Concept Note

WEBINAR 1

Date: 12th May 2020 | 14:30 – 17:00 hrs

Theme:

The Science & Technology of Plastics & Techniques/best practices of plastics pollution assessment and investigation.

Background:

In the plastic age we are in, if plastics are not reorganized and redesigned to be maintained in a circular loop or properly managed at their end-of-life, they will find their way into the environment, a phenomenon called leakage. To increase plastic material circularity, leakage of plastic from the human technosphere must be reduced, and ultimately prevented. To effectively control the plastic waste litter, stakeholders must be able to identify and detect the leaks at different points in the plastic value chain and initiate appropriate control measures. Plastics enter the environment by one of two core streams: visible macroplastics mainly from mismanaged waste, and a significant quantum as invisible primary microplastics. Currently there is a need to standardise methodology to perform plastic leakage assessments.

Objective:

The session shall highlight the science and technology features of polymers and plastics and the growing consumption aspects and generation of plastic waste including from single use plastics. Further, the initiatives in plastic waste assessment undertaken by various institutions / researchers is deliberated to reflect on the concerns of land based hotspots and problem of riverine and marine litter. The session shares insights from clean up initiatives in four cities as part of UNEP project. Further, the discussions seek to explore and identify gaps in plastic waste assessment that could be taken up for new projects.

The session shall cover the following topics:

- Assessment of Plastic Pollution by NPC in 4 cities.
- Polymer Science & Technology for plastics products.
- Environmental Implication of Single Use Plastic.
- Methodology for Macro-plastic assessment undertaken in India and challenges.
- Methodology for Micro-plastic assessments in rivers & Oceans and constraints.
- Approach of sampling & analysis in sediments of river Ganga.
- Problem of Marine Litter and Initiatives undertaken by Government of India in the area of plastic pollution assessments.

Expected Outcome:

Recommendations for Plastic waste assessment methodology and need for standardization and compilation of best practices followed in India.

Concept Note

WEBINAR 2

Date: 14th May 2020 | 14:30 – 17:00 hrs

Theme:

Community Perceptions and behavioral aspects for plastic management and promotion of countermeasures to address (Riverine and Marine) plastic litter.

Background:

India generates approximately 9.4 million tonnes of plastic waste every year, and out of this approximately 60 percent of plastic waste is recycled and rest 40percent is left uncollected or littered (source: Ministry of Housing and Urban Affairs, March 2019), which often ends up in open areas or drains and eventually in the river bodies.There is an urgent need to curb the plastics ending up in the Ganga and other rivers by providing alternatives to plastics, improved management of plastic waste, promoting awareness amongst locals and tourists / visitors. In order to achieve this, there is a need to understand the perception of various stakeholders in the city on plastic waste – its source, impact, major contributors, their current actions and overall willingness to prevent it from going into the river.

Objective:

Exploring and reflecting upon awareness levels regarding plastic consumption and disposal implications, and approaches to enabling behaviour change in society. Highlighting case examples from 4 cities (including tourist and pilgrimage sites) and engagement of various stakeholders in the process.

The session shall cover the following topics:

- Perception survey for Plastics Consumption and Waste Management in Agra city, Prayagraj and Haridwar, and Mumbai - Case examples of the UNEP project.
- Programmatic engagement of children and behavioral shift towards plastics management.
- Plastics manufacturers and industry response to single use plastic phase out.
- Case study : Engaging citizen for Door-to door collection of segregated waste along with GPS tracking of vehicles carrying waste in Mumbai by BMC.
- Swachh Survekshan-The competitive approach to behaviour transition in city region.
- Acceptance of change towards transitioning to use plastic alternatives in society.
- Media and waste segregation pursuit- Is change occurring.
- Response and effect of single use plastic ban in selected cities (Mumbai/ Bangalore).
- Participative methodology for online perception survey towards educative behaviour shift.

Expected Outcome:

Recommendations for enhancing community participation by instilling behaviour change leading to sustainability of countermeasures to prevent plastic littering.

Concept Note

WEBINAR 3

Date: 16th May 2020 | 14:30 – 17:00 hrs

Theme:

Activities and Best practices to counter plastics litter by sustainable waste management and circularity.

