#### **SUMMARY REPORT**

# **ECO: 2022**

# **NATIONAL CONFERENCE ON AIR - WATER - SOIL**

23-24 September 2022









Organised by

Bharat Seva Pratisthan (Regd.) Faridabad

in association with

**J.C.** Bose University of S&T, YMCA Faridabad Green India Foundation, Ballabhgarh



# Conference Inauguration on 23 Sep. 2022 at 10.00 AM

Conference was inaugurated by **Sh. Krishan Pal Gurjar**, Minister of State GOI, in presence of Dr. Rajinder Singh, Waterman of India, and Sh. Rakesh Jain: Sah-Pramukh Prayavaran Gatividhi and others by lighting the lamp.

The programme started with blessings of lord Ganesha by singing and dancing Vandna

by a student of JCBUST.

Welcome address was given by **Prof. S K Tomar**, VC, J C Bose University of S&T, Faridabad.

Conference Introduction was given by **Sh. Shri Krishan Singhal**, Chairman Bharat Seva Pratisthan.

Theme address was delivered by **Sh. Rakesh Jain**, RSS Pracharak and Sah-pramukh of Prayavarn Gatividhi.

# Salient point of inaugural function

**Prof. S K Tomar** in his address emphasised the importance of environment and co-related it with our old Sanatan Traditions and Values. He stated that entire world is facing the impact of climate change and global warming. He



mentioned that as it is raining cat and dogs during the conference at the end of September month, perhaps this is the clear cut and live example of impact of climate change.



Sh. S K Singhal quoted verses of Geeta where Lord Krishna himself said that he is Peepal Tree, he is Holy Ganga, he is Himalaya and he is spring season. Now the question arises, are we adopting and following Lord Krishna's declaration and directions about protecting Tree, Rivers, Himalayas and Ecology and Environment? By organizing the conference, we are trying to create awareness among scientists, engineers and others to develop eco-friendly technology and impress upon, Government to enforce regulations, industrialist to take care of effluents (air-water) by properly treating them and to general masses to follow guidelines to protect Environment, Conserve Water, Soil and Plant more and more trees and we should also make it a regular habit.

We also wish to motivate farmers to follow the desired pattern of crops to conserve water and stop overdosing of chemical fertilisers and pesticides in order to protect soil and water. The Theme address was given by **Sh. Rakesh Jain** National Sah-Pramukh Paryayavaran Gatividhi. He deliberated the issue of water conservation in old structures and correlated, it with our religious practices as we considered water as divine. He also deliberated about the mountains of solid waste that is built up in all major cities in India. These mountain of waste is the source of methane



to pollute air, water and large source of soil pollution. He also discussed the problems of plastic waste and said that if it is not stopped our environment will get damaged irreversibly.

Chief Guest of the events **Sh. Krishan Pal Gurjar**, Minister of State Heavy Industry and Power, Government of India told that Climate Change and Global Warming both are effecting the environment adversely. To overcome this central power sector undertakings have planted over 1.45 crore trees to undertake afforestation and environmental measures to reduce carbon dioxide in the atmosphere, which is one of the largest afforestation efforts in the country. In fact the temperature in the area around NTPC's Ramagundam station has come down. He also mentioned that our efforts are on to revive the Badkal Lake in Faridabad and hopefully will be revived soon by Haryana Government.



Vote of thanks was given by the **Dr. Jagdeesh Chaudhry** Chairman GIFT. He thanked the Minister, key note speaker and all invitees and wished that deliberations will be successful in creating awareness on air- water and soil environment protection.

