

R-20/1/2022-PRPP(RU-3)
NATIONAL HUMAN RIGHT COMMISSION

Dated: 06.05.2022

Minutes of Meeting of the Core Advisory Expert Group on Environment, Climate Change and Human Rights on Right to Clean Air and Water Held on 23rd March, 2022 Via Hybrid Mode

Justice Shri Arun Mishra, Hon'ble Chairperson, National Human Rights Commission chaired the meeting. List of participants is **annexed**.

Inaugural Session

2. The meeting started with a welcome address by **Shri H.C. Chaudhary**, Joint Secretary, NHRC. He gave a brief overview of the current status of air and water pollution and environmental degradation in the country and its impact on human rights. He also explained in brief the agenda items for the meeting and requested the participants to suggest pragmatic and implementable solutions to address the issue of environment pollution and natural degradation.

3. **Shri Bimbadhar Pradhan**, Secretary General, NHRC, in his address highlighted the national and international reports on vulnerability of India's population to climate change. He stated that as per the reports, India is the one of the five most affected countries by climate change. He also mentioned that as per the WHO report, 24% of the all deaths in the world are attributed to environmental degradation, including air and water pollution. He also drew attention to the issue of climate induced displacement and migration along with other issues and called climate change and environment degradation a major human right challenge of the current era.

4. **Justice Shri Arun Mishra**, Hon'ble Chairperson, NHRC, in his inaugural address stated that India, in spite of having a very elaborate legal and policy framework, is suffering from the serious problem of air and water pollution and natural degradation. As per a recent report, out of 100 most polluted cities in the world, 64 cities are in India. 102 cities in India do not meet air quality standards prescribed by the Central Pollution Control Board and even the capital city of Delhi has capacity to remove only 55% of waste. All this indicate poor implementation of environmental laws in the country. He stated that in-spite of very stringent provisions, including imprisonment for a term upto seven years along with a fine, in reality, very few complaints are filed against polluters. Even in the cases where complaints are filed, due to poor quality of investigation and slack follow up, very few result in conviction. Directions issued by the Hon'ble Supreme Court have also not been implemented fully. He noted, every power conferred on any authority under any statute casts a duty on such authority to exercise such power to achieve the intent and purpose for which such power has been conferred. Non exercise of power by the Pollution Control Boards to get the polluters punished amounts to dereliction of duty. He noted with concern that even after spending

crores of rupees, it has not been possible to clean river Ganga. He stated that time has come to take urgent measures to identify and plug gaps and loopholes in implementation of environmental laws and policies and to closely supervise and monitor working of the Pollution Control Boards as they have apparently failed to perform their assigned functions. He emphasized the need to make working of Pollution Control Boards more transparent and also to ensure that information and data relating to pollution and environment degradation are readily available to all citizens to keep a check on the polluters.

5. After the Inaugural Session, discussions were held in four Technical Sessions. A brief summary of discussion held in each of these sessions is given below.

Technical Session 1: Gaps in Implementation and Monitoring of Laws, Judgments and Schemes/Initiatives Concerning Environment, Climate Change and Human Rights

6. **Shri Neelesh Kumar Sah**, Joint Secretary, Ministry of Environment Forest and Climate Change initiated the discussion by emphasizing that both climate change and human rights are international issues that require international cooperation. It is important to establish a linkage between the two issues to be able to act upon it. As climate change knowledge expanded, it was defined as an anthropogenically caused global problem by fossil fuel burning and elevated levels of greenhouse gases emission in the atmosphere. The global outlook was reflected in the first assessment of the global IPCC (Intergovernmental Panel on Climate Change) in 1991, which manifested the United Nations Framework Convention on Climate Change (UNFCCC) with the objective of stabilization of greenhouse gases in the atmosphere at a level to prevent dangerous levels of such gases in the climate system. Combating issues that pertain to and arises from climate change is a global responsibility and are deliberated within the UNFCCC, Kyoto Protocol and Paris Agreement Framework. He also mentioned that UNFCCC does not include human rights in the context of climate action. Under the Paris Agreement, human rights have been identified in context of acknowledging that climate change is a common concern of humankind and that when taking action at climate change, respective obligations of human rights must be considered and respected. He stated that the current climate regime is governed by the Paris Agreement and it is based on the voluntary commitments by parties as their nationally credible contributions and establishes a set of procedural commitments on the parties which are : Commit to prepare, communicate and maintain successive NDCs (Nationally Determined Contributions), pursue domestic mitigation measures aimed at achieving the NDCs and regularly focus on implementing the NDCs. India's NDCs have 8 goals, including 3 quantitative goals, that is, reduction in the emission intensity of the GDP by 33-35% by 2030 from 2005 level, achieve about 40 % of cumulative electric power installed capacity from non-fossil fuel based energy sources by 2030 and having an additional carbon sink of 2.5-3 billion tonnes of carbon dioxide by 2030.

