



**One-day Workshop
on
“International Conventions on Chemicals and Waste”**
**Venue: Auditorium, Gujarat Pollution Control Board, Paryavaran Bhavan,
Sector-10A, Gandhinagar-382010**

Date: 12 September 2023

Time: 10.30-5.30 PM



CSIR-National Environmental Engineering Research Institute, Nagpur and Gujarat Pollution Control Board (GPCB), Gandhinagar, Gujarat jointly organized a one-day Workshop on “International Conventions on Chemicals and Waste” on 12 September 2023 at Auditorium, GPCB, Gandhinagar. The workshop was organized as part of the GEF-UNEP funded project “Review and update of National Implementation Plan (NIP) on persistent organic pollutants (POPs) in India”. The objective of the workshop is to generate awareness, and build capacity of stakeholders in the state of Gujarat.

The inaugural session of the workshop was attended by Shri R B Barad, IAS, Chairman, GPCB, Er D M Thakar , Member Secretary, GPCB, Dr R. N. Singh and Dr Sukumar Devotta, Former Directors, CSIR-NEERI, Dr M P Patil, Chief Scientist and Head, CHWMD, CSIR-NEERI, Er. Prasoon Gargava, Sc. E & Regional Director, CPCB, Vadodara, Er G S Kanade, Sr Principal Scientist and Dr A Ramesh Kumar, Principal Scientist and Organising Secretary, CSIR-NEERI.

Dr M P Patil, welcomed the participants. In his opening remarks, he expressed the inability of Dr A N Vaidya, Director, CSIR-NEERI to attend the workshop due to an urgent meeting in Delhi and conveyed his wishes for the successful completion of the workshop. He spoke about the association of CSIR-NEERI with UNEP since the recognition of CSIR-NEERI as “Stockholm Convention Regional Centre (SCRC) in India. Dr Patil explained about the various trainings and workshops organized by SCRC-India for the benefit of stakeholders. Dr Patil spoke about the need for management of hazardous chemicals manufactured in and imported/exported into the country. He also stressed the environmentally sound management of hazardous waste. Dr Patil thanked GPCB for providing the necessary facilities to conduct the workshop in its premises.

Dr A Ramesh Kumar, organising Secretary explained the objective of conducting the workshop in Gujarat. Gujarat is the major state in India where chemical industries are located and also some of the industrial POPs such as short chain chlorinated parafins (SCCPs), perfluoroalkyl substances (PFAS) and brominated flame retardants are manufactured. Hence, the main aim of the workshop is to generate awareness about POPs, engage stakeholders and building country capacity. He explained about the NIP, its requirement and the need for its updation. The updation

of NIP is taken by CSIR-NEERI on behalf of Ministry of Environment, Forest and Climate Change (MoEFCC) and it is the mandatory requirement of the country.

Er. Prasoon Gargava, Regional Director, CPCB spoke about the role of CPCB as a regulator, and the implementation of various environmental regulations in India. Understanding of International Conventions viz. Basel, Rotterdam, Stockholm, Minamata, Montreal and Strategic Approach to The International Chemical Management (SAICM) within the context of waste management rules such as hazardous and other wastes, plastic waste and municipal solid waste management is necessary to protect human health and environment. The problems due to POPs will be mitigated if all waste management rules are implemented in letter and spirit. He assured the coordination of CPCB with industries, during the sampling and data collection.

The workshop was graced by the presence of two former Directors of CSIR-NEERI viz. Dr Sukumar Devotta and Dr R. N. Singh. Dr Devotta, in his address spoke about the various dimensions of international conventions and shared his experience in the stand taken by India in ratifying Montreal Protocol. He emphasized the overarching aspects of BRS and Montreal protocol, especially the PFAS group of chemicals. Dr R. N. Singh, spoke about the planetary threat posed by all types of waste, particularly hazardous chemicals and plastic waste. He advocated the judicious utilization of earth's resources for the sustenance of mother earth. He appreciated NEERI's work in this area and wished every success of the workshop.

Er D M Thakar, Member Secretary, GPCB and Guest of honour, spoke about the chemical industries located in Gujarat and the actions taken by GPCB to mitigate the issues. He informed that Gujarat has the maximum number of Treatment, Storage, and Disposal Facility (TSDF) in the country for the disposal of hazardous wastes. Several of the rivers are polluted in Gujarat due to emissions from industrial clusters located in Ankaleshwar, Baruch, Vadodra and Vapi areas. However, remediation measures are on anvil, and emphasised the need for technical competency and financial resources to address all the challenges. He thanked CSIR-NEERI for organising the workshop in GPCB and requested all participants to build their capacity.