# First Technical Session (23 Sept. 2022, First Day)

Session was focused on Air Quality, its Protection, Monitoring and Maintenance

The session was chaired by **Prof. Raj Kumar Mittal** VC, Chaudhary Bansilal University, Bhiwani, Haryana and Coordinated by **Prof. Arvind Gupta.** 

The first talk was delivered by **Prof. Harsha Kota of IIT Delhi** on air pollution and he presented that air pollution is the main cause of cardiovascular diseases in human beings. The second speaker in this session was **Sh. P K Gupta scientist from Central Pollution Control Board** and he discussed about National Air Quality Monitoring work and National Clean Air Programme to curb the air pollution by the Central Pollution Control Board. (CPCB).





# Second session was on Water Conservation, Quality and Scarcity



The session Chaired by **Prof. J P Sharma** VC, Jammu Agriculture University, Co-Chaired by **Dr. K K Gupta** Principal Aggarwal College and Coordinated by **Dr. Jagdeesh Chaudhary**.

The first speaker of this session was **Prof. Brajesh Yadav**, Head of the department of Hydrology department, IIT Roorkee. He discussed about conservation of water. The objectives of his discussion was to preserve water for future and recharging of underground water in semi-arid region of India and also managed aquifer recharge in saline region.







The Second speaker of this session was **Dr. Rajendra Singh**, **Water Man of India**. In his talk, he correlated nature and the four Yuga of Indian literature. He mentioned that there was no climatic change in Sat-Yuga and first draught was reported in Treta-Yuga. In Dwapar-Yuga men were loving cows and nature and they were protected from floods by lifting Goverdhan Parvat. In Kalyuga, we are wasting all the resources of the nature by exploiting and polluting. He emphasised that AAPHI BRAHMASMI means water is life, water is God and Water has created our planet.

# **Third Session on Soil Protection**

The session Chaired by **Prof. Ashok Sariyal** Ex VC, Palampur Horticulture University and Coordinated by **Prof. Sunil Parikh**.

The first speaker of this session was **Prof. J P Sharma** VC Jammu Agriculture University and he spoke about the soil pollution and its remedial aspects in Indian scenario. He also spoke about the digital agriculture, sensor based agriculture to measure the quality of the soil and emphasised on organic farming to preserve the soil.

The second speaker of this session was **Dr. Praveen Kumar** Director Namami Gange Project, Government of India. He presented about the sewage generation and its treatment in India and discussed key schemes of Government for water and waste water treatment. He also told about the status of Namami Ganga Mission.





The third speaker was the **Sh. Amarnath**, a social activist working for Himalaya water springs. He said that Himalaya is the tower of water and about 50% water comes through the Himalayan springs in Ganga basin.

# Technical Session (24/09/2022, Second day)

First session was on Biodiversity and Environment Session was Chaired by Prof. A K Mahajan, Dean Central University Dharamshala, (HP) and was coordinated by Sh. Gyanendra Rawat.

The first speaker of this session was **Prof. Dipankar Saha**, Chair Professor, MRIIRS and veteran scientist from CGWC Government of India. He talked about fresh water habitats, ecosystem, species, biodiversity and threats to biodiversity in India. He focused on



main reasons about over exploitation of water resources. He discussed about degrading of ecosystem, water as ecosystem service, disaster risk reduction, drinking water supply, water management for dams, and role of wet land water management. He also deliberate India's population data with water resources, global leadership of India as a ground water, sustainability of water resources and artificial recharge of water in ground etc..

The second speaker of the session was **Prof. Rajbir Singh**, Director, ICAR-ATARI, Ludhiana. He discussed about the role of agriculture in environmental degradation, climate change and biodiversity. He said the relation between people and nature is complex. His talk majorly focused on agriculture nutrition, agriculture action plan, CO<sub>2</sub> emission, sources of air pollution in India, crop residue, farm equipment's, awareness program, like Kisanmela, and future agriculture etc.

# **Second Session - Successful Case Studies**

The session was chaired by **Prof. Rajbir Singh**, and coordinated by **Prof. Brijesh Kumar** MRU.