7. He also highlighted the achievements of the India by stating that India has achieved 24% reduction in emission intensity, which is clearly seen as a consistent increase in the

GDP. We have been able to establish a decoupling of development with the emissions. As far as cumulative electric power installed capacity is concerned, as per the latest reports, we have achieved 40% of the cumulative electric power installed capacity from non-fossil fuel based sources by now. He stated that the cornerstone of the discourse on climate change is Equity and Common But Differentiated Responsibility (CBDR) and respective capabilities, which are part of the Paris Agreement and have origins in the framework convention.

8. According to the Paris Agreement, the developed countries are required to take lead in climate action, in terms of mitigation, adaptation and means of experimentation and support towards finance, technology development and capacity building. Office of High Commission for Human Rights (OHCHR) report, 2009, acknowledged that physical impacts of global warming cannot easily be classified as human rights violation. Within our country, the National Action Plan on climate change is the guiding strategy for NDCs. There are 9 missions under the NAP for climate change, spanning across various sectors of the economy. To support this, all the States also have State Action Plan of climate change, guided by Prime Minister Council on Climate Change.

9. **Dr. Prashant Gargava**, Member Secretary, Central Pollution Control Board (CPCB), begin with tendering his apology for not attending the meeting in person. He briefed the august gathering about the vast mandate of the CPCB, constituted under the Water (Prevention and Control of Pollution) Act, 1974. The Act prescribes various functions for the CPCB at the apex level and State Pollution Control Boards at the state level. The main functions of the CPCB are to advise the Central Government on any matter concerning the improvement of the quality of the air and the prevention, control and abatement of air and water pollution; to plan and cause to be executed a nation-wide programme for the prevention, control and abatement of air and water pollution; to provide technical assistance and guidance to the State Pollution Control Boards; to carry out and sponsor investigations and research related to prevention, control and abatement of air pollution, and to collect, compile and publish technical and statistical data related to air pollution; and to lay down and annual standards for the quality of air.

10. While giving an overview on the challenges faced by the CPCB and the progress that has been made so far, Dr. Gargava, informed the Core Group Members about the activities and projects currently carried out by the CPCB to improve the air and water quality in the country. Its National Air and Water Quality Monitoring Network provide environmental quality data, which are vital for formulating policies and guiding actions. He further informed that besides setting up of ambient air quality standards, water quality criteria and sector specific effluent & emission standards, numerous technical documents and guiding manuals have been developed. Advance technologies and IT tools are being put to use for constant improvement in our efforts. Many e-portals and social media platforms are used for quick sharing of information. Real-time air quality monitoring and dissemination of Air Quality Index (AQI) is being done for more than 80 cities. Seventeen highly polluting industrial sectors and grossly polluting industries along the river Ganga have installed continuous emission and effluent monitoring systems, aimed to facilitate self-regulation among industries

and strengthen surveillance by pollution control boards. Zero liquid discharge through recycling and reuse of treated effluent wherever feasible, co-processing of hazardous waste, recovery and reuse of materials from waste are being promoted for resource conservation and pollution prevention. Even after these efforts, gaps and challenges remain. The growing population, rapid urbanization, depleting natural resources, multiplicity and complexity of polluting sources and inadequate public awareness & participation are some of the factors that make it even more challenging. Dr. Gargava further informed that a large number of towns and cities with unacceptable levels of air pollution, more than 350 polluted river stretches, and management of municipal solid waste, biomedical waste, e-waste & hazardous chemical waste are some of the areas that require sustained efforts from all the stakeholders. Concluding his presentation, Dr. Gargava said that citizen's active involvement is extremely important for this endeavor, and CPCB look forward to support of all concerned.

11. **Dr. M. C. Mehta**, Founder of the M.C. Mehta Environmental Foundation, at the first instance, applauded the Commission for taking up this issue of grave importance. He shared a glimpse of his professional journey with the Core Group Members. Dr. Mehta filed a Public Interest Litigation (PIL) at India's Supreme Court against 89 defendants, in an incident of fire in the National River, Ganga at Haridwar. The existence of a hazardous inflammable chemical layer over the waters was determined to be the cause of the fire. The Court had considered the matter to be of paramount importance, but the case's enormous magnitude, i.e., the length of the river, proved to be problematic. Dr. Mehta quoted another petition under Article 32 of the Constitution of India - in public interest –that was filed by S. Jagannathan, Chairman, Gram Swaraj Movement, a voluntary organization working for the upliftment of the weaker sections of society. The petitioner has sought the enforcement of Coastal Zone Regulation Notification dated February 19, 1991 issued by the Government of India, stoppage of intensive and semi-intensive type of prawn farming in the ecologically fragile coastal areas, prohibition from using the waste lands/wet lands for Prawn farming and the constitution of a National Coastal Management Authority to safeguard the marine life and coastal areas. Dr. Mehta was astonished to know that the effluents from aquaculture farms are discharged directly/indirectly into the coastal waters practically without any treatment. For disposal of solid waste, on the other hand, open dumping and land filling is a common practice. Concluding his remarks, Dr. Mehta stressed upon the need for the continued and concerted efforts if at all we want to give clean air and water to the next generation.