Shri R B Barad, IAS, Chairman, GPCB and Chief Guest in his opening remarks appreciated the lead taken by CSIR-NEERI to fulfil the mandate of the country. He

said GPCB has deputed 70 Environmental Engineers/Scientists for this workshop to enhance their capacity to manage hazardous chemicals and industrial safety. He said that the selection of Gujarat for this workshop is most appropriate as maximum number of hazardous chemical manufacturing industries are located in Gujarat. Shri R B Barad called upon all participants to make the most of the workshop as such workshops are very rare in our country.

The inaugural session ended with the vote of thanks by Er G S Kanade, Sr Principal Scientist. He thanked GPCB for extending good cooperation to organise the workshop in their auditorium. Further, GPCB extended its in-kind support for the arrangements of this workshop, particularly Dr Dipali Shukla, Scientific Officer, and Ms Nidhi Raval, PRO, Shri Mehul Bhai, Stores Dept. Er Kanade thanked all guests, invited speakers and participants.

The technical session started with the presentation by Dr A Ramesh Kumar, titled “Basal, Rotterdam, Stockholm, Minamata and Montreal Protocol/Conventions”. Dr Kumar explained about the technical, and socio-political reasons on the origin of international conventions. Dr Kumar, further explained about the historical developments, and brought to the participants the changes brought out by the book “Silent Spring” by Rachel Carlson. He briefed on the key features, mandates and compliance requirements of BRS and Minamata conventions by parties. Dr Kumar explained about the mandatory requirement of Govt of India on the NIP development and updation as per Stockholm Convention. He requested GPCB and Industries to share data on production and use of listed chemicals.

Dr Sukumar Devotta, Former Director, CSIR-NEERI spoke on “Montreal Protocol on Ozone depleting substances (ODS)”. He explained the different ODS and the mechanism of ozone layer depletion. Dr Devotta explained the formation of “Multilateral Fund” by UNEP for helping developing countries in meeting their obligations to phase out ODS. Dr Devotta explained about the Kigali amendment mandating countries to phase out HFCs as they have higher global warming potential (GWP). Participants interacted with Dr Devotta on the manufacturing of refrigerants in India, and other countries.

Dr K P Pratish, Sr Scientist, CSIR-NIIST, Trivandrum spoke on “Dioxins and Furans emissions in India- Current status, challenges and scope for reduction through BAT/BEP”. He explained the various sources of dioxins and furans and the importance of monitoring and reduction through BAT/BEP. Dr K P Pratish presented the emission

factors developed by NIIST and projected the annual emissions and compared it with WHO recommended intake levels.

The second technical session started with the presentation of Dr Vishal Choudary, Deputy Industrial advisor, Ministry of Chemicals and Fertilizers. He presented the importance of chemicals in the economic development and the role of chemicals in modern life, including health care. He presented India's position in terms of production, import/export, consumption of chemicals. He briefly touched upon BRS conventions, EU REACH regulation and its salient features in the area of chemical management. He emphasized the need for harmonised system (HS) of coding in import/export by custom officials. Most chemicals are imported in India under the category "others", hence it would be very challenging to identify volume of imported chemicals without HS codes. DCPC has introduced HS codes, but only of 57 pesticides against the registered 1138 pesticides. Currently, DCPC is in the process of introducing HS codes for all imports and in future no imports will be allowed under 'others' category. Also, CPC is working closely with Bureau of Indian Standards (BIS), to ensure quality of imports with respect to chemicals.

Dr Devendra Kumar Patel, Sr Pr Scientist, CSIR-IITR, Lucknow talked about "Industrial POPs- Perfluoro Alkyl Substances (PFASs)". He explained about the ubiquitous presence of PFAS due to its use in various consumer products and its lipophobic and hydrophobic properties. He gave an overview of manufacturing details of PFAS in India and the need for its assessment. Dr Patel presented the findings of studies on environmental levels, health impacts and the need for standards for PFAS group.

Towards the end, a panel discussion was held with all speakers. Dr Sukumar Devotta summarised the discussions and requested participants to put forth their views/perspectives of the workshop theme. Participants interacted with all the speakers and shared their views. Dr A Ramesh Kumar said the comments/views will be put forward to policy makers during the upcoming workshops/meetings.

The workshop was attended by more than 200 participants from GPCB, CPCB, Industries, Academia and NGOs. The program was conducted by Ms Sarah, GPCB. The workshop arrangements were made by Dr Sanjev Kumar Singh, Er G S Kanade, Sr Pr Scientists, Dr Sushant Wath, Principal Scientist of CSIR-NEERI, Nagpur and Dr Dipali Shukla, Scientific Officer, and Ms Nidhi Raval, PRO, GPCB, Gandhinagar.