The first speaker of this session was **Dr. Viral Patel** Scientist, **Dev Sanskriti University**, **Haridwar**. He presented valuable insights of Yajna for health and environment. In his case study, he explained how Yajna is beneficial in improving the air quality with the experimental findings. He also told about Ayurveda, Yajna is an ancient herbal therapy, herbal fumes, anti-microbial properties, thyroid diabetics, medicinal smokes, clinical case studies, and constituents of Hawan-samagri etc.



The second speaker of this session was **Dr. Atul Jain** from **Deen Dayal Sodh Sansthan** (DRI) who talked on models of rural development. His talk majorly focused on climate, social, environment, technology requirement, Govt. policy on water etc. He also gave the beautiful examples of water conservation in Jaisalmer and Karnataka.

#### **Third Session - Successful Case Studies**

The session was chaired by **Prof. Vivek Kumar**, IIT Delhi, and coordinated by **Dr. Sonia Bansal**.



The first speaker of this session was **Dr. Prashant Kumar**, Chief Research Manager (RND), Indian Oil-RND Faridabad. He presented two case studies with the experimental data about the AQI. The first case study was on estimation and abatement of volatile organic compounds and its impact on health. Second study focused on the valuable data about air/water pollution, air quality monitoring, air quality management cycle and AOI calculation etc.

The second speaker of this session was **Dr. Ashish Das**, GM, NHPC. He presented a case study on environmental management in hydro projects. In his case study, he explained methodology and salient features of Parvati Hydro Project and Catchment Area Treatment (CAT) plan for the year 2021-2022. He also told about the various norms, schemes for granting the hydro power projects.



The third speaker of this session was **Sh. Gautam Rana**, Shivalik Prints Ltd and he explained about the proper utilization of natural resources, industrialization, population, solar plant and energy etc. He also talked about the benefits of water conservation in different applications.

The fourth speaker of this session was **Sh. Nirmala Mehendale** and he discussed about methodology and process of natural waste water treatment system. In his lecture, he explained about treatment design, collection and screening, anaerobic upflow reactor, LECA BEDS, chlorine dosing, operation and maintenance etc.



# Fourth session - Legal aspect on Ecology and Environment

The session was chaired by **Dr. Sunil Garg**, Registrar, JCBUST University and coordinated by **Sh. Deepak Thukral**.



The first speaker of the session was **Sh. A D N Rao** Senior Advocate Supreme Court, who spoke on the topic - <u>Courts on Forest Wild Life: Legal and Policy Overview</u>. He explained nicely about various acts such as environment protection act, waste water act, Punjab land preservation act and Indian forest act 1927 etc.. He also deliberated on the importance of Trees, Forest and water bodies. He discussed Supreme Court directions on forest, water bodies and air pollutions in NCR region. He also discussed about working of various NGO's for saving animal life and environment etc. He also explained the various legal issues and challenges for development of the sustainable ecosystem.

The second speaker of this session was **Dr. Pabhakar Verma**, **Vice Chairman of** Haryana Pond Authority. He showed glimpses of works done in Haryana for restoration of ponds in villages. He explained objectives of Pond Authority of Haryana. He also discussed pond data management system, numbers of ponds in rural and urban areas, geo mapping and geo tagging of ponds, annual action plan and monitoring information system etc.. He enlightened the audience about the Amrit Sarovar mission, initiated by Govt. of Haryana. Under this scheme, around 75 ponds will be developed in each district of Haryana.



**Parallel Technical Session:** About 100 technical research papers were received and some of them were presented in parallel Technical Sessions during the conference.

Valedictory Session on 24 Sep. 2022 at 4.00 PM



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Valedictory session of the conference was chaired by Dr. Anil Joshi, a prominent environmentalist, Padma Vibhushan and Padma Shree awardee. The Valedictory address was delivered by NGT Chairman, honorable Justice Sh. Adarsh Kumar Goyal. The special guest of the session was Sant Sh. Balbir Singh Seechewal, an eminent environmentalists and Padamshri awardee and Rajya Sabha member from Punjab.