Technical Session 2: Best Practices in Environment Management in India and Abroad and Replication Thereof

12. **Smt. Padma S. Rao**, Chief Scientist and Head, EAPI Division, CSIR-NEERI, Nagpur, is working as senior scientist for the last 20 years in Air pollution control Division. Having extensive on-field experience, well versed with the persisting issues and challenges, creditable expertise in designing and implementation of air pollution control system, Smt. Padma Rao stressed upon controlling the sources of air pollution, e.g., the toxic raw materials used in various industries need to be identified right at the stage of issuing licenses to such industries, so that the labour could be saved from exposure to the toxins. At the same time, how the

industries are planning to dispose off the industrial waste, penalty for non-adherence, etc., need to be seen by the concerned regulatory authorities.

13. Talking about the current environmental challenges, she informed that water, land and air contamination associated with growth are increasing exponentially. The share of the most polluting sectors in India's exports has increased dramatically during the last decade. In addition to the contribution of increased economic activity, coastal development and livelihoods are under stress due to higher incidences of severe weather events. She alerted that by mid-century, the mean annual temperature in India is projected to increase by 1.1° C to 2.3° C. These trends indicate the need for greater investment in environmental management and subsequent implementation.

14. While discussing the best environmental practices, Smt. Rao said that there is no dearth of worth replicating best practices as across the globe many innovative strategies are being implemented to deal with environment degradation. The issue is how to replicate them in our country. The strategy that worked successfully in one geographical region may not give same results in other regions, if not improvised as per the geographical situation of the concerned region. We actually need an '*Aatmanirbar*' concept for drafting our own strategies area wise, rather than blindly replicating the foreign strategies on Indian soil.

15. Smt Rao appreciated the U.S. Environmental Solutions Toolkit, which is a user-friendly database highlighting scientific analysis, regulatory structures, and some examples of U.S. companies offering relevant solutions.

16. Citing the Victoria's latest solar panel system built to reduce CO₂ footprints and generate enough energy, Smt. Rao applauded the steps taken by the Government of India in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible. The National Solar Mission targets installing 100 GW grid-connected solar power plants by the year 2022.

17. She further shared the innovative strategies designed and developed by the CSIR-NEERI, like Bio Mining and Bio Capping of 37 Acres of MSW dump by clearing 7.5 tons of legacy waste in Bhopal, which actually helped in reduction in air and water pollution; green fire crackers, green crematoria, improved challah, to name a few.

18. Concluding her presentation, Smt. Rao called for increased participation of citizens towards arresting the polluting agents and improving the quality of air, water and land. Until the citizens change their mindset and adopt eco-friendly approach in their day-to-day lifestyle, situation will remain grim.

19. **Prof. N. H. Ravindranath**, Indian Institute of Science, Bengaluru, continued the session with his presentation on Best practices of Environment Management in India and Abroad. Talking about the environment management, Prof. Ravindranath said that environmental degradation and climate change is a "Human Rights" issue, and it could

deprive safe living conditions to communities (air pollution, heat stress, flooding, coastal erosion, etc.), deprive access to clean drinking water, food security, livelihoods; expose communities to diseases, etc. Climate change can accentuate environmental degradation; land, water, biodiversity, etc. He opined that the goal of environment management should be to protect communities and nature from “Harm, Damage and Loss”, from climate change and environmental degradation. By protecting the environment (air, water, forests, oceans, etc.) and mitigating the climate change, we can protect humans and provide healthy living conditions and ensure access to clean water and air, food and nutrition, health, etc. He pointed out that the need of the hour is to conserve natural resources and biodiversity, restoration of degraded resources, reduce waste and pollution, pollution abatement, reduction of GHG emissions, building resilience to climate change, replication of best practices and bringing them to region specific to make impact visible.

20. Prof. Ravindranath, further in his presentation, focused on clean water and climate change. Though clean water is a human rights issue for a healthy life, water pollution occurs everywhere in India in the form of salinity, fluoride, arsenic, iron, nitrates, coliform, fecal contamination, sewage, waste-water and industrial waste contamination, etc.

21. Access to adequate potable water is the first challenge in most villages, towns and cities. As ground water is the major source of drinking water in India, its declining levels in most districts is worrisome. And, even if water supply is available, the quality of water remains a serious concern, as majority of villages lack access to clean water.

