature's value in decision-making.

17. Dr. Snigda Goel, Young professional from NITI Aayog gave an overview of the importance and relevance of Achieving Circular Economy in Residual Waste Management. She talked about the statistics related to wastes both at global as well at national level indicating some of the inappropriate waste disposal mechanisms. She also talked about the various government schemes for the efficient management of Residuals, like Swacch Bharat Mission, 2014, Waste Management Rules, 2016, Bio-Medical Waste Management Rules, E-Waste Management Rules, Construction and Demolition Waste Management Rules, 2016, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and Plastic Waste Management Rules Amendment 2022. She also emphasized on the fact that circular-

economy based development approach is one of the key strategies for achieving 2030 Agenda for Sustainable Development Goals focussing on the business models for circular economy and digitalization in waste management. She also talked about some of the important aspects such as Legacy Waste Management, Wet Waste Management, Waste Water Management and other new initiatives taken by the Government of India in this direction.

18. Mr. Satyendra Kumar, Director, MoEFCC who talked about the waste and the waste management including the associated benefits, challenges and hierarchy of waste management. In his deliberations, he also touched upon Extended Producer Responsibility (EPR) which means the responsibility of a producer for the environmentally sound management of the product until the end of its life. Other important subject which Mr. Kumar highlighted in this talk was the Role of Waste management in achieving SDGs, Circular Economy, Real time data management for waste management, Waste to wealth, Multilateral Agreements for instance Basel Convention, Stockholm Convention, Rotterdam Convention, Minamata Convention and Strategic Approach to International Chemicals Management (SAICM).

Highlights of the Technical Session-2 on “Residual / Waste - Data Gaps and Challenges”

19. The second session focused on the discussion on the data gaps and challenges for the residual accounts. The session was chaired by Ms. R. Savithri, Ex-Additional Director General, SSD, MoSPI.

20. Ms. Divya Sinha, Scientist-F, Central Pollution Control Board (CPCB) talked about the available sources of data for the residuals and also the associated challenges in collection of these data. Some of the challenges mentioned were - Submission of partial and incomplete information at various levels, Irregularities in the submission of report every year by state pollution control boards / committees, Information collected is not from the point of origin of waste but from secondary locations, Strong presence of informal sector resulting in removal of valuable components such as glass and metals, very long channel for relay of information, Limited infrastructure at operator level such as unavailability of system of weighing, Limited knowledge and information at operator level. She also talked about the information available on the Centralized Extended Producers Responsibility (EPR) Portal for Plastics Packaging and Single Use Plastic (SUP) Compliance Monitoring Portal.

21. This was followed by State presentations by representatives from Assam Pollution Control Board and Karnataka Pollution Control Board. The waste management in Assam was elaborated by Mr. Meghnad Nath, Additional Chief Environmental Engineer, Pollution Control Board, Assam. He essentially talked about the waste management and the various steps taken in the direction towards mitigating the gaps for the management of Wet Waste, Dry Waste, Inert Waste, Legacy Waste. Showing its commitment towards effective waste management, the state has prepared a road map for comprehensive coverage of Sewage Treatment Plant (STP) and Faecal Sludge Treatment Plant (FSTP) infrastructure in all the towns for treatment of black and grey water. Also, Assam has tied up with National Institute of Urban Affairs (NIUA) for used water management. The State of Assam is also being technically supported by UNICEF in rolling out FSTPs in various towns in the state. Mr. Nath also talked about the challenges faced in the data collection for the wastes. Some of the new initiatives taken by Assam was also highlighted by Mr. Nath such as -Introduction of e-manifest system for tracking waste movement from generator to recycler/actual user has helped in reducing data gaps; Inventorisation of Hazardous and other waste along with sensitization of stakeholders including HW generating industries through frequent interaction with occupiers; Random verification of reports on HW generation and management has helped reducing data gaps to some extent; Authorization of occupiers and ensuring compliance to conditions of authorization; Introducing HW passbook for occupiers enabling them to maintain records of recyclable Hazardous waste generation and disposal etc.

22. An elaborate presentation was made by Ms. Viji Kartikeyan, Senior Environment Officer from Karnataka State Pollution Control Board through virtual mode. She talked about the data collection mechanism in the State for various types of Wastes such as Municipal Solid Waste, Plastic Waste, E-Waste, Construction and Demolition Waste, Hazardous and other wastes and Bio-Medical Wastes. She also highlighted some of the challenges faced by the State in such as segregation, collection, transportation, disposal in landfill site, leachate, black spots, legacy waste, prevention of the use of plastics, gap between the formal and the informal sector in plastic management etc. As regards the challenges of the E-Waste are concerned, she informed that the data on quantum of electrical and electronic equipment (EEE) put into market is not available. She also talked about the challenge in reconciliation of total quantity of hazardous/other waste handled as certain category of hazardous /other waste go out of state for recycling and certain category of hazardous waste/other waste enter the state for recycling. She also highlighted some of the new

initiatives taken with respect to development of decentralized composting facility ward, installation of camera and fencing in lake areas to prevent dumping, encouraging industries to use plastic waste to produce oil etc.

23. Next, a presentation detailing about the data gaps and challenges faced in collection of the waste data was made by Mr. O. P Kala, Executive Engineer, Dept. of Local Self Government, Rajasthan. He mentioned about the data collection mechanism in the State and the challenges involved therein. Mr. Kala also informed about the new initiatives being taken by the State towards management of the Solid Waste such as Door to Door Collection through twin compartment vehicle, Processing of Wet & Dry waste separately, Material Recovery through Materials Recovery Facility (MRF), Resource, Recovery and Reuse (RRR) Centre, Processing Facility, Disposal of Refuse Derived Fuel (RDF) to Cement Plant, Gap analysis, Decentralizing processing, Identification of Bulk Waste Generator, Engagement of Rag Picker. He also talked about the management of the Legacy waste and also 'Waste-to art' mechanism in the State.

Way Forward

24. Towards the end, Ms. R. Savithri and Shri Rakesh Kumar Maurya, Deputy Director General (SSD), MoSPI thanked all the speakers for sharing valuable ideas and information during the seminar. Shri Maurya, informed about the one to one discussion which MoSPI had with the State of Rajasthan that has resulted in greater collaboration amongst the Centre and the States. He suggested having similar meetings with other states involving other line departments from the states, DES being the nodal agency.

25. In addition, he also shared his idea about organizing the capacity building workshops/seminars on the compilation of the Environment Accounts in order to create an awareness of the environment accounts and to encourage the states to compile their respective set of environment accounts.

Some Glimpses of the Seminar









About the Organizers

The Social Statistics Division under the National Statistical Office, Ministry of Statistics & Programme Implementation, releases publications covering various statistics including those on different aspects of environment. These are based on internationally prescribed statistical frameworks and are available on the website of the Ministry, <https://mospi.gov.in>. The publications envisage to provide the necessary information for the benefit of all stakeholders who are working towards a 'better environment, better tomorrow'.

Publications on Environment Statistics & Environment Accounts





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