The guest of honour was Sh. P Raghvendra Rao, Chairman HSPCB.

The session was coordinated by Sh. Deepak Agarwal.

The conference report was presented by **Prof. Arvind Gupta**, Organising Secretary of ECO-22.

Chief Guest **Dr. Anil Joshi** spoke about the importance of Himalaya's in protecting, water and soil pollution. In his lecture, he said that we must focus on Gross Environmental Product (GEP) and not only on GDP. He majorly focused on sustainable technologies for the development of our eco system. He also told about his scheduled bicycle journey in near future from Mumbai to Dehradun to create awareness in general masses about environment protection.







Guest of houner **Sh. P Ragvendra Rao** Chairman Haryana State Pollution Control Board, he talked about their experience in controlling the air pollution of NCR region. During his studies, they worked at the ground level and collected data and submitted a report to Government. He also explored the various challenges and issues on controlling the air/ water pollution and informed the audience how we all can control pollution by worked together.



Sant Sh. Balbir Singh Seechewal, who cleaned about 180 km long Kali Nadi in Punjab, said, "Happiness of the world lies only when we treat Air as Guru (teacher), Water as Father and Soil as Mother." Further he added "If there is life, we can earn money, but without life money is of no use" and "Whatsoever we sow, that we reap." He told though "Good life is a fundamental right but it cannot be without pure air, water and soil."

According to him, "all political parties shall declare their green manifesto and shall be voted as per their environmental commitments." **Sant Seechewal** made us aware "To keep the environment First as Life Force, and he also advised all of us live with controlled behaviour and shall act as it's component, not it's master." He himself has set an example by installing a treatment plant in his own village for recycling waste water to be reused for irrigation.



The Valedictory address given by honorable **Justice Sh. Adarsh Kumar Goyal** Chairman National Green Tribunal (NGT). During his Speech, he enlightened the participants about the importance of ecological balance, physical activity/exercise like cycling etc.. He informed about the various steps, duties and initiative taken by the NGT to protect the environment from pollution. Further, he told that saving the environment is not only the Government duty but common people should come forward and support the government so that the future generation can breathe in a fresh air and pollution free environment in all aspects.



Vote of Thanks was given by **Sh. Shri Krishan Singhal** and he thanked to all who participated in this conference and stressed about the need of action orientation to protect environment from Air -Water-Soil pollution.

# Bharat Seva Pratisthan, Faridabad RECOMMENDATIONS - ECO 2022

Recommendations of ECO-22 (National Conference ECO-22 on Air-water and soil) held on 23-24 September 2022.

- 1. There is need to create environmental awareness in School, Colleges, Universities and masses in general. NGO's with the help of administration can do the same effectively.
- 2. Mass campaign should be organized for tree plantation and minimum ten trees per person per year should be planted to take care of polluted environment.
- 3. Enforcement of ban on the single use plastic effectively. However alternate packaging Eco-friendly material should be made available and also promoted by providing incentives by the government.
- 4. Efforts should be made to promote Eco- Friendly public transportation system.
- 5. Pollutions should be checked by polluting vehicles. Battery power vehicles should be promoted to the best possible.
- 6. Regular AQI monitoring should be done, particularly at petrol pumps & VOC emission should be controlled during supply chain of Petroleum products.
- 7. Development of bicycle and pedestrian tracks on the side of roads for promoting cycling and walking.

# **AIR Pollution Control and Quality Improvement:**

- 1. Dust should be checked during construction of roads, buildings and other civil works by following proper regulations and by carrying uninterrupted, timely completion of such activities.
- 2. Industrial flue gases should be regularly checked and monitored.
- 3. Vehicular emission regulations should be enforced effectively.
- 4. Organic waste, crop waste burning (though banned, but not enforced) should be strictly enforced. Public and NGO participation may be considered.
- 5. Diesel generator sets should be avoided in urban areas.
- 6. Develop dense forests in urban and rural areas. Tree plantation be made mandatory for all students and teachers of all educational institutional and shall made be part of curriculum/examination.
- 7. Enrichment of forest cover of Haryana and NCR region, specially Aravalli forest shall be enlarged.