22. To take care of the degrading levels of potable water and to maintain wholesomeness of aquatic resources, the Government of India enacted the Water (Prevention and Control of Pollution) Act 1974. The Act prescribes various functions for the Central Pollution Control Board (CPCB) at the apex level and State Pollution Control Boards at the State level. These Boards have from time to time issued guidelines to ensure protection and management of water bodies. He further discussed the Karnataka Water Policy-2019, which is yet to be implemented in the State. To ensure long-term “water security” in the state for its citizens and also ensures adequate availability of water in support of various social and economic development activities of the state, the Karnataka Knowledge Commission, submitted a comprehensive report along with the draft Policy to the Government of Karnataka for its implementation. The report has recommended a complete overhaul, including passing an overarching water framework law to enshrine the goals of water governance, a revamped groundwater act and irrigation act nested within a law for setting up water regulatory authorities at state, basin and sub-basin level, reshaping water-related agencies to increase citizen voice, transparency and accountability in the governance of the pollution board, the water boards, and city water management as well as radical changes in the staffing and administrative structure of these agencies. This has to be coupled with a new mission for water data collection, analysis, research, dissemination and outreach that provides information at all levels of this nested water governance and to the public, so as to stimulate efficient, sustainable and equitable water management in the state.

23. Apart from this worth replicating Policy, Prof. Ravindranath discussed the water quality issue in United Kingdom and its Environment Act of 2021. The Environment Act 2021 heralds wide-ranging reforms which will hopefully result in more environmentally positive outcomes. He further added that UK water quality standards are set in accordance with the Water Framework Directive and other EU water directives.

24. Coming to the subject of climate change, Prof. Ravindranath, opined that climate is changing at an unprecedented rate, resulting in adversely impacting every aspect of nature and human society, leading to floods, droughts, heat waves, cyclones, sea level rise, etc. It is also adversely impacting food production and nutrition. The health concerns like water-borne and vector-borne diseases cannot be ignored. India is one of most vulnerable countries in the world to climate change risks due to its population size exposed to climate risks. We all know, poor are most vulnerable to climate change impacts (floods, droughts, cyclones). We still do not have robust scientific assessments of impacts on food production, health, biodiversity, etc.

25. **Shri Niranajan Dev Bharadwaj**, Distinguished Advisor of Global foundation for Environment Advancement and Human Wellness, speaking on the theme of Best Practices in Environment Management in India and Abroad and Replication thereof, highlighted a few recently released reports on the subject along with various global best practices that could be replicated in India. While referring to the latest World Air Quality Report 2021, Shri Bharadwaj, emphasized that air pollution affects those that are most vulnerable. He emphasized that human rights cannot be secured in a degraded or polluted environment. Concerned about the fact that New Delhi has been ranked the world's most polluted capital city for second consecutive year, Shri Bharadwaj quoted many domestic and international policies that proved success in controlling problems of degraded environment and climate change. He apprised the Core Group Members that every year, the northern region of India faces the grim problem of rising pollution mainly due to stubble burning in states like Haryana, Uttar Pradesh and Punjab. This fetches a thick layer of smog to cities like Delhi, which is already choking from local sources of pollution. To address the issue of stubble burning, Shri Bharadwaj, shared the success story of Chhattisgarh model, an innovative experiment that has been undertaken by the Chhattisgarh government which involves the setting up of *gauthans*. A *gauthan* is a dedicated five-acre plot, held in common by each village, where all the unused stubble or *parali* is collected through *paralidaan* (people's donations) and is converted into organic fertilizer by mixing with cow dung and a few natural enzymes. The scheme also generates employment for the rural youth. The government supports the transportation of *parali* from the farm to the nearest *gauthan* and Chhattisgarh has successfully developed 2,000 *gauthans* till now. Concluding his presentation, Shri. Bharadwaj stressed upon the need for creation of knowledge portal which will ensure citizen participation, promote peer learning and will put an end to scattered knowledge.

Technical Session 3: Empowering the Local Governments and Authorities to Tackle Environmental Issues

26. **Shri B. Rath**, Technical Expert (WM), National Rainfed Area Authority, began his presentation with a brief introduction about the Authority. An insight into the rainfed regions reveals a grim picture of poverty, water scarcity, rapid depletion of ground water table and fragile ecosystems. Land degradation due to soil erosion by wind and water, low rainwater use efficiency, high population pressure, acute fodder shortage, poor livestock productivity, underinvestment in water use efficiency, lack of assured and remunerative marketing opportunities and poor infrastructure are important concerns of enabling policies. The challenge in rainfed areas, therefore, is to improve rural livelihoods through participatory watershed development with focus on integrated farming systems for enhancing income, productivity and livelihood security in a sustainable manner. A close analysis of various types of rainfed situations would reveal that soil and water conservation, watershed development and efficient water management are the key to sustainable development of rainfed areas.