Background:

Plastics have the potential to be better managed at end of life of products and components. To increase material circularity, leakage of plastic from the human technosphere must be reduced, and ultimately prevented. This requires right policy intervention, effective implementation of rules, good depository schemes to enable organized collection of plastic waste, appropriate product design to enable recycling, other novel treatment and disposal options, and alternatives to plastics to be provisioned as part of the scope for sustainability initiatives.

Objective:

Issues and challenges of linear plastics economy and exploring prospects for Circular Economy via innovative techno-economic solutions and approaches for redesigning the value chains.

The session shall cover the following topics:

- Snapshots of Findings of macroplastic assessment during clean up exercise.
- Collection and channelizing plastic bottle recycling via reverse vending system.
- Grass root waste management enterprise creation in the ecosystem- A case study.
- Case study - Garbage Cafe, a depository scheme for collection of the plastic waste.
- Value Creation from single use plastic waste- Novel initiatives of Indian Oil Corporation Ltd.
- plastics recycling as an important link in achieving circularity.
- Plastic Credit Units, Its benefits, Exchange Ecosystem to be used for sustainability, Dynamic pricing mechanism for fulfilling compliance and its social and financial impact on the industry. and consumer / people behaviour.
- Evolving EPR framework in plastics management.
- Value Creation from single use plastic waste- Novel initiatives of Indian Oil Corporation Ltd.
- Multi Layer plastic management -post consumer disposal.
- Use of Waste Plastic for Bituminous Road.
- FMCG initiatives in plastics circular economy in India.
- Technical specification for Co processing of plastic waste in cement kiln and Constraints faced.
- PWM Rules and their implementation scenario - status and prospects.
- Standardising Recycled Plastic material and products.
- Waste to Energy from Plastics.
- ULB initiatives for promoting plastics circularity.
- Flexible packaging - scope of biodegradation.

Expected Outcome:

Recommendations for bringing circularity through sustainable waste management to minimize plastic waste and littering in Indian conditions.

Concept Note

WEBINAR 4

Date: 18th May 2020 | 14:30 – 17:30 hrs

Theme:

Assessment of plastic pollution impact on natural capital and riverine and marine ecosystems needing policy intervention

Background:

Impacts of plastics on flora, fauna and humanity have been observed by researchers. Plastic debris in the environment soaks up hazardous pollutants, transports them through the ecosystem and transfers the compounds to organisms that consume the plastic particles, potentially producing adverse health effects, and also causing plastics and associated chemicals to reach higher trophic levels into food chains.To fairly evaluate the impacts of plastics within a comprehensive ecological and economic and environmental framework and to address trade-offs, life cycle methodologies will need to be bolstered by standardized and widely-accepted plastic leakage assessment and accounting.

Objective:

To understand mismanaged plastics in the environment ideology (Macro and Micro plastic), Valuing eco - system services and bio - diversity and implications from waste plastic litter, and river economics and impact of plastics on the eco - system and food chain and Life Cycle aspects.

The session shall cover the following topics:

- Snapshots of Findings of Microplastic assessment in Ganga and Yamuna
- "The Lost Plastic and it's Consequences"
- Ecological Economics of Plastics and Fiscal and Behavioural Policy Instruments
- Macro and Micro plastic in Indian Marine environment – concerns regarding food chain and Impact evaluation Methodology
- Addressing mission clean Ganga - Technical elements
- River economics and impact of Plastics on the eco system and food chain
- Valuing eco system services and bio diversity and implications from waste litter
- Sustainable Development Goals and indicators monitoring to cover plastic impact
- Natural capital implications from plastic pollution impacts - Assessment Methodology and results
- Life cycle analysis of plastic products in the value chain

Expected Outcome:

Improved understanding of economic implications including econometric tools for assessment of impact of plastic waste on riverine and marine ecosystem, in Indian context and recommendations for developing regulatory &market based instruments for preserving riverine and marine ecosystems.

Concept Note

WEBINAR 5

Date: 20th May 2020 | 14:30 – 17:00 hrs

Theme:

Impact of COVID-19 on plastics consumption, innovation, logistics and waste generation (including PPEs and wastes from Health Care Facilities) and related challenges.