#### **Water Conservation and Protection from Contamination**

- 1. Crop pattern should be regulated and also by regularly taking awareness campaign and giving monetary incentives to the farmers. Alternate crop be suggested through government machinery and Krishi Vikas Kendras (KVK).
- 2. Minimise use of chemical fertilisers and pesticides by promoting organic alternatives. Incentives may be considered to growers by providing proper market place.
- 3. Enforcing proper treatment of effluents from industries by doing real time Monitoring by respective Govt. or private agencies
- 4. No sewage should be disposed off in water bodies (river or ponds) without proper treatment and testing. Data base should be maintained.
- 5. Rainwater lines should be installed, cleaned and proper networking be done to avoid wasting of rain water
- 6. Rainwater harvesting be made mandatory. Proper cleaning should also be enforced.
- 7. Use of detergents be discouraged. Bio detergents be promoted.
- 8. Before every rainy season, all drains (Canals, rajwahas etc), sewerage system, rainwater drains and water bodies should be properly cleaned and maintained.
- 9. Storage of rain water should be considered by planning rainy wells across cities and rivers.
- 10. Water conservation should be done by creating awareness. PPP Mode may be used. Misuse of water in city's colonies should be reduced.
- 11. Real time water quality of rivers, ponds, canals etc. be monitored on regular basis.
- 12. Large dams shall be converted to check dams and eco-flow of rivers shall be maintained.
- 13. River Yamuna and its tributaries, their catchment area, water bodies like ponds, shall be identified, notified and demarcated and need to be preserved and increased.

# **Soil Protection from Pollution**

- 1. Crop pattern be decided and followed by farmers. Their education and awareness should be given priority.
- 2. Use of pesticide and chemical fertiliser should be discouraged by providing incentives for use of organic fertiliser & pesticides.
- 3. Proper collection, segregation and treatment of solid waste should be done.
- 4. Solid waste should not be dumped in forest area land and preferably be treated immediately after collection and segregation. Ash may be used in landfilling and by planting trees.
- 5. Construction waste should be recycled properly 100%.
- 6. Soil and Land pollution legislation should be revised and made stringent.

# Organiser, ECO - 22 (23-24 Sept. 2022)

#### Patron

Prof. S. K. Tomar (Vice Chancellor, JCBUST)

Sh. Rakesh Jain (Paryavaran Sah-Pramukh)

Dr. Rajendra Singh (Water Man of Bharat)

Sh. Shri Krishan Singhal (Chairman, BSP)

### **Organising Commiflee:**

Prof. Sunil Garg (Registrar, JCBUST)

Sh. Deepak Agarwal (President, BSP)

Dr. Jagdeesh Chaudhary (President, GIFT)

Prof. Arvind Gupta (JCBUST)

Sh. Kaushal Goyal (BSP)

Sh. Rakesh Gupta (BSP)

Dr. Sonia Bansal (JCBUST)

Sh. Gyanendra Rawat (GIFT)

Prof. Sunil Parikh (NIFTEM)

Dr. Amit Goswami (ICAR)

Sh. Deepak Thukral (BSP)



#### **Bharat Seva Pratishthan (BSP)**

A Faridabad based NGO which works with a mission, service to humanity in holistic manner. It is registered under 12A and 80G of income tax act. It organises health check-up camps, run free Ambulance services, Tree plantation drives, Environmental awareness programme and support in education for needy students and also support other NGO, working for service of the peoples. It also promotes research in ancient Bhartiya knowledge and value system. The sole idea is to live with nature and nurture Eternal Bhartiya wisdom and values for piousness of humanity.

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