27. Rainfed regions house the largest proportion of poor people in India. Further, these regions are expected to be the worst affected in the context of climate variability (e.g., natural disasters like frequent droughts, floods, etc.) and, as a result, productivity. In this context, watershed technology is seen as one of the best alternatives for improving land productivity in terms of reducing soil degradation, runoff, improved in situ soil moisture, access to irrigation, and so on, which in turn improves the resilience of the system. In the recent years, the watershed development program in India has transformed from a soil and water conservation initiative to a comprehensive rural development and livelihoods program; although soil and water conservation remains the core.

28. The major challenge of water management in rainfed areas is risk and uncertainty arising out of rainfall failures affecting large areas and huge number of people. The situation is worsening, more so with climate change. Private investments in rainfed agriculture cannot be achieved unless the risk and uncertainty is dealt with. Only the residual risk can be met by insurance. The primary risk can only be met by managing rainfall 'water' locally to meet moisture deficits and dry spells.

29. Taking the discussions further, **Shri. R.R. Rashmi**, Distinguished Fellow and Programme Director, Earth Science and Climate Change, TERI, made a presentation on “Empowering States & Authorities to Tackle Environmental Issues”. Talking about the major environmental issues, such as pollution of air, water, surface, land; waste management; industrial pollution; degradation of forest and land; developmental projects vs environmental protection; addressing climate change, Shri Rashmi opined that all actions for development or environmental protection, we need resources. The resources will always be the backbone of any action.

30. Talking about air pollution, Shri Rashmi, said that air pollution largely is anthropogenic and this has been proved during the COVID lockdowns. To address the issue, we need to adopt clean mobility plans for electrification, fuel cells, hybrid, modal shift, for which subsidy or incentives need to be provided. Universal adoption of clean cooking fuels (LPG/CNG) in

rural and urban areas needs to be ensured, along with strengthening the distribution system and ensuring the affordability to use LPG/CNG. Another suggestion that Shri Rashmi gave was to use the agriculture residues for bio fuels by ensuring sustainable business model.

31. To address water pollution and stress, Shri Rashmi, called for proper monitoring of industrial effluents and emissions standards through stations, networks, labs, etc. At local level, the Municipalities to be held accountable for sewage and SWM management. The District Collector to ensure compliance with public liability insurance act and utilize environmental relief fund for the benefit of the community. At the end, Shri Rashmi felt the need to notify and implement the National Resource Efficiency Policy, which is still in the draft stage. This draft Policy aims to streamline the efficient use of these resources with minimum negative impact on environment.

32. **Padma Shri Sundaram Verma**, a grassroot innovator turned social worker and noted environmentalist grew over 50,000 trees in the arid Shekawati region of Rajasthan using his revolutionary water saving technique 'dryland agroforestry'. The honoured innovator today stands out not only for his innovation, but also for spotting other innovators and inspiring their journey to success. Shri. Verma spoke about his innovative technique that utilizes only one litre of water throughout the lifetime of plant and provides a best-suited solution for conserving water in the arid, semi-arid regions as well as avenues of agroforestry leading to land management, revenue generation and sustainable livelihood. Shri. Verma insisted that all farmers should maintain balance in their agricultural activities. He urged for the need to grow different kinds of crops and understanding the importance of planting trees instead of just planting them for monetary or other kinds of benefits.

33. **Dr. Promode Kant**, Adjunct Professor, Advanced Institute of Wildlife Conservations, Chennai & Director, Institute of Green Economy, begin his presentation with the National Clean Air Program (NCAP) - a national-level strategy for reducing the levels of air pollution at both the regional and urban scales. NCAP has a target for reduction of 20-30% of PM2.5 and PM10 concentration by 2024.

34. Dr. Kant opined that poor air quality was the fourth leading risk factor for early death worldwide in 2019. Waste and biomass burning, domestic fuel, road dust, careless construction activities, vehicular emissions are the prime contributors for alarming air pollution. Ironically, the public at large is both, the cause and victim of pollution. We need to strengthen the Village Water and Sanitation Committees/*Pani Samiti* under the Jal Jeevan Mission.

35. However, there are instances, where local people are victims and not the cause of pollution, like arsenic poisoning of ground water, for example the case of Dharmapuri District. The severity of arsenic poisoning is so grave that it went out of control of the local bodies, and the intervention of the State/Central Governments becomes inevitable.

36. Gradual steadfast change in the climate is paying havoc in the forests and wild life, and the situation is worsening day by day. Climate change is affecting people's lives around the world - access to water, food products, health and the environment. Some of the greatest risks to cities associated with climate change concern water. The increased frequency and intensity of weather events and natural hazards such as sea-level rise and increased precipitation can lead to floods and landslides. Longer-term impacts such as changes in rainfall patterns can affect food security, health and livelihoods. All challenge local governments to think about climate change in a proactive and cross-sectoral way that simultaneously addresses their own particular context.

