

Proceedings of the Group Discussion on ‘Plastic Menace’ held on December 02, 2024
at the Camp Office of the Institute of Applied Sciences (IASc), Prayagraj

A Group Discussion on ‘**Plastic Menace**’ was organized by IASc, Prayagraj on the occasion of the *National Pollution Control Day* (December 02, 2024) to exchange insights on the growing menace of *Plastic Pollution* and its detrimental environmental/ health impacts; and evolve an innovative execution plan/ strategy towards addressing this problem by suggesting / exploring potential alternative(s) for curtailing the use of single-use plastic and thereby improving the well-being of society.

The following were present:

1. Dr. B. P. Agarwal - President
2. Prof. K.P. Singh - Vice President
3. Prof. D. K. Chauhan - Treasurer , In Chair
4. Prof. Alok Srivastava - Foreign Secretary
5. Dr. S.A.M. Meesum - Member, Executive Body
6. Dr. Mohd. Masood - Member, Executive Body & Scientific Advisor
7. Dr. Niraj Kumar - Member, Executive Body & Founder Fellow
Fellows/Members
8. Dr. V.C. Srivastava - Scientific Advisor, IASc
9. Dr. Anees F Rizvi - Fellow & Officer In-charge
10. Ms. Archana Pant - Fellow & Scientist
11. Dr. Sanjay Srivastava - Senior faculty, Tagore Public School, Prayagraj
12. Dr. Prasanna Ghosh - Senior faculty, Anglo Bengali Inter College, Prayagraj
13. Dr. Lal ji Yadav - Principal, Colonelganj Inter College, Prayagraj;
President, District Science Club, UPCOST
14. Mr. Sachin - Coordinator, Swadesh Sewa Sansthan(NGO,Prayagraj)
15. Mr. Himanshu Pandey - Mem., Swadesh Sewa Sansthan(NGO,Prayagraj)
16. Ms. Archana Shukla -do-
17. Mr. Utkarsh Pandey -do-
18. Mr. Shorya -do-

The discussion commenced with the formal welcome to all by Dr. Niraj Kumar, who also briefed about the IASc and its activities since its inception. He introduced the distinguished members of the Executive Body/ Fellows of IASc to the volunteers of Swadesh Sewa Sansthan (NGO at Prayagraj), invited for the purpose; and also briefed about Prof. Alok Srivastava, Panjab University, Chandigarh and Foreign Secretary IASc, who was the Chief Guest in the Group Discussion. In his *Opening*

Remarks Dr. Kumar gave a brief overview of the overuse of plastic containing pollutants/ toxic/carcinogenic chemicals and their scientifically proven health risks such as hormonal imbalance, endocrine dysfunction etc. leading to spread of several diseases including cancer, disability neurodegenerative diseases, cognitive impairment etc.

Thereafter, a group discussion (Chaired by Prof. D.K. Chauhan and coordinated/moderated by Dr. Masood) was kicked off by Prof. Alok Srivastava who delineated about the abundant use of plastic now-a-days stating that most of the plastic pollution is generated by single-use products such as bottles, caps, shopping bags, cups and straws that gets accumulated in the environment; and stressed upon the urgent need to address its hazardous impacts by minimizing or avoiding its use. He briefed on such concepts as eco-friendly and sustainable organic food, renewable energy etc. Referring to the Mission - LiFE (a public movement by Govt. of India to mobilize individuals), he elucidated how the renewable energy relates to LiFE and proposed to adopt a life style which requires restricted use of plastic by utilizing more eco-friendly products, thereby, reducing its consumption in day-to-day life. He portrayed some statistics on total plastic waste generation, total plastic consumption (discarded as waste) and generation of mismanaged waste per year by India adding that India is the second biggest country after Philippines causing plastic pollution of the ocean; and occupies the third position in the top five countries after China and USA in plastic waste production. While giving the concept of 'Plasticizers', the chemicals found in the plastic having hazardous effects on human body, Prof. Srivastava also mentioned about the Waste-To-Energy (WTE) plants which destroy/burn up multiple waste for the production of energy, established by the Govt. of India and emphasized on the need for the public awareness on this very aspect. Defining the role of younger generation/ students and calling them as the 'citizen scientist', he appealed to the volunteers of Swadesh Sewa Sansthan to join hands with IASc in this endeavour for disseminating the message, 'Think Globally, Act Locally' in the holy city of Prayagraj.