Background:

The current pandemic of the novel coronavirus, COVID-19, has brought various challenges to global and local economic systems, essential services and the health sector. The health sector industry has come into intense activity especially in the context of production / consumption and innovation of PPEs and expansion in polymeric textiles and plastics usage in the domain. Further, have arisen significant challenges regarding municipal and bio-medical waste management practices and procedures (safety and health measures for employees, waste treatment requirements, general procedures introduction / amendments etcdue to coronavirus,and need for improvement in waste management sector due to disposal of growing quantum of PPEs as well).

Objective:

Understanding the problem of Covid 19 and plastics and waste management process in pandemics, and the issue of innovations and applications in PPEs and medical devices in Health sector, and concerns regarding their disposal and bio-medical waste management aspects.

The session shall cover the following topics:

- Covid 19 and pandemics - the implications on plastic material consumption
- PPEs - Types and composition, production and consumption scenario and value chain features.
- Demand analysis and coordination of delivery to establishments including Health Care Facilities and Law enforcement arenas and especially in the wake of epidemics.
- PPEs and Medical equipment: Historic designs and emerging innovations for plastics and polymer usage - besides need for reuse - recycling, disinfection and microbes control and management (IIT / Endoluminal sciences).
- Standards and specifications concerning PPEs (including masks, coveralls / suits, gloves etc) and their testing.
- Use of PPEs by Doctors, Nurses and health care specialists and desired features to enable due patient care and patient testing and diagnostics stages while addressing pathogen related risks control.
- Existing Bio Medical Waste Management system in India and the guidelines and initiatives to tackle Covid 19 epidemic scenario for the BMW Management facilities (BMW Management Facility).
- Homemade PPEs and masks and use of PPEs by citizens : The expansion of bio medical waste management challenge.

Expected Outcome:

Recommendation for approaches to PPEs Value chain management during epidemics / pandemics.

Concept Note

WEBINAR 6

Date: 22nd May 2020 | 14:30 – 17:00 hrs

Theme:

Scenarios to counter plastics litter in river and marine environment by overcoming barriers and identifying enabling measures and shaping roadmap and strategy ahead.

Background:

In the current plastics era, the problem of riverine and marine litter has emerged as a global concern as plastics leakage has been significant over the decades. To increase plastics and various material circularity, leakage of plastic from the human technosphereneeds addressing via countermeasures that would include a spectrum of policy interventions, effective implementation of rules, good depository schemes and economic instruments. Greater scope has arisen for a combination of informal and organized systems to work for collection of plastic waste and recycling arrangements, introducing new product designs to enable recycling and other novel treatment and disposal options, besides promotion and propagation of alternatives including bioplastics.

Objective:

Understanding insights from countermeasure project for Marine plastic litter in India and reflecting on the need for development of Regional plastic leakage Model to overcome barriers regarding Database construction and analysis. Further exploring policy initiatives and roadmap for action ahead.

The session shall cover the following topics:

- Insights from the Countermeasure project and Webinar sessions 1-5.
- Integration of dry waste collection in the plastic waste value chain, Resolving Key Barriers to plastic littering and plastics recycling, Commitments and initiatives to Plastics recycling by FMCG Sector.
- Innovations occurring towards plastics substitutes / alternatives and product design regarding conservation in applications of plastics and polymers.
- Development of Regional Model for Plastic leakage scenario for Mekong Region, and Agra, Allahabad in India.
- Status of plastic waste management and policies and amendments and single use plastic ban in different states in India.
- Awareness and perceptions in society regarding plastics value chain and waste issues and prospective methodology for future surveys for behavioural change achievement.
- Available Data aspects and insights, Additional Data Needs, Correlation requirements and Theoretical and Empirical model building dimensions ahead.
- Towards roadmap and strategy for policy measures, industry response and new initiatives for consideration.

Expected Outcome:

Recommendations for strengthening application of existing policy measures and countermeasures for marine plastic litter adoption and adaptation in various states of India and identification of potential new policy measures / instruments and project designs for implementation plastics containing products design and robust plastics waste management for achieving circular economy objectives.