37. Rising temperature is also leading to the incidents of frequent forest fires across the globe. During summer, when there is no rain for months, the forests become littered with dry senescent leaves and twinges, which could burst into flames ignited by the slightest spark. The Himalayan forests, particularly, Garhwal Himalayas have been burning regularly during the last few summers, with colossal loss of vegetation cover of that region. The forests of Western are more frequently vulnerable to forest fires as compared to those in Eastern Himalayas. This is because forests of Eastern Himalayas grow in high rain density. With large scale expansion of chirr (Pine) forests in many areas of the Himalayas the frequency and intensity of forest fires has increased. Dr. Kant, opined that the best way to control a forest fire is to prevent it from spreading, which can be done by creating firebreaks in the shape of small clearings or ditches in the forests. Satellite based remote sensing technology and GIS tools have been effective in better prevention and management of fires through creation of early warning for fire prone areas, monitoring fires on real time basis and estimation of burnt scars. He also suggested that ban on felling of trees in Himalaya at areas located above 1,000 meters above mean sea level needs reconsideration by the Supreme Court.

38. Deforestation is also affecting the wildlife, which is posing a great threat to human population. As human populations and demand for space continue to grow, people and wildlife are increasingly interacting and competing for resources, which can lead to increased human-wildlife conflict. Attacks on humans and livestock have worsened major threats to tiger conservation such as mortality, removal of individuals from the wild and negative perceptions of the animals from locals. Even non-predator conflicts are common, with crop-raiding by elephants and macaques persisting in both rural and urban environments, respectively. Concluding his presentation, Dr. Kant urged the local authorities to take adequate action in this regard.

Technical Session 4: Protecting the Population Especially Vulnerable Sections Thereof from the Impacts of Climate Change

39. **Dr. R.K. Dogra**, Dy. Director, ICFRE, highlighted dependency of individuals on forest to fulfill their various basic needs. He drew attention of the panelist on various supporting roles that ICFRE is playing to mitigate the impact of climate change which includes developing REDD+ strategies. He said that Climate change poses disproportionate risk and is a result of complex set of interactive conditions. Vulnerable populations are especially

affected by Climate Change. He mentioned the achievements of ICFRE, which include, National REDD+ strategy, Safeguards Information system for REDD+ for minimizing the negative impact of Climate change, State REDD+ Action Plans, assisting capacity building of State Forest Departments, Knowledge Products development on REDD+, capacity building program for training, trainings on REDD+ MRV for local communities, measurement of forest carbon stocks, development of resource manuals & brochures, Focused research and promotion of cultivation of trees outside forests.

40. **Dr. Ruchi**, Scientist G, Wildlife Institute of India, stated that there is a need to take a landscape approach and to create buffers around protected areas and forests. She said that there is a lack of an integrated approach to handle climate change. Wetland, waterbodies, biodiversity, they all play crucial role in climate change. She mentioned that vulnerability of people largely stem from degradation of natural resources and therefore people should play an active role in conservation and in fact the active supporters must be adequately trained and paid.

41. **Ms. Patricia Mukhim**, Editor, The Shillong Times, a leading Daily of Meghalaya, highlighted the deteriorating condition of environment in the state of Meghalaya due to non-implementation of rules and guidelines. Sharing about the Operation cleanup, 2019, she said that citizens taking responsibility for behavioral change is crucial and which in turn is significant for climate change. We still have a top down approach and we don't believe in common man's wisdom. Climate change creates huge inequality in society, she said. She also highlighted the unregulated activities still undertaken in the State of Meghalaya, like mining and transportation of coal. Unregulated coal mining with no environmental norms in place has resulted in acid mine drainage into rivers and streams. Heavy deforestation continues and although the State Forest & Environment Department has banned charcoal production, trees are continued to be felled for charcoal burning.

42. Ms. Patricia Mukhim further stated that two important rivers in Meghalaya are already dead – the rivers Lunar and Lukha in Jaintia Hills, due to the effluents released by the 11 cement companies in a single district. She emphasized that there are a lot of community conservation projects running, like in the State of Nagaland and we need to bring them forward and integrate them with modern learning systems. She opined that the Government must partner with citizens' initiatives; Citizens' Monitoring Forum must be set up, which would report to NHRC so that the Commission can make precise interventions and there is a need to do a survey of climate change impacts on agriculture, fisheries, air quality which is shortening our lives. She suggested that we should immediately start with river rejuvenation and reclamation and there must be strict regulation on quarrying and sand mining that has reduced the flow of rivers. She also recommended that Climate change must be included in school curriculum.