The distinguished scientists viz. Prof. D.K. Chauhan (In-Chair), Prof. K. P. Singh, Dr. Mohd. Masood and Dr. S.A.M. Meesum also put forth their views on the visible health impacts of plastic and suggested to launch a *Mass Awareness Campaign* towards minimizing the use of plastic and growing more trees/plants all across the city. There was an extensive discussion on the replacement and minimal use of plastic in daily life and it was proposed that the *Cloth Bags* may be endorsed/promoted as a potential alternative to plastic bags in terms of their cost effectiveness, reusability, durability, eco-friendliness and versatility. The cloth bags must have the display label, comprising scientific content (about plastic menace) and impactful slogans (encouraging people's behaviour towards restricting the use of plastic) to grab people's attention.

The members opined that *Mahakumbh-2025*, scheduled to begin on January 2025 in Prayagraj is not only the hub of spirituality, but also of environmental stewardship; therefore, it could provide a platform and offer a significant milestone for mass awareness and promoting such eco-friendly alternatives to curb 'Plastic Pollution'. The students/ volunteers from the *Swadesh Sewa Sansthan* while mentioning about the efforts made by their organization for minimizing the use of plastic, expressed their concern to support IASc in this mission and willingly accepted the task of collecting the cloths, making the bags and distributing them among the masses. They also showcased a few small palatable cups/containers, made up of refined wheat flour and other grains for drinking tea etc.; which could be a better option/ an eco-friendly alternative to the plastic cups.

The members unanimously agreed upon to create more and more awareness by organizing scientific awareness programmes/activities on the *Plastic Pollution* at the site of *Kumbh Mela* as well as different places of the city (Prayagraj); and suggested that such awareness could also be generated in the spiritual gatherings in *Kumbh Mela*, wherein, the cloth bags could also be distributed. Further, there has to be wide media/press coverage of such events for which the nodal officers representing Inter Colleges of the city may coordinate with the IASc for executing awareness campaigns/ activities and getting the proceedings published in the local dailies.

Future plan of Action:

The group discussion emerged with the following recommendations for developing an innovative strategy/ execution plan towards reducing plastic use/waste, in joint collaboration with *Swadesh Sewa Sansthan* (SSS):

1. Making/ Stitching of cloth bags for distribution among the masses

The volunteers of SSS were assigned the task of collecting the cloths and stitching the bags. The scientific information/ slogans (to be printed) for the content label/ display would be generated by the IASc. The cost incurred may be taken care of by the Members of the Executive Body, IASc, if required.

2. Selection of suitable space/site (location) for holding awareness programme(s)

The volunteers of SSS were suggested to select suitable site(s) in and around the city as well as in the *Mahakkumbh* area for spreading public awareness. Prof. K. P. Singh and Prof. D. K. Chauhan were requested to explore the feasibility by reaching out their contacts/connections, if possible and guide them in this matter.

3. Organizing awareness programmes in the city and getting optimal media coverage for wider dissemination of the message

Dr. Sanjay Srivastava, Dr. Prasanna Ghosh and Dr. Lalji Yadav, the Coordinators, *Science Awareness Programmes*, were requested to coordinate with the schools/colleges/press media for organising the programmes, and the press-release (pre and post) of the events in the local dailies viz. Dainik Jagran, Amar Ujala, Hindustan, etc. Dr. Lalji Yadav was given the responsibility to get the letter circulated in all the Inter Colleges of city for organising Awareness Programmes; Dr. Niraj Kumar was requested to prepare the draft. The scientific/technical guidance as well as the resource persons for awareness programmes would be provided by the IASc.

4. Science-Society /Research Project

A brief discussion was also held on the Science-Society Projects being formulated by IASc on the societal issues. The members unanimously agreed to formulate one mega project on *Plastic Pollution* for which Prof. Alok Srivastava was requested to be the Co-PI and Dr. Masood was requested to be the PI. Further, it was also noted that there are three other projects which are to be prepared/submitted by Dr. A. F. Rizvi, Dr. Vinita Puranik and Ms. Archana Pant, independently on behalf of the institute. Dr. Kumar requested all four PIs to kindly expedite the project drafting, so that these could be sent to the respective agencies at the earliest (latest by Feb. 2025).

5. National Symposium on Impact of Pollution and Health Issues

Tentatively, it was decided to organise such a conference, if possible.

In the end, the members present thanked Ms Archana Pant for re-joining the institute, and expressed that her association will once again be fruitful for the growth & development of the institute. Dr. A, F. Rizvi was thanked for very apt arrangements for today's meeting.

The discussion ended with a vote of thanks to Prof. Alok Srivastava for sparing time and sharing his vast knowledge and expertise on the subject to initiate a socio-scientific & logical discussion on the most burning topic (Plastic Menace), motivating the young volunteers of SSS; and to all the distinguished members for their valuable scientific inputs.



A Group Discussion on Plastic Menace at IASc, Alld. on Dec. 2, 2024