43. **After detailed deliberations, inter alia, the following recommendations emerged:**

43.1 The Union and State Governments should make efforts to ensure effective and expeditious punishment of polluters and violators of environmental laws. These efforts should include:

- (i) Strengthening of Pollution Control Boards (PCBs) and other regulatory authorities by:
 - (a) Appointment of persons, having adequate knowledge and past experience in implementation of environmental laws, as Chairperson, Member-Secretary and on other key positions.
 - (b) Creation of separate investigation and prosecution wings in Pollution Control Boards.
 - (c) Regular training and skill up-gradation of officials posted in the investigation and prosecution wings.
 - (d) Expansion of the existing network of monitoring stations to cover each area vulnerable to pollution and degradation in each district to detect air and water pollution and to maintain statistics.
- (ii) The Union and State Governments should ensure that in the cases where an industry/project has started establishment and/or operations without obtaining mandatory prior consent/clearance, application for grant of such consent/clearance should be considered only after complaint before the competent court under relevant provisions of the environmental laws is filed against the persons and/or authorities responsible to initiate the work.
- (iii) Union and State Governments as well as the Pollution Control Boards should endeavour to ensure public involvement at State and district levels for adherence to the prescribed environmental norms and prosecution of offenders by:
 - (a) Creating public awareness through print, electronic and social media, as to provisions of environmental laws including duties and responsibilities of the Pollution Control Boards and harmful impacts of environmental pollution/degradation on enjoyment of basic human rights.
 - (b) Establishment of an online portal to receive information and evidence (documentary, photographic, audio, video) regarding pollution and environmental offenders and making it mandatory for the concerned Pollution Control Boards to examine each information/evidence received on the portal and to display the outcome of examination of each such information/evidence. The Union Government should endeavour to make the portal operational as early as possible.

- (c) Making it mandatory for the Pollution Control Boards to include in their annual reports a chapter containing details of:
 - I. Investigation of cases involving violation of environmental laws and prosecution and conviction of environmental offenders.
 - II. Information and evidence received by the Board, *inter-alia* on online portal, where complaints have not been filed by the Board along with reasons thereof.
- (d) Making it mandatory for the State Pollution Control Boards to place on their website, a copy of each Consent to Establish (CTE) and Consent to Operate (CTO) issued by it.
- (e) Making it mandatory for the Union Government, State Pollution Control Boards and State Environment Impact Assessment Authorities to place on their websites a copy of:
 - I. regulatory approvals accorded by them;
 - II. periodic self-monitoring reports on compliance of conditions stipulated in the regulatory approvals received from the project proponents;
 - III. reports on periodic monitoring of conditions stipulated in the regulatory approvals; and
 - IV. reports on actions taken on shortcomings noticed during monitoring.
- (f) Making it mandatory for the concerned project proponent to display at prominent places on the site and in vicinity of each industry/project a copy, both in official language of the State Pollution Control Board and local vernacular language, of Consent to Establish/Operate.
- (iv) State Governments should undertake annual performance audit of the State Pollution Control Boards by independent expert auditors to be appointed by a selection committee consisting of Chief Minister, Leader of Opposition and Chief Justice of the concerned High Court or his nominee. The Auditor should, *inter-alia* identify all cases where State Pollution Control Board has failed to file complaints against the polluters and environmental offenders.
- (v) The State Judicial Academies, State Legal services Authorities and District Legal Services Authorities in collaboration with the Pollution Control Boards should organize workshops, seminars and training programs on various provisions of environmental

laws and harmful impacts of pollution and environmental degradation for all stakeholders.

- (vi) High Courts should establish Special Environmental Courts and ensure speedy trial of the cases involving violation of environmental laws.

43.2 The Union and State Governments should:

- (i) Monitor performance of agencies entrusted to issue pollution under control (PUC) certificates and take appropriate punitive measures in case of false, fabricated or fraudulent certificates.
- (ii) To establish a separate new mechanism to undertake random check of vehicular emission, even of those having pollution under control certificates, and take appropriate punitive and corrective measures in the cases where emission does not conform to the prescribed standards.
- (iii) Undertake regular inspection of fuel quality and take appropriate punitive and corrective measures in the cases where fuel quality does not conform to the prescribed standards.

43.3 The Union Government should Government should endeavour to complete, as early as possible, the ongoing project to establish a geographical information system (GIS) based decision support system (DSS) containing updated layers on each parameter considered for grant of Consent to Establish/Operate and Environmental/Forest/Wildlife/Coastal Regulation Zone Clearances to facilitate the concerned regulatory authority to verify the contents of applications, documents, reports and plans submitted for obtaining these consents/clearances and regularly update the portal.

43.4 Union and State Governments to ensure that persons of impeccable integrity having special knowledge and past experience in the matters relating to environment are only appointed as non-official Chairperson and Members of the Expert Appraisal Committee, State Environment Impact Assessment Authority, State Expert Appraisal Committee, National Board for Wildlife, Forest Advisory Committee, Regional Empowered Committees and Pollution Control Boards. It would be appropriate that the Union and State Governments make rules or orders or guidelines to disqualify a person for being appointed as a non-official member of the afore-mentioned Committees/Authorities/Boards if he:

- (i) has been convicted and sentenced for an offence, which in the opinion of the Union or the concerned State Government involves moral turpitude; or
- (ii) is of unsound mind and stands so declared by a competent court; or
- (iii) is an undischarged insolvent; or
- (iv) has been removed or dismissed from service of the Government or organisation or undertaking owned by the Government; or

- (v) has in the opinion of the Union or the concerned State Government such financial or other interest in any of the project to be considered by the concerned Committee or the Authority or the Board.

43.5 The Union Government should formulate objective, unambiguous and transparent guiding principles/parameters and citing norms for acceptance and rejection of proposals seeking prior Consent to Establish/Operate, Environmental/ Forest/ Wildlife/ Coastal Regulation Zone Clearance.

43.6 The Decision Support System for processing of applications seeking prior consent/clearance should have a section on environment management knowledge, containing details of all available best practices on prevention, minimization and mitigation of environmental pollution and degradation.

43.7 The Union and State Governments should create public awareness through print, electronic and social media about best practices on prevention, minimization and mitigation of environmental pollution and degradation.

43.8 The Union and State Governments may launch schemes/programmes to provide financial assistance for adoption and mass propagation of the identified best practices.

43.9 The Union and State Governments may endeavour to establish environmental innovation funds at centre and state levels to sponsor research on prevention, minimization and mitigation of environmental pollution and degradation.

43.10 The Union and State Governments may institute appropriate awards to recognise and felicitate the industries and entrepreneurs for development, promotion and adoption of good practices on prevention, minimization and mitigation of environmental pollution and natural degradation.

43.11 Each Local Body should establish an environmental cell to plan, supervise and monitor various activities to prevent, minimize and mitigate environmental pollution and degradation and for waste management.

43.12 Each local body should earmark a certain minimum percentage of its annual budget for activities relating to prevention, minimization and mitigation of environmental pollution, degradation and waste management.

43.13 The State Finance Commissions may undertake assessment as to requirement of funds by local bodies for prevention, minimization and mitigation of environmental pollution/degradation and waste management and make appropriate recommendations and to encourage studies for the purpose by expert institutions/organizations.

The meeting ended with a vote of thanks by Smt. Anita Sinha, JS, NHRC.

List of Participants

NHRC Officials

1. Justice Sh. Arun Mishra, Hon'ble Chairperson
2. Justice Sh. M.M. Kumar, Hon'ble Member
3. Smt. Jyotika Kalra, Hon'ble Member
4. Dr. D.M. Mulay, Hon'ble Member,
5. Sh. Bimbadhar Pradhan, Secretary General
6. Sh. Surajit Dey, Registrar (Law)
7. Smt. Anita Sinha, Joint Secretary
8. Sh. H.C. Chaudhary, Joint Secretary
9. Sh. Sudesh Kumar, Senior Research Officer
10. Ms. Lakshmi Kumari, Junior Research Consultant,
11. Ms. Saaniya Shrivastav, Junior Research Consultant,
12. Mr. Shambhu Chaurasia, Junior Research Consultant

Members of Core Advisory Group

Expert Members:

1. Dr. M.C. Mehta, Founder, M.C. Mehta Environmental Foundation
2. Shri R R Rashmi, IAS (Retd.), Distinguished Fellow & Programme Director, The Energy Resources Institute (TERI)
3. Dr. Promode Kant, IFS (Retd.), Adjunct Professor, Advanced Institute of Wildlife Conservation, Chennai & Director Institute of Green Economy
4. Prof N H Ravindranath, Professor (Retd.), Center for Sustainable Technology, Indian Institute of Science.
5. Smt. Patricia Mukhim, Editor, The Shillong Times Pvt. Ltd. Rilbong, Shillong, Meghalaya
6. Shri SundaramVerma, Environmentalist
7. Shri Niranjana Dev Bharadwaj, Distinguished Advisor, Global Foundation for Environmental Advancement and Human

Ex officio Members:

1. Shri Neelesh Kumar Sah, Joint Secretary, Ministry of Environment Forest and Climate Change
2. Dr. Prashant Gargava, Member Secretary, Central Pollution Control Board (CPCB)
3. Dr. R.K. Dogra, IFS, Dy. Director, Indian Council of Forestry Research and Education (ICFRE)
4. Shri B. Rath, Technical expert, National Rainfed Area Authority,
5. Smt. Padma Rao, Chief Scientist, CSIR-NEERI, Nagpur
6. Dr. Ruchi, Senior Scientist G, Wildlife Institute of India (